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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OKLAHOMA

COPY

Plaintiff,)
)
)
vs.) No. M-1417
)
)
ARMSTRONG WORLD INDUSTRIES,)
INC., VERMONT TALC COMPANY,)
et al.,)
Defendants.)

VOLUME I

OF THE DEPOSITION OF BARRY CASTLEMAN

Taken on Behalf of the

Defendants

on July 5th, 6th and 7th 1989

in Baltimore, Maryland

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C E R T I F I C A T E

APPEARANCES	1-3
STIPULATION	5
DIRECT EXAMINATION BY MR. CROSBY	.6
CROSS EXAMINATION BY MR. HINKLE	125
CONFERENCE WITH THE MAGISTRATE	.176
FURTHER CROSS EXAMINATION BY MR. HINKLE	200
CROSS EXAMINATION BY MR. WAGNER	336
VOLUME II	339
CROSS EXAMINATION BY MR. GOSS	340
CROSS EXAMINATION BY MR. HOOD	351
FURTHER DIRECT EXAMINATION BY MR. CROSBY	.438
CROSS EXAMINATION BY MR. PERRINE	.536
CROSS EXAMINATION BY MS. HAGLUND	.537
FURTHER CROSS EXAMINATION BY MR. HOOD	539
JURAT	565
CERTIFICATE	566

S T I P U L A T I O N S

It is hereby stipulated and agreed by and between the parties hereto, through their respective attorneys, that the deposition of BARRY I. CASTLEMAN may be taken on behalf of the Defendants, on this, the 5th, 6th 7th day of July, 1989, in the City of Baltimore, Maryland, by Marjorie Parker Miller, Certified Shorthand Reporter and Notary Public within and for the State of Oklahoma; taken by notice and subpoena.

It is further stipulated and agreed by and between the parties hereto, through their respective attorneys, that all objections to questions propounded and answers thereto made, except as to the form of the question or the responsiveness of the witness' answer, may be made at the time of the trial when said deposition is offered in evidence, with the same force and effect as if said objections were made at the time of the taking of this deposition.

It is further stipulated and agreed by and between the parties hereto, through their respective attorneys, that the time of filing is waived.

1 Thereupon, the witness was produced by the defendants:

2 BARRY I. CASTLEMAN

3 the witness hereinbefore named, being first duly cautioned and
4 sworn to testify the truth, testified as follows:

5 CROSS EXAMINATION

6 BY MR. CROSBY:

7 Q. Would you give us your full name, please?

8 A. Barry Ira Castleman.

9 BY MR. CHEYNEY: Usual stipulations?

10 MR. HAYS: Yes.

11 MR. CROSBY: Can we also agree that if there
12 is an objection by one defendant, that that objection
13 is adopted by all defendants, unless a defendant
14 opts out?

15 MR. HAYS: No. I won't agree to that. I want
16 them to stay awake for this deposition and not read
17 papers, like they did at the last one.

18 MR. PIERCE: That's going to make a horrible
19 transcript.

20 MR. HAYS: We will see how it goes. If it gets
21 too garbled, we'll discuss it later.

22 MR. CROSBY: Let me caution everybody, in case
23 you all didn't hear it, the plaintiffs are refusing to
24 allow the objection by one defendant to be deemed
25 adopted by all defendants. Therefore, if anyone has

1 an objection, you should state your objection in full,
2 and each defendant that wishes to join that objection
3 should adopted that objection, and maybe state it in
4 full, and restate any additional objections. And then
5 if anyone wishes to adopt any additional objections,
6 you should state that on the record also.

7 MR. HAYS: Let the record reflect that we have
8 agreed to reserve all objections except as to form.

9 MR. RHODES: I might also state at this time,
10 Jim, that the Northern District of Oklahoma has set
11 forth a certain asbestos trial protocol which has been
12 adopted in the in re: Asbestos Cases, insofar as they
13 pertain to Mark Iola's plumbers and pipe fitters.
14 That protocol I anticipate will in large be adopted
15 in the tire worker litigation with a specific provision
16 being in that protocol that an objection by one
17 defendant is deemed to be an objection by all.

18 I think that it is something that is sensible
19 here, and will take up a lot less time if we go ahead
20 and adopt it.

21 MR. HAYS: Because of the lack of attention
22 during past depositions and repetitive question asking,
23 not to a great degree, but some, I think it will help
24 the defendants pay a little more attention to the
25 deposition. If it gets to be a little out of control,

1 then we will discuss it at a later time.

2 MR. CROSBY: I do not agree with the comments
3 nor observations of counsel, and move that they be
4 stricken.

5 MR. PIERCE: I join in that, and move that they be
6 stricken.

7 MR. JAMES: I also join in that.

8 MS. HAGLUND: I also join in that.

9 MR. PERRINE: I also join in that.

10 MR. SCRIVNER: I also join in that.

11 MR. CHEYNEY: I'll join.

12 MR. GOSS: I join in that too.

13 MR. CROSBY: Mr. Hays, do you and your witness
14 need to step outside to finish your conference, or can
15 we continue?

16 MR. HAYS: Which conference?

17 MR. CROSBY: Well, I just saw you whispering to
18 him something, and I didn't know if needed to --

19 MR. HAYS: You hadn't started asking him
20 questions.

21 MR. CROSBY: Yes, sir, I had asked him, we had
22 proceeded with the deposition.

23 MR. HAYS: Has the deposition started?

24 MR. CROSBY: Yes.

25 MR. HAYS: All right.

1 MR. CROSBY: He has been sworn, and I had
2 asked him to state his name, and he had stated it
3 on the record.

4 MR. HAYS: I didn't realize we were that
5 far into it.

6 MR. JAMES: Pay attention.

7 Q. (By Mr. Crosby) Could you tell me what counsel
8 just whispered in your ear?

9 A. He made some kind of a wisecrack about you all. I
10 don't even remember what he said.

11 Q. Do you have a preference as to how you are
12 addressed, as to whether it's Mister, or Barry, or Doctor, or
13 what?

14 MR. HAYS: Counsel, you've deposed the man
15 several times, you ought to know what he prefers.

16 MR. CROSBY: No, sir, I don't.

17 MR. HAYS: You don't remember?

18 MR. CROSBY: No, sir, I don't.

19 THE WITNESS: Mr. Crosby, you can call me
20 whatever you feel comfortable calling me. It doesn't
21 matter to me one bit.

22 MR. CROSBY: All right.

23 THE WITNESS: At least not in the deposition.

24 Q. (By Mr. Crosby) Sir, I have taken your deposition
25 previously, and I understand you have been deposed on other

1 occasions. Could you tell me approximately how many times you
2 have been deposed?

3 A. I have been deposed over 60 times since March of
4 1979 in asbestos litigation.

5 Q. And how many times have you been deposed in other
6 litigation?

7 A. I don't think I have been deposed in any other
8 litigation but asbestos. There was an asbestos case in
9 Delaware that also involved DuPont and chemical hazards, and I
10 think I talked a little bit about chemical hazards as well.

11 Q. And approximately how many times have you
12 testified in a court of law?

13 A. About 85 times.

14 Q. Approximately what percentage of those is asbestos
15 related?

16 A. All of it.

17 Q. Even though you're apparently familiar with the
18 procedure, if I ask you a question and you do not understand a
19 portion of the question or the entire question, please let me
20 know, because if you answer the question it will be assumed by
21 me that you have understood the question, all portions of the
22 question, and have given your best complete answer under oath.
23 Is that all right with you?

24 A. Yes.

25 Q. Were you served with a subpoena with respect to

1 this deposition?

2 A. Yes.

3 Q. Did you bring that with you?

4 A. I think so. I think it's in here.

5 MR. CROSBY: We will mark as Exhibit 1 the
6 deposition subpoena with the attached Exhibit "A". And
7 as Exhibit 2 the notice to take deposition stamp
8 filed June 23, 1989, Jack C. Silver, U.S. District
9 Court.

10 MR. HAYS: For the record, we filed an
11 objection to the subpoena served on Dr. Castleman,
12 provided him with a copy, and I forwarded a copy to
13 Mr. Hinkle as lead counsel. And soon as I get copies
14 I will give the rest of the counsel copies.

15 MR. CROSBY: Exhibit 3 is apparently the
16 coversheet that apparently accompanied the subpoena.
17 And Exhibit 4 is a copy of plaintiff's objection on
18 behalf of Barry I. Castleman.

19 Q. (By Mr. Crosby) Sir, have you filed personally or
20 has any attorney on your behalf filed any objection to the
21 subpoena and the request for documents to be produced?

22 A. I haven't been represented by counsel on this
23 matter, nor have I filed any documents on my own.

24 Q. Did you bring any documents with you to this
25 deposition?

1 A. Yes.

2 Q. Could I have the materials that you brought with
3 you, please?

4 A. (Witness produces documents.)

5 Q. When were you first contacted by the attorneys
6 involved in these cases in connection to consulting with them
7 or testifying?

8 A. Sometime within the past year. I don't know
9 exactly when.

10 Q. Do you recall who first contacted you?

11 A. Yes. I am pretty sure it was Mr. Hays, although I
12 spoke with Mr. Norman as well within a short time after the
13 initial contact.

14 Q. What was your understanding of your role in
15 connection with these cases?

16 A. My understanding was that in addition to -- well,
17 that these attorneys represented rubber workers, and that the
18 rubber workers they represented had allegedly developed
19 asbestos-related diseases, as well as pulmonary problems
20 attributable to talc. That I was to basically testify as I
21 have done many times before about the history of knowledge
22 about the hazards of asbestos and the foreseeability of harm to
23 people using asbestos products. And also to similarly
24 investigate the history of literature relating to the hazards
25 of talc so that, so as to develop a basis for opinions about

1 the availability of knowledge to sellers of talc used
2 industrially as in rubber plants.

3 MR. CROSBY: For the record, and on behalf
4 of my client, let me state that we are proceeding
5 with this deposition in the nature of a discovery
6 deposition to determine this witnesses' opinions or
7 purported opinions relating to the matters that he
8 has just revealed to us. By going forward in this
9 manner, we do not in any way wish to waive any
10 objections that we have to this witness offering any
11 quote, "expert opinions", close quote, in areas
12 relating to health aspects of any substance,
13 particularly asbestos with respect to my clients.
14 Nor do we wish to in any way waive any objections
15 that we may have with respect to this witness testifying
16 in any respect as an expert, including as an expert with
17 respect to the development of the scientific and medical
18 literature relating to the alleged health aspects or
19 hazards of asbestos, talc, soapstone and clay.

20 MR. CHEYNEY: Join in that objection.

21 MR. HOOD: I am Bobby Hood, on behalf of
22 CCR we join in that.

23 MR. JAMES: Greg James, on behalf of
24 Owens-Illinois and Pittsburgh-Corning, we also join in
25 that.

1 MS. HAGLUND: I'm Jacqui Haglund, on behalf of
2 A.W. Chesterton we would also join in that objection
3 in statement of non-waiver position.

4 MR. PERRINE: Anchor Packing also joins.

5 MR. SCRIVNER: We join also on that statement.

6 MR. GOSS: Tom Goss, on behalf of Vermont Talc,
7 we join.

8 MR. DUNNERY: John Dunnery, on behalf of Southern
9 Talc, we also join.

10 MR. CROSBY: And I guess as a precaution, I will
11 make that objection on behalf of those defendants that
12 are not present. It was my understanding, and I think
13 it may have been some other's understanding that this
14 witness was going to be deposed in another matter first
15 thing this morning, and that these proceedings would not
16 begin first thing. So some individuals may not be here
17 at this time since the matter was rescheduled when the
18 other deposition became moot. If they don't want to
19 adopt it, they can certainly unadopt my statement, but
20 I think in light of Counsel not allowing all defendants
21 to adopt automatically, I will do that on their behalf
22 for whatever good that may do them.

23 Q. (By Mr. Crosby) Sir, let me begin with Exhibit 5,
24 which is a letter, appears to be a letter of May 19, 1979 to
25 Mr. Hinkle from Mr. Norman with the copy to you relating to

1 this deposition. Do you recall receiving that document?

2 A. Yes.

3 Q. Let me show a document that I will mark as Exhibit
4 No. 6 which is a letter to you or to Mr. Barry Castleman, and
5 its salutation is: "Dear Dr. Castleman". But it encloses or
6 purports to enclose a check in the amount of \$1,000 as payment
7 to you as a retainer of your services as an expert in all tire
8 worker cases, an additional payment of \$300 made payable to
9 Paul Edholm, E-d-h-o-l-m for his services in researching and
10 providing us with articles dealing with the substance of "State
11 of the Art" in talc. Do you recall receiving that letter, and
12 did you in fact receive those funds?

13 A. Right, yes.

14 Q. Have you provided us with the copy of the articles
15 of Mr. Elholm's research with respect to "State of the Art" of
16 talc?

17 A. You have materials from Edholm there. You have
18 additional materials as well.

19 Q. All right, sir. I will show you what I have
20 marked as Exhibit 7 which purports to be a letter from Mr. Hays
21 to you. By the way, in one document your name is spelled
22 B-e-r-r-y, and some others it's B-a-r-r-y. Which is the
23 correct?

24 A. B-a-r-r-y.

25 Q. All right, sir. Advising you of this case or some

1 cases being scheduled for trial and requesting that you block
2 some time out on your calendar. Did you receive that document?

3 A. Yes.

4 Q. Have you blocked the time out?

5 A. No.

6 Q. Do you anticipate presenting testimony in the
7 trial of this case live?

8 A. If the case goes to trial I do, yes.

9 Q. Next which is number -- Defendant's 8 is a letter
10 or purports to be a letter to you from Ms. Conn, C-o-n-n,
11 forwarding two articles, one entitled "Respiratory Morbidity in
12 Rubber Workers", and another one, "Mortality P-a-t-t-e-r-s-n
13 Among miners and Millers of Non-abestiform Talc". Do you
14 recall receiving Exhibit No. 8 and the articles referred to?

15 A. Yes.

16 Q. A letter dated June 29th, I think of this year?

17 A. Yes.

18 Q. It was Federal Expressed, so you should have
19 received it on or about June 30th.

20 A. Yes.

21 Q. Are those articles included in this stack of
22 documents that you have sent me, given to me?

23 A. I don't know if they are or not.

24 Q. Did you request those articles?

25 A. No.

1 Q. Had you --

2 A. I didn't request any articles from Mr. Norman or
3 his associates, although some articles were sent to me partly
4 because Mr. Edholm had misunderstood some of my instructions,
5 and not made me copies of some of the articles which he also
6 sent to the law firm. And so when the law firm realized this
7 they did send me some copies of some articles just to make sure
8 that I got them.

9 Q. Who is Mr. Edholm?

10 A. Mr. Edholm is a researcher I use in Washington DC.

11 Q. Does he work for you exclusively?

12 A. No.

13 Q. How long have you used Mr. Edholm?

14 A. About a year or two.

15 Q. Do you have a CV of Mr. Edholm, or do you know
16 anything about his background?

17 A. I don't have a CV from Mr. Edholm. His
18 background -- I used to use another researcher in Washington,
19 and when she left Washington DC she found Mr. Edholm for me.

20 Mr. Edholm does research. There are occupations in
21 Washington DC that do not exist in most parts of the country,
22 and there are apparently people who make a living just digging
23 things up for people.

24 Q. I agree with that.

25 A. And in Washington this is probably a thriving

1 industry. In any event, Mr. Elholm does this. He has done, in
2 fact, checking I think for News Week and Times, or other kinds
3 of national publications, I forget exactly what they were, but
4 he's told me a little bit about other work that he's done. And
5 so he is basically an individual who is familiar with how to
6 use a library, whether it be a medical library, library of
7 congress or more typical common type of library, or a library
8 in a government agency. He's familiar with how to walk into
9 government offices and ask for access to government files. So
10 I have used him for those kinds of purposes for research in
11 Washington.

12 Q. Do you know what his educational background is?

13 A. No.

14 Q. Do you know if he graduated from high school?

15 A. I don't know. I have never asked him about his
16 educational background. He does very competent work, that's
17 all I can tell you, based on -- he does competent work. Some
18 of it has been very competent, some of it has been competent.

19 Q. Is just competent the same as mediocre?

20 A. No. But, you know, in some cases he's -- Well,
21 there is a certain -- there are certain kinds of individuals
22 who are sharp enough so that once they understand what it is
23 you want they are capable of interpreting that in a way that
24 sometimes goes beyond the letter of the instruction that you
25 may have actually given them in order to be more inclusive in

1 the material that they bring back.

2 Q. What did Mr. Edholm --

3 A. I am finished.

4 Q. I am sorry. What did Mr. Edholm charge for
5 performing whatever it is he does?

6 A. Well, this type of work I pay him \$25 an hour,
7 plus expenses.

8 Q. What other type of work does he do?

9 A. Well, I don't really know what he does for other
10 people. You mean for me, aside from legal work?

11 Q. Just anything that you know about. Because you
12 have indicated for this type of work you paid him \$25 an hour,
13 which indicates to me that for some other type of work you may
14 pay him more or less.

15 A. That's correct. There is other kinds of work that
16 I do for which I pay a lower rate because it's work that I do
17 at my own initiative for which I am not reimbursed by anybody,
18 but work that I feel is interesting and needs to be done, my
19 own research, if you will. And Mr. Edholm is willing to do
20 work of that kind for 15 or \$20 an hour, plus expenses.

21 Q. So he may be performing the same services, it's
22 just that since it's for you individually rather than for a law
23 firm or other entities that may have retained you, he gives you
24 a break on his fee?

25 A. Yes, you could put it that way. And it's

1 basically -- the rates were determined by me and accepted by
2 him.

3 Q. Approximately how many hours per month, or
4 whatever time increment is best suited for your response, does
5 Mr. Edholm perform services for you either at the 25 or 10 or
6 15 or any rate?

7 A. It's very sporadic. Sometimes some months go by I
8 don't talk to Mr. Edholm at all. And then there might be other
9 months where I might have him working on two or three projects
10 at the same time.

11 Q. Do you know anyone else or any other entity for
12 whom Mr. Edholm performs these services?

13 A. Well, as I said, he mentioned some kind of a
14 national publication like Time Magazine or whatever it was, I
15 forget. I don't know who all his other clients are. I have
16 never asked him about his other.

17 Q. Who was the person that he replaced?

18 A. I can't remember her name at this point.

19 Q. Other than the name, other than the person that he
20 replaced, do you know anyone else or have you checked with
21 anyone else with respect to Mr. Edholm's qualifications?

22 A. No. I mean I am satisfied by -- My way of
23 finding out how qualified somebody is is by giving them
24 something to do and seeing how well they do it. That's the
25 only thing that matters to me. I have done that with

1 Mr. Edholm to my own satisfaction. I mean, they could have a
2 PhD, and if they do lousy research, I don't want them for \$10
3 an hour.

4 Q. Did you write Mr. Edholm a letter with respect to
5 what you requested him to do in this situation?

6 A. I think I just told him by phone.

7 Q. Can you recall what you told Mr. Edholm?

8 A. I told him -- I did have a list of references from
9 sometime or another. I had put together a list of old
10 references on talc that I had come across long before I got
11 involved in this litigation, and I sent him those articles.

12 I had also noticed that George Peters in his book,
13 source book on asbestos diseases had references to articles on
14 talc as well. And so I told Mr. Edholm to go through the
15 articles, to first get all the articles on the list that I had
16 on my handwritten list, to then go to the library, locate a
17 copy of George Peters's source book, go through the
18 bibliography in George Peters's book and pull out everything
19 that had talc in the title of the article. And then to go
20 through the articles that he had thus accumulated and look at
21 bibliographies of those articles for references cited by them
22 dealing with health hazards of talc. And this what he did.

23 Q. So if there are articles out there about about
24 talc that don't have the word talc in the title, you may not
25 have it?

1 A. That is right. I don't believe that I have a
2 complete file. I know I didn't have a complete file of every
3 single article that has been written about the health hazards
4 of talc. I have mainly confined my research to the period
5 prior to the 1970s. Although there are articles that are
6 included that go into the 1970s as well.

7 Q. And the materials that you have provided to me are
8 your handwritten notes, is your handwritten list amongst them?

9 A. I don't think so.

10 Q. Do you still have a copy of that handwritten list?
11 I mean there are a couple of handwritten lists here. Are
12 either one of these --

13 A. I don't know if I have that. I probably do. I
14 probably photocopied the handwritten list and sent it to
15 Edholm.

16 Q. Let me mark as Exhibit No. 9 this document that
17 has a title or appears to be a title "Talc in Rubber
18 Industry--" and then insert "--Respiratory Hazards." The word
19 "Respiratory" appears to replace "Health". Could you tell me
20 what Exhibit No. 9 is?

21 A. Exhibit 9 are notes that I made regarding articles
22 that were published that made reference to pulmonary problems
23 attributed to the use of talc in industry, in particular in the
24 rubber industry. The texts are texts that for the most part
25 happen to be texts that I personally own. I have a few dozen

1 old boxs on occupational diseases. But this is by no means a
2 complete review of everything that appears in any textbooks on
3 occupational diseases. This is just a quick look through a
4 sampling of such texts.

5 The journal reports are journal articles relating to
6 chest disease, or abnormal X-ray findings, or normal pulmonary
7 function and so on, in people who worked with talc in rubber
8 plants, rubber plants of various kinds. And these articles
9 were published starting in 1931, and I think the latest one
10 included in this list is 1959. I think at that point I just
11 stopped keeping a list.

12 Q. Did you prepare that Exhibit 9 before or after you
13 had talked to Mr. Edholm?

14 A. Well, I talked to Mr. Edholm on a number of
15 occasions.

16 Q. About this particular project?

17 A. This is after I had gathered up the materials that
18 Mr. Edholm was able to provide me.

19 Q. So did that list on Exhibit 9 include some of the
20 articles that Mr. Edholm located as well as something from some
21 of the journals or texts in your own custody?

22 A. Yes.

23 Q. Let me show you what I have marked as Exhibit 10.
24 Could you identify that for me, please, as to just what the
25 document is, not what it contains?

1 A. This is a summary which I have put together
2 reviewing the literature on talc as a respiratory disease
3 agent.

4 Q. Is that in your handwriting?

5 A. That is my handwriting.

6 Q. Has there been a typed version of that?

7 A. No.

8 Q. Do you use a word processor or any kind of
9 computer in your research or writings?

10 A. I do, but I didn't in this case.

11 Q. Since we are going to resume tomorrow, will you be
12 able to provide us tomorrow the handwritten list that you
13 provided Mr. Edholm tomorrow morning?

14 A. Sure, if I can find it.

15 Q. Have you ever testified in a case involving tire
16 workers or rubber workers?

17 A. No.

18 Q. Never in deposition or in court?

19 A. No.

20 Q. These articles that I have before me that I am
21 going to go through, are these your only copies of these, or
22 are these extra copies?

23 A. These are my only copies. I mean there might be
24 some of these articles I might have other copies of some place.
25 But for the purposes of talc litigation, these are my only

1 copies, this is my only set of such documents assembled for
2 this purpose.

3 Q. We will undertake to label each one since they are
4 clipped and not stapled, then the chance of them getting messed
5 up during the copying process will be reduced, we will label
6 each one with its own exhibit number, and try to get copies
7 made either this afternoon or this evening at a copy service
8 and return the copies or the originals to you so that you will
9 be able to go through and see that you have everything back, we
10 hope.

11 MR. CROSBY: I am assuming that's is agreeable to
12 all the other defendants?

13 Q. (By Mr. Crosby) Do I understand, so that I don't
14 have to guess, tell me, please, sir, if there is a general
15 category buy which this stack of documents can be identified,
16 what this is?

17 A. It's literature on health effects or adverse
18 health effects from breathing talc. There might be one article
19 in there that relates to suspected ovarian cancer in women who
20 were exposed to talc generally. This was published in the
21 1970s.

22 There is also a letter of mine to the Food and Drug
23 Administration in 1972 asking for certain restrictions on use
24 of talc based on that article. But otherwise, the articles are
25 about the hazards, or at least investigations relating to the

1 inhalation of talc.

2 Q. Prior to this deposition, have you testified in
3 any form with respect to health aspects of talc?

4 A. I don't think so.

5 Q. Let me rephrase it, because I don't want it to
6 sound any way other than it's meant. Are you a medical doctor?

7 A. No.

8 Q. Are you taking any courses currently to become a
9 medical doctor?

10 A. No. I have a Doctor of Science Degree from
11 Johns-Hopkins Hygiene and Public Health.

12 Q. I am marking Defendant's Exhibit No. 11, a
13 document -- sir, you always try to stump me with the first one,
14 entitled apparently, and I will butcher some language and I
15 don't mean to, I think its "La Medicina del Lavoro"; is that
16 right? Would you help me with that?

17 A. That was excellent. Of course, I don't speak
18 Italian either. Actually I speak a little Italian when it
19 comes to reading articles on asbestos and talc.

20 Q. Does this article deal -- Let me show you No. 11.
21 Does that deal solely with the subject of talc, if you know?
22 Or is there any other substance that is referred to in that
23 article?

24 A. Well, that is kind of a tricky question, because
25 talc itself is kind of a -- very often a combination of things.

1 But this article is called "Pneumoconiosis from Talc". It's an
2 article by a Dr. Zanelli, Z-a-n-e-l-l-i. In Zanelli's case,
3 worked in a factory making tires for automobiles, according to
4 Page 7 where I have underlined the occupational history and
5 involved exposure to quantities of talc powder according to
6 that.

7 Q. Was this plant in Italy?

8 A. I believe so.

9 Q. Have you ever been to a tire worker plant?

10 A. No.

11 Q. Do you know if the working conditions at the plant
12 made the subject of the article written as No. 11 in any way
13 resemble the plant conditions made the subject of the lawsuit
14 about which we are visiting today?

15 A. Resembles it in the sense that talc is used in
16 rubber processing for similar purposes as an agent to keep, you
17 know, the rubber products from sticking. And I am operating
18 correctly or incorrectly under the assumption that that is the
19 purpose of the talc in the bicycle tire plant, and that is at
20 least similar, if not identical to the use of talc in the tire
21 plant in Oklahoma. But I am stating all my assumptions so that
22 it's very clear what I know and what I don't know, and what I
23 am making assumptions about.

24 Q. Do you know if the talc utilized in the Italian
25 plant was similar or substantially the same as the talc

1 utilized in the Oklahoma plant?

2 A. I don't know about the -- let me take a look at
3 the article again. I don't see a mineralogical analysis of the
4 talc as I look through this article very quickly. I think at
5 this early stage of the literature on talc people weren't
6 focusing in that carefully on the mineralogical constituents of
7 the individual talcs involved in the various plants where
8 adverse effects were reported. But again, it's possible that
9 somewhere in here there is some kind of a description of the
10 mineralogy of the talc involved.

11 Q. What's the date of that article, please?

12 A. 1931.

13 Q. Have you reviewed any of the medical records of
14 any of the individuals in this particular lawsuit?

15 A. No.

16 Q. Have you reviewed any documents or materials of
17 any type with respect to the B.F. Goodrich plant in Miami,
18 Oklahoma?

19 A. No. I think I looked briefly at some kind of a
20 NIOSH survey that was done sometime in the 1970s or the '80s
21 maybe. '80s, I believe.

22 Q. Do you have that with you?

23 A. No, I don't.

24 Q. Do you know if you still have that back at your
25 office or your home?

1 A. I don't know if I have it or if I threw it out.
2 If I have it I will bring it in. I assumed that that was known
3 to you all.

4 Q. Do you know of any of the individuals who were
5 employed at the tire worker plant in Miami, Oklahoma have any
6 disease that is related to their occupation?

7 A. Well, that goes beyond the scope of my area of
8 expertise. I am not here as a physician. I would have to rely
9 on reports of other experts to give you an answer on that. I
10 don't think that legally speaking that is worth much.

11 Q. All right, sir. Let me show you what has been
12 stickered as No. 12. Is that an article entitled "Talc"
13 promulgated or published by the International Labor Office?

14 A. Yes. This is from the International Labor Office
15 Encyclopedia called "Occupation and Health".

16 Q. And the date of that publication?

17 A. 1934 is when the second volume of that
18 encyclopedia was published.

19 Q. So far No. 11 and 12, were both of those provided
20 by Mr. Edholm?

21 A. Yes, I believe that Mr. Edholm came up with these
22 two.

23 Q. Have you conducted an independent survey or
24 undertaken any independent research to determine the accuracy
25 of Mr. Edholm's efforts?

1 A. Well, I have in the sense that I have looked at
2 the articles themselves, and I have found that there are some
3 articles that they cite that are not included. Now, I know
4 what some of those articles say because of secondary references
5 to them in the articles that I have seen. But I am at this
6 time endeavoring to procure those articles, and they will be
7 provided as soon as I get them. So I would say that
8 Mr. Elholm's work was in this particular case good, but not
9 great. There were things that I would have hoped he would have
10 picked up that he didn't pick up, including articles published
11 in the British Medical Journal and British Journal of
12 Industrial Medicine, as well as articles published in foreign
13 language journals.

14 I think I have a good picture of how the literature
15 developed on talc based on what I have here before me, and I
16 can't imagine that anything that is still outstanding would
17 significantly alter opinions that I have developed regarding
18 the foreseeability of harm to workers using talc industrially,
19 particularly in rubber plants.

20 Q. Do you have a list of the articles or references
21 that Mr. Edholm did not provide?

22 A. I don't have it here now.

23 Q. Do you have it back at your office or at your
24 home?

25 A. Well, I have handed it to somebody who's going to

1 get me the references as soon as they can. And I may have it
2 this afternoon. I will give you the list and the articles that
3 I get at that time, either this afternoon or tomorrow.

4 Hopefully this afternoon.

5 Q. To whom did you give that list?

6 A. An attorney with the office of Mr. John Sutter in
7 Baltimore.

8 Q. And when did you deliver that to him?

9 A. I gave that to him this morning just before this
10 deposition started.

11 Q. Was that the handwritten list that you had while
12 you were sitting over there that I seemed to notice before we
13 started?

14 A. I don't know what you noticed. There is a lot of
15 handwritten stuff. But there was one list of articles,
16 references to articles, you may have noticed it, you may have
17 been looking at something else, and it's a list of about, I
18 guess about 15 references, handwritten references, and I have
19 asked Mister -- I am sorry, I don't even know the guy's name,
20 to simply go to the libraries here in Baltimore, medical
21 libraries, and make photocopies of those references. I have
22 given him the citations, and I am sure that he sufficiently
23 qualified, having gone through law school, to go and obtain the
24 medical articles, photocopy them at the library.

25 Q. Based on some of your early comments, I am amazed

1 that you have that degree of confidence in attorneys. Have you
2 done anything to ascertain what his qualifications are, if any,
3 with respect to retrieving medical articles?

4 A. No. But with all due respect to attorneys, I
5 think any idiot could get these articles. If they could talk
6 their way into the medical library they could get the articles
7 off the stacks. The journals are in alphabetical order within
8 each journal series, they are in chronological order. When you
9 hand somebody a list and you give them the journal name, volume
10 number, page numbers and the year, well, I think that even a
11 rather incompetent attorney could probably manage to come back
12 with the article.

13 Q. Do I understand that you prepared this list by
14 reviewing these articles that we have begun going through that
15 Mr. Edholm retrieved for you?

16 A. That's right.

17 Q. So your list was made from other lists?

18 A. My list was made from my review of other articles,
19 and from the articles themselves I see references to earlier
20 work that the authors of those articles cited, and I am simply
21 going back and getting those articles.

22 Q. Were those articles cited in a bibliography of
23 articles?

24 A. Right.

25 Q. So a bibliography is a form of a list?

1 Q. Oh, yes, in the sense that they are listed at the
2 end of the articles that I was reviewing.

3 Q. So your list is made from several lists that are
4 contained in these articles?

5 A. In the sense that the bibliographies of the
6 articles can be described as a list, yes.

7 Q. Do you know anything about the mineralogical
8 components of any of the talc used at the Miami, Oklahoma
9 plant?

10 A. No.

11 Q. Do you consider yourself to be an expert in the
12 field of mineralogy?

13 A. No. I understand Dr. Langer is involved in the
14 case. He can answer your questions about that probably quite
15 well.

16 Q. Which Dr. Wagner? Dr. Chris Wagner?

17 A. I'm sorry. I said Langer.

18 Q. Oh, Langer, Dr. Art Langer?

19 A. Yes.

20 Q. So you would defer to him with respect to
21 mineralogy?

22 A. Certainly.

23 Q. Do you find him to be a competent mineralogist?

24 A. As far as I am able to judge mineralogists, yes,
25 not being one myself.

1 Q. Do you know if the talc or talcs referred to in
2 any of these articles that I have before me, which we will
3 eventually mark as exhibits, are the same or substantially the
4 same as any of the talcs utilized at the Miami, Oklahoma plant?

5 A. All I know is that they are referred to as
6 industrial grade talcs. In some cases there are mineralogical
7 type of analyses provided, in other cases there are not. And
8 so as I say, I haven't focused on the mineralogy of the talc
9 used in the Miami, Oklahoma plant mainly because I really
10 haven't had the time to look at these kind of collateral
11 aspects of the case which are interesting, although not
12 essential to my testimony. And so for that reason, I can't
13 really render the kind of comparisons you're asking me about.

14 Q. With respect to the articles that you do not have
15 and that the lawyer is attempting to obtain, are you going to
16 defer rendering opinions with respect to scientific development
17 of knowledge relating to talc, soapstone and clay until you
18 have reviewed those articles? Or are you prepared to provide
19 your opinions in those categories without the benefit of those
20 articles?

21 A. Let's just say that I will offer tentative
22 opinions about talc with the proviso that I consider it
23 extremely unlikely that such opinion would be altered in light
24 of the documents that I have sought to obtain and expect to
25 obtain later today. You can either deal with it that way, or

1 you can wait until the documents come in. But I really don't
2 expect that these documents contain any great surprises. I
3 know what a number of them say, because I have seen them
4 referenced in other articles and described in substance in
5 literature. And taking as a whole the literature on talc forms
6 I think a fairly clear picture to the extent that we know what
7 we know forms a very clear picture. I don't believe that we
8 know everything about the hazards of talc today.

9 Q. Have you personally gone to the library and
10 conducted any research with respect to the health aspects of
11 talc?

12 A. Yes. I have included articles in here that came
13 out of my own files which I got out of the library at various
14 times. As I said, I have been interested in talc as a health
15 problem particularly since I started reading about asbestos in
16 1970, '71.

17 Q. Did you have articles in your own -- as a result
18 of your own research that Mr. Edholm did not obtain?

19 A. Yes. Generally they were more recent articles,
20 but I have a few of those, and I believe they are included
21 here.

22 Q. Let me show you what is No. 13, it's the annual
23 report of Chief Inspector of Factories and Workshops for the
24 year 1933. Does this relate to talc? Or asbestos? Or both?
25 Or neither?

1 A. Relates to both. Talc is also described here as
2 French chalk. Starting on Page 63 Dr. Merewether describes
3 examinations of workers that he had conducted, continues onto
4 64 and 65.

5 Q. Are those individuals that were engaged in the
6 tire and rubber industry?

7 A. Yes, I believe so.

8 Q. What was the nature of those individual's exposure
9 to asbestos in that particular report?

10 A. I don't believe there is any reference to asbestos
11 exposure in connection with these talc cases. The asbestos,
12 it's part of an annual report of the chief inspector. Asbestos
13 is described in another part of the report.

14 Q. So this is the non-asbestos section of the report?

15 A. This is the talc section of the report. It's got
16 a headline, it's italic title is "French Chalk". And I believe
17 there is a similar entry somewhere for asbestos. In any event,
18 I see tables in which asbestos is described. Yes, asbestos is
19 described under heading "Silicosis and Asbestosis".

20 Q. But insofar as you are able to determine from
21 reading that particular document, was the talc or French chalk
22 asbestos free? Or is one able to determine from that article?

23 A. That is what I am trying to find out. I don't
24 think that there is any comment on -- no. Asbestos is only
25 used by way of comparison to talc or French chalk, and it's

1 stated asbestos is more dangerous, has a greater fibrosis
2 producing power.

3 Q. What is your understanding, if you have an
4 understanding, as to the nature of any asbestos exposure that
5 may have occurred at the Miami, Oklahoma plant?

6 A. Well, the plant contained thermal insulation,
7 which at least in part may be asbestos. And the deterioration,
8 installation, maintenance and removal of this thermal
9 insulation was a cause of exposure to asbestos dust in the air
10 in the plant, particularly for workers whose jobs involved
11 maintaining the insulation in the plant or piping.

12 Q. Was that a matter brought out in that Merewether
13 report?

14 A. Merewether doesn't talk about asbestos in rubber
15 plants. He's just talking about workers exposed to talc and
16 what he found regarding it.

17 Q. In your review of the literature, when was the
18 first publication addressing asbestos -- excuse me. Let me
19 start all over. First report, please, sir, addressing health
20 aspects of asbestos exposure from thermal insulation products
21 in a tire worker or rubber plant?

22 A. Dozens and dozens of reports on asbestos disease
23 from exposure to asbestos insulation dust going back to 1932,
24 but I can't off the top of my head recall the specific
25 reference that describes an individual whose exposure to such

1 dust was confined to working in a rubber plant. There may not
2 be any such article in print today. I just don't know.

3 Q. Were you asking Mr. Hays?

4 A. I was just asking Mr. Hays if he knew of any such
5 articles. Off the top of my head --

6 MR. HAYS: He won't let me talk to you during
7 the deposition.

8 MR. CROSBY: Sir, if you wish to talk to the
9 witness, all I ask is that you let us know that you
10 wish to talk with him, and let us know that you want
11 to take a recess to have a discussion, and if it's
12 appropriate, then I don't have any trouble with that.

13 MR. HAYS: Thank you.

14 MR. CROSBY: We may break down on what is
15 appropriate.

16 Q. (By Mr. Crosby) Would you defer to Mr. Hays on
17 that matter?

18 A. All I was asking is whether Mr. Hays knew of such
19 an article. If there are articles, I would expect that it
20 would have been published in recent years.

21 Q. And even lawyer may know about that?

22 A. Especially a lawyer might know about that where it
23 relates to his own clients, yes.

24 Q. What is your hourly rate nowadays?

25 A. For research, or for deposition and trial

1 testimony?

2 Q. Any of your various hourly rates, what are they,
3 please?

4 A. I charge \$150 an hour for research, and \$200 an
5 hour for deposition testimony or trial testimony.

6 Q. And about what percent of your time is spent in
7 depo trial testimony?

8 A. It varies. Up until September of last year I had
9 a much more diverse life. Since September of last year I have
10 been involved in I think an average of about three trials a
11 month, and probably one deposition, would be my best guess, in
12 the asbestos litigation.

13 Q. Three trials per month, and about how many
14 depositions? I'm sorry. I was writing.

15 A. I think probably about one deposition a month.
16 But up until last September things were a lot more managable in
17 terms of my time to do other things. I still do work on other
18 things.

19 Q. Are you subpoenaed to appear at these three trails
20 coming up?

21 A. Not usually. I go by agreement.

22 Q. So you voluntarily go?

23 A. I haven't recognized a distinction between a
24 subpoena appearance and an appearance that I make without a
25 subpoena. I usually agree to go or I don't go.

1 Q. I understand you might not make a distinction, but
2 my question here is: Do you voluntarily go when you appear at
3 trial?

4 A. Yes. My involvement in the asbestos litigation is
5 voluntarily.

6 Q. So about what percent of your time since September
7 of '88 has been involved in the asbestos litigation?

8 A. It's probably been more than half of my time for
9 the first time in ten years, probably slightly more than half
10 of my time.

11 Q. And approximately what percent of your income is
12 derived from asbestos litigation?

13 A. The last time I looked it was, let me see, it was
14 over 90 percent. Most of my other work is work with public
15 interest groups, environmental groups, labor unions in other
16 countries, health activists in other countries. Generally work
17 that pays little or nothing.

18 Q. Do you have any other consulting or research
19 activities that pay you \$150 per hour other than
20 asbestos-related?

21 A. Well, I have done legal work of other kinds and
22 charged the same rate.

23 Q. What other legal work have you done and charged
24 the same rate?

25 A. I was contacted by some other lawyers at one point

1 that were interested in the history of threshold limit values,
2 and had some chemical cases.

3 Q. What lawyers were they?

4 A. I don't remember their names.

5 Q. How long ago was that?

6 A. About a year ago.

7 Q. Was it before or after you authored the article
8 that appeared in the --

9 A. It was after my article that appeared in the
10 industrial journal.

11 Q. Do you recall if those lawyers represented
12 plaintiffs or defendants?

13 A. They said they represented plaintiffs.

14 Q. And how much time did you spend on that project?

15 A. I don't remember.

16 Q. Well, are we talking ten hours or 100 hours?

17 A. Something in between.

18 Q. Closer to 50, or closer to ten?

19 A. I think my charges to them were something like
20 \$2500.

21 Q. What was the result of that endeavor?

22 A. I don't know.

23 Q. I mean what did you find?

24 A. I don't know what they did with the information.

25 Q. What did you find?

1 A. I don't even remember exactly what I did for them
2 now. My life has been something of a blur with the amount of
3 asbestos litigation that has gone to trial since last
4 September.

5 Q. Do you recall what chemicals were involved?

6 A. There was a long list of chemicals. Some of them
7 I recognized, some of them were trade name chemicals I didn't
8 recognize.

9 Q. Do you know if it involved asbestos, talc,
10 soapstone or clay?

11 A. It didn't involve any of those.

12 Q. Let me show you what has been marked as No. 14,
13 which appears to be a copy of a portion of the 1934 Annual
14 Report of the Chief Inspector of Factories and Workshops. Does
15 that deal with talc? Or asbestos? Or both? Or neither?

16 A. It deals with both. Talc is covered under the
17 heading "French Chalk" on Page 65.

18 Q. With respect to your opinions relating to talc, do
19 you make any distinction as to the mineralogical make-up of
20 talc, or the form, be it fibrous or non-fibrous?

21 A. Yes.

22 Q. Do those distinctions play any role in the
23 formation of the opinions that you have made respecting the
24 development of knowledge relating to alleged health aspects of
25 talc?

1 A. Yes and no. My current view, and this is
2 something that started to gain more discussion as the
3 literature on talc itself started to grow and people started
4 wondering why some people were finding so much more severe
5 affects than other people looking at talc workers.

6 My current view is that the presence of silica and
7 asbestiform fibers came to be identified as the types of agents
8 that would exacerbate or add to respiratory hazards associated
9 with so-called pure talc as a mineral. And that these kinds of
10 contaminants, if you want to call them that, were frequently
11 found mixed with talcs that were sold as industrial talcs,
12 which were therefore, mineralogically speaking, mixtures, not
13 pure substances.

14 Q. Have you formed any opinions as to whether or
15 not -- Let me strike that and start again.

16 Do your opinions with respect to health aspects of quote
17 "talc" close quote, vary with respect to the development of
18 knowledge depending on whether or not the talc is quote
19 "contaminated" close quote, with asbestos or silica?

20 A. It depends on the time frame. If a manufacturer,
21 for example, of -- or a seller of industrial grade talc was
22 concerned about the possibility that his product might be
23 harmful, it would certainly be necessary for such a
24 manufacturer to conduct certain types of analyses on the
25 product at a minimum to gain some insight into whether the talc

1 that he was selling was of the more or less notorious kind.

2 But the literature on talc, and here we really are
3 getting into what my opinions are, the literature on talc
4 reflect a considerable amount of confusion about just what it
5 is that was causing some talc workers to develop a disabling or
6 even fatal pneumoconiosis, and other talc workers to suffer far
7 less severe effects, even though they had evidently been
8 exposed to substantial concentrations of talc for a number of
9 years.

10 So it's not as if the literature here on talc is clear
11 cut. There are various mineralogical constituents which varied
12 with the different types of talcs that were being used. At
13 least by the 1940s some of the writers appeared to be picking
14 up on that fact, and saying, you know, maybe there is something
15 about this talc that is worse than that talc, and starting to
16 compare their findings with the findings of their predecessors.
17 And so this is the way the knowledge evolved. But at the same
18 time there was -- there were no clear cut findings that there
19 is one bad factor that is present in industrial grade talcs
20 that is causing all the disease that is associated with talc
21 workers. No one ever seems to come up with a single cause or a
22 single agent.

23 There have been certainly some agents that had been
24 recognized, or very similar to agents that had been recognized
25 as health hazards, principally silica and asbestiform fibers.

1 But the talcs, the talc itself as distinct from those
2 ingredients that were mixed in with the number of industrial
3 talcs was also indicted in a number of articles as a cause of
4 lung disease.

5 I am sorry to give you such a long-winded answer, but
6 we were eventually going to get into this anyway. Seems to me
7 sometime in the 1940s they started taking a closer look at what
8 was in these industrial talcs and trying to figure out what
9 were at least the principal causes of adverse health effects
10 attributed to inhaling such talcs.

11 Q. You used the word "indicted" in your answer. Was
12 there ever any -- was there continuing literature relating to
13 quote "talc" close quote, and its quote "contaminents" close
14 quote, after the '40s?

15 A. Sure.

16 Q. Is it within your area of expertise to opine as to
17 whether or not quote "talc" close quote, contaminated with
18 quote "asbestos" close quote, causes an asbestos-related
19 condition or disease as opposed to asbestos from some other
20 source?

21 A. Well, I guess I would have to answer that by
22 referring to the literature itself which makes frequent
23 comparisons between the scarring, the lung scarring caused by
24 the industrial talcs, and the lung scarring caused by asbestos.
25 And this is commented on both radiologically and pathologically

1 in the literature that I am referring to here. The findings of
2 asbestos bodies in the lung tissues, or asbestoslike bodies in
3 lung tissues, the finding of other appearances that at least
4 resemble the picture of asbestosis. And this is commented on I
5 think starting in the 1940s by some of the authors writing
6 about talc exposed workers.

7 So there are similarities at least between the types of
8 damage between asbestos which were kind of separately
9 established in the case of asbestos workers, and types of
10 damage observed in talc workers. The similarities were noted
11 in the literature I think starting in the 1940s.

12 MR. CROSBY: I move to strike that as
13 nonresponsive.

14 Q. (By Mr. Crosby) My question is: Is it within
15 your area of expertise?

16 A. It's within my area of expertise to relate what
17 was expressed in the literature which was available to
18 manufacturers and sellers of industrial talc, yes.

19 Q. So you're not saying that you personally have
20 formed an opinion based upon what you have read from that
21 literature, you are telling me that within your area of
22 expertise you can relate to me your understanding of what the
23 literature imparts?

24 A. I'm not sure I understand your question. I am
25 doing the same kind of thing with talc that I have done with

1 asbestos, and that is at a minimum relating what the literature
2 itself says, and relating the availability of that literature
3 in the United States as evidenced by the literature itself.

4 Q. All right, sir. And I think you are familiar with
5 my prior objections, and my probably continuing objection with
6 respect to that testimony on your behalf.

7 But I am just trying to find out that with respect to
8 this particular issue, your area of purported expertise is that
9 you can relate what the literature imparted to you or to others
10 who may have read it, but you do not form an independent
11 scientific opinion with respect to, for example, causation in a
12 case where an individual has been exposed to quote "pure talc"
13 close quote, quote "talc contaminated with asbestos" close
14 quote, or exposure to quote "asbestos" close quote, from some
15 other source?

16 A. Okay. I think I understand what you're asking
17 better now. I am not involved in diagnosing anybody's
18 condition medically. I don't testify about causation in these
19 cases either individually, either in terms of individual cases
20 or epidemiologically speaking as individuals as members of a
21 group. I don't say that this person got his disease from that
22 cause. That's never been included in the area of testimony
23 that I give.

24 Q. In these particular cases, assuming that you are
25 presented with a hypothetical to assume that an individual has

1 what has been from time to time referred to as quote "an
2 asbestos-related disease or condition", close quote, if you are
3 presented with the facts that that individual or groups of
4 individuals were exposed to quote "pure talc" close quote,
5 quote "talc contaminated with asbestos or asbestiform fibers"
6 close quote, and/or exposed to quote "asbestos" close quote,
7 from other sources such as thermal insulation, is it within
8 your area of expertise and will you proffer testimony as to
9 what was the cause of the particular disease entities in that
10 person with those multiple exposures?

11 A. I would be very loathe to offer such kinds of
12 opinions. I would probably refuse to offer an opinion on such
13 a thing, simply because there are other people who are better
14 suited to deal with that onerous job, and I leave it to them.
15 That's -- what you're asking is really much more a subject for
16 a treating physician's testimony than it would be for someone
17 like me, if I understand your question correctly in terms of
18 analyzing an individual case and, you know, how much of this
19 person's exposure came from the talc, and how much of this
20 person's exposure came from the thermal insulation. In terms
21 of sorting out liability or whatever, I mean, that's not
22 something I even want to go near.

23 Q. My question did not go to sorting liability. I
24 believe that's something suited for juries in court. Mine was
25 sorting out or attempting to sort out causation.

1 A. It amounts to the same thing.

2 Q. Fortunately you are not the judge in this case,
3 because it may not. So I'm trying to find out if you do
4 endeavor to opine generally or specifically as to causation in
5 a case of multiple exposure?

6 A. I don't expect to do anything of the kind. I am
7 not that familiar with the details of these individual's
8 exposures, and it's not the kind of testimony I have ever
9 given. It's not the kind of testimony I look forward to giving
10 in this case either.

11 Q. Would you give it if asked?

12 A. I can't imagine circumstances underwhich I would
13 give it if asked. I mean the circumstances would have to be so
14 clear cut as to make the question not even worth asking. In
15 other words, a single type exposure and no other exposures.

16 Q. So multiple causations or multiple exposures to
17 multiple types of talcs, be they contaminated or not
18 contaminated, be they fibrous or non-fibrous, in conjunction
19 with exposure to asbestos from other sources would preclude
20 your testimony in that area?

21 A. Again, your question is not that clear. But if I
22 can just restate what I won't expect to be doing in this case,
23 and that is trying to weigh the -- quantitatively weighs the
24 contributions that multiple exposures may have made in
25 producing disease in any individual. Is that clear enough?

1 Q. I think your answer --

2 A. I will to the best of my ability avoid offering
3 such testimony. I don't think it's really appropriate for me.
4 I am not especially expert in that sort of thing. Not that
5 doctors necessarily are much more expert in it, but it's more
6 appropriate, at least, for the doctors to answer those kinds
7 of -- physicians, I should say, to answer those kinds of
8 questions. So I leave that pleasant task to them.

9 Q. Did you bring with you any medical or scientific
10 articles relating to your opinions of the development of
11 scientific and medical knowledge relating to health aspects or
12 alleged health hazards of asbestos?

13 A. No. We have gone over all that many times. And
14 as you know, I have left behind 150 transcripts and a 700 page
15 book on that subject.

16 Q. Have you --

17 THE WITNESS: Can we take about a ten minute
18 break?

19 MR. CROSBY: Anybody got a problem with a ten
20 minute break? Go ahead. It's fine with me.

21 (Whereupon, a short recess was taken.)

22 Q. (By Mr. Crosby) I have provided you with exhibits
23 that have been marked numbered 15 through 75. Would you please
24 look through those, and at this time I would like to just mark
25 them as exhibits to this deposition, we will go through them in

1 detail later, but are those the articles in conjunction with
2 No. 11 through 14 that we have already reviewed that you
3 reviewed with respect to the development of medical and
4 scientific knowledge relating to talc, soapstone and clay and
5 upon which you in part base your opinion regarding the
6 development of knowledge?

7 A. Yes.

8 Q. And in addition to those, as I understand it,
9 there are a few other articles which some other lawyer is in
10 the process of obtaining today?

11 A. That a lawyer who has been given a list of
12 references by me has gone to the library to obtain photocopies
13 of, yes.

14 Q. With respect to -- Let me make sure I have my
15 numbers right. With respect to Exhibits No. 12 through 14, are
16 you aware of any evidence or information that Owens-Corning
17 Fiberglass, my client in this matter, in any way attempted to
18 alter, delay, suppress or in any other way influence or attempt
19 to have an impact on medical and scientific literature
20 reflected in those exhibits?

21 A. No.

22 MR. HAYS: Talking about specifically 12 through

23 14?

24 MR. CROSBY: Yes, sir.

25 THE WITNESS: No, is the answer.

1 Q. (By Mr. Crosby) Are you aware of any evidence
2 that Owens-Corning Fiberglass in any way attempted to alter,
3 delay, suppress or in any way influence or have any impact on
4 the medical and scientific literature or the development of
5 such knowledge insofar as it relates to talc, soapstone or
6 clay?

7 A. No.

8 Q. I can repeat that question, or if you can hold it
9 in your mind I will not. But let me go at it one more time.
10 Do you have any evidence that Eagle-Picher in any way attempted
11 to alter, delay, suppress or in any manner influence or have
12 any impact on publication or development of medical and
13 scientific literature relating to talc, soapstone or clay?

14 A. No.

15 Q. If you can hold that question in your mind, I will
16 not repeat it. If not, please let me know. I will ask you
17 that same question with respect to Owens-Illinois?

18 A. The answer would be no.

19 Q. Same question with respect to Keene?

20 A. The answer is no.

21 Q. The same question with respect to Celotex or
22 Phillip-Carey?

23 A. The answer is no.

24 Q. The same question with respect to Armstrong World
25 Industries or Armstrong Industries?

53

1 A. The answer is no.

2 Q. Same question with respect to GAF Corporation?

3 A. No.

4 Q. Same question with respect to Baldwin?

5 A. No.

6 Q. Same question with respect to Pittsburgh-Corning?

7 A. No.

8 Q. Same question with respect to Fibreboard?

9 A. No.

10 Q. It may be that we can shorten it. Do you have any

11 information -- or excuse me, do you have any evidence that any

12 corporate entity in any way attempted to influence, delay,

13 alter, suppress or have an impact on the development or

14 publication of medical and the scientific literature relating

15 to talc, soapstone or clay?

16 A. I have seen something to the effect that some

17 company was in contact with Ken Lynch in 1950. I have received

18 a copy of this from the offices of Casey and Gerry in southern

19 California, San Diego. I don't think that company is involved

20 in this case though.

21 Q. Do you recall the name of that company?

22 A. No, but I imagine Mr. Hays does.

23 Q. Do you have a copy of the documents to which you

24 are referring?

25 A. Yes. I will bring them tomorrow.

1 Q. Is it your position or opinion that contacting a
2 person who conducts research by a corporate entity indicates
3 that they are in some way trying to influence the medical and
4 scientific literature?

5 A. Well, no, not contact, per se. Contact itself is
6 the way people learn about these things. But it's the nature
7 of the contact that raised some question about the role of the
8 company. But since I haven't -- I got this information over
9 the weekend, I opened it up at about 11:00 last night, and I
10 looked at it very briefly yesterday. And I haven't brought it
11 because I understood that the company involved was not involved
12 in this case as a defendant, and I had enough to deal with
13 without bringing it along. I didn't really see that it was
14 terribly relevant to this case. But you are certainly welcome
15 to examine it, and if you want to ask me what my opinions are
16 on it, I will take a closer look at what it actually says
17 before I accuse any company of doing anything the least bit
18 improper in the area of occupational health.

19 MR. CROSBY: Mr. Hays, if you have it here
20 with you, it might shorten matters.

21 MR. HAYS: I don't.

22 MR. CROSBY: Do you know what it involves?

23 MR. HAYS: Generally. I would have to review
24 it myself though.

25 MR. CROSBY: If you would bring that with you

1 tomorrow, please.

2 Q. (By Mr. Crosby) But other than that, are you
3 aware of any person or entity --

4 MR. HAYS: You are addressing Dr. Castleman;
5 right?

6 MR. CROSBY: Dr. Castleman, yes.

7 Q. (By Mr. Crosby) --other than the correspondence
8 to Dr. Lynch, are you aware of any entity that in any way
9 attempted to alter, delay, suppress or otherwise have an impact
10 or influence on the medical and scientific literature relating
11 to talc, soapstone or clay?

12 A. Not at this time. As far as I know, there have
13 been virtually no legal discovery conducted in that area. And
14 since one does not find out about what has been suppressed from
15 the medical literature by going to medical libraries I wait the
16 development of additional information before closing the door
17 on that subject.

18 Q. Do I take it from that that your opinions relating
19 to any efforts that in your opinion purport to demonstraight
20 attempts to alter, suppress or have an impact on medical and
21 scientific literature is based upon information obtained from
22 discovery only?

23 A. No. But discovery has rendered the literature a
24 lot more readable in some cases in terms of truly understanding
25 what was going on in terms of understanding what was published,

1 as well as what was withheld or distorted.

2 Q. It's my understanding that tomorrow you desire
3 that we adjourn at 1:00 for some purpose?

4 A. Yes.

5 Q. Could you relate to me what that is?

6 A. Yes. The United States Environmental Protection
7 Agency proposed in January of 1986 to ban asbestos in the
8 United States, ban the continuing use of asbestos, to ban some
9 products immediately, and others over a period of time. I have
10 received a call from the Environmental Protection Agency owing
11 to my continual contact with the EPA over that rule as a
12 consultant to the Natural Resources Defense Counsel. The EPA
13 is going to hold a public announcement briefing at 3:30
14 tomorrow afternoon. It's public, so any of you who want to
15 come can come too. And at that time the EPA will announce what
16 its final rule is going to be on the subject of the asbestos
17 bans or phase down rulings. That is why I am leaving early.
18 The meeting at the EPA is going to be tomorrow afternoon.

19 Q. Are you the one making the announcement? Or do
20 you just wish to be present when the announcement is made?

21 A. I will be present when the announcement is made.
22 The announcement is being made by someone in the Environmental
23 Protection Agency. Either the administrator or one of the
24 assistant administrators.

25 Q. Do you serve in any official capacity with the EPA

at this time?

A. No.

Q. Do you with respect to the asbestos ban or proposed ban?

A. I did in the early stages that led to the proposal ten years ago.

Q. What is your understanding as to what the announcement will be tomorrow?

A. I haven't any idea what they are going to do. I know what the proposed rule was, and I would guess that the final rule isn't going to be a whole lot different than the proposed rule, but it's speculation on my part to say what they finally came down with.

There were extensive hearings held after the proposed rule was published in the federal register, and the EPA has a duty to consider all the information that it obtained during in the course of those hearings from all interested parties. And I have really -- Since then there has been a change of administration, so I really don't know quite what to expect. I would only be guessing if I tried to answer the question today.

Q. Do you have any opinion -- Well, let me strike that and start again.

Do you have any evidence that any entity that manufactured soap or produced in any way asbestos-containing products at any time or in any way attempted to alter, delay,

1 suppress or otherwise have an impact on the development of or
2 publication of medical and scientific literature relating to
3 asbestos? That just goes for a yes or no.

4 A. Do I have information to the effect that asbestos
5 manufacturers did that?

6 Q. Not information, mine is evidence. If evidence
7 and information are synonymous do you --

8 A. I have what I consider evidence of that, yes.

9 Q. Did you bring that with you today?

10 A. No, that has been the subject of about 60 other
11 depositions, and the subject of a book, and as well as 85 --
12 well, not trial testimonies, but a number of trial testimonies
13 in which corporate knowledge was covered.

14 Q. I understand that. And as you understand and know
15 from our previous depositions, I frequently ask questions that
16 I have not thought of to ask before, and the way that I do that
17 is to look at what you contend is evidence, and see if there
18 are additional questions that I may wish to ask. Or if looking
19 at the evidence that I have and the questions that I have
20 previously asked deem that it's appropriate to ask a question
21 in a different way, bearing in mind that particular information
22 or evidence that you have, and ask that question. So my
23 question remains, although you may feel that you have addressed
24 this issue adequately, I personally do not, and so I ask again
25 if you have brought that material with you?

1 A. No, I have not.

2 Q. Is it available in your office or your home?

3 A. Most of it is, yes, from various files, numerous
4 files. It's all been produced before in prior depositions that
5 I've given, including depositions for you, I believe.

6 Q. I cannot recall my last deposition of you in this
7 area, but as I recall it, we went for two days, we did not
8 complete the deposition, it was adjourned, the cases were
9 resolved, the deposition was never completed, and it has been
10 several years since then. And I was hoping to update it to see
11 if you had anything new.

12 A. That was 1986, I remember the occasion well. I
13 produced boxes and boxes of documents for you at the time.

14 Q. Do you also recall that the deposition was
15 adjourned and not completed?

16 A. Well, I mean, I consider that a formality, not
17 being a lawyer.

18 Q. We lawyers consider it more than that.

19 A. I understand that. It's like if I were the
20 witness, and I were able to ask you at the end of any
21 deposition that I have ever been involved in, if I were able to
22 ask the defense lawyers, Are you satisfied now? I am sure the
23 answer would be no. So in that sense, it's a continuing
24 exercise. And when someone deposes me for two days --

25 MR. CROSBY: Mr. Hays, do you want to break?

1 MR. HAYS: Yes. Did you want to take a
2 lunch break now?

3 THE WITNESS: Let me just finish what I am saying.

4 Q. (By Mr. Crosby) My question to you was simply:
5 Doctor, do you recall that that deposition was adjourned?

6 A. All I recall is that it lasted two days, and I
7 produced an enormous amount of information. I don't recall the
8 details of whether I signed the deposition or whether it was
9 considered adjourned or still left open.

10 Q. Do you recall that we had not gone through all of
11 the various boxes and documents that you produced?

12 A. At the time I believe we did. I don't recall. I
13 mean maybe we went through part of it and not all of it.

14 Q. Do you still have those materials in the same
15 files and in the same position so that you can obtain them and
16 bring them here tomorrow so that we can continue where we left
17 off?

18 A. I have no idea what I produced then. I understood
19 this was a deposition related to the history and knowledge
20 about the hazards of talc. I would like to --

21 Q. Let me see if that is your understanding, and if
22 it is, we may be able to shorten this matter. Is it your
23 understanding that you will not be providing testimony in this
24 case relating to the development of scientific and medical
25 knowledge relating to health aspects of asbestos?

1 A. No. It's just that asbestos has been covered at
2 nauseam in prior depositions and trials. Talc is a new issue.
3 It is even in my opinion a legitimate area for a discovery
4 deposition to be held. I think that on the basis of the fact
5 that there have been so many depositions and so on over
6 asbestos, that the people who want to ask about talc should be
7 given priority, and then if you want me to rent a trailer and
8 bring all my files in here about asbestos and talk about that
9 all over again, we can deal with that later, Mr. Crosby.

10 Q. Well, I would request that if it's necessary for
11 you to rent a trailer to bring the materials relating to
12 asbestos that you do so.

13 A. Oh, I am sure you would.

14 Q. And I would also ask you to bring those materials
15 that were requested with the subpoena, and the request for
16 production attached thereto, which relates to all documents
17 that you have reviewed or prepared, and upon which you rely in
18 support of any opinions or conclusions which you have now or
19 will testify to at the time of trial concerning development of
20 scientific knowledge relating to the alleged hazards of
21 asbestos, talc, soapstone and clay.

22 MR. HAYS: We have objected to that. You have a
23 copy of our objection.

24 MR. CROSBY: I am aware, I was served with a copy
25 of your objection this morning.

1 MR. HAYS: Mr. Hinkle was also served earlier.

2 MR. CROSBY: It's an exhibit, it speaks for
3 itself. The witness has stated that he did not file
4 any objection. So I renew that request, and ask you or
5 remind you that you should comply with that request,
6 and that I will in light of the fact that you don't
7 have it here now, we're about to adjourn for lunch,
8 you can bring it back with you after lunch. If that's
9 not sufficient time, you can bring it with you tomorrow
10 morning.

11 MR. HAYS: What did you do with the boxes of stuff
12 you got earlier? Did you ever ship that back to him?

13 MR. CROSBY: He insisted on maintaining custody of
14 it, Counsel.

15 MR. HAYS: Who, the attorney?

16 MR. CROSBY: I don't know. Maybe Lisa Blue did.
17 She was there for the plaintiffs.

18 THE WITNESS: You mean to tell me you don't
19 have copies of the stuff I gave you in '86?

20 MR. CROSBY: I think that we have some portions
21 of those documents, but I don't think that we have all
22 of those documents.

23 THE WITNESS: It's not my fault.

24 MR. HAYS: Were they copied?

25 MR. CROSBY: If you recall, you were reluctant

1 to let them out of your custody, and some of them were
2 unable to be copied.

3 THE WITNESS: I was willing to let them all
4 be copied, as I recall. I didn't have any objection to
5 producing them.

6 Q. (By Mr. Crosby) In any event, the issue is an
7 opportunity to ask you questions about what some of the
8 documents say, and what your opinions are from them. If I can
9 get them here another way, I will do it. If you have them here
10 and have the originals, plus the fact that I don't know if you
11 have something in addition to what we had in 1986.

12 A. Well, I think that would be easier to cover if you
13 just wanted to go company by company and say, "What is new
14 since 1986?" I could at least attempt to give you answers to a
15 question like that. I mean everything that is known up to
16 1986, almost everything of significance in this litigation is
17 recorded in my book, and it's also a matter of discussion and
18 production that took place as of around the time that you
19 deposed me in 1986. There hasn't been a whole lot of research
20 or new material discovered relating to corporate knowledge on
21 asbestos or published literature on asbestos disease
22 historically speaking since 1986.

23 I would be happy to try and answer questions of that
24 nature, which would accomplish I think the same objective for
25 you as a more burdensome approach of asking me to bring

1 everything that I've got in my house that has got the word
2 asbestos written on it.

3 Q. Doctor, I understand that you may not appreciate
4 the obligation that I have as an attorney to represent my
5 client.

6 A. I appreciate that that obligation is sometimes
7 invoked in cases where it gets stretched beyond its
8 legitimation, too.

9 Q. Are you able to testify here under oath today all
10 matters upon you which you base your opinion or positions with
11 respect to what efforts were attempted or that took place with
12 respect to what you contend resulted in an alteration, delay,
13 suppression or otherwise impact on the development of or
14 publication of medical and scientific literature relating to
15 asbestos?

16 A. I can certainly take a crack at it. And basically
17 I would be relying on my own book as a source of information
18 which is neatly arranged in Chapter 9 and appendix four of the
19 second printing of the second edition, which has been available
20 for well over a year now.

21 But if you want me to go through that exercise and
22 basically tell you what is in my book about corporate knowledge
23 and particular manipulations of scientific literature and so
24 forth, we can take the time to do it. I am just saying that I
25 would rather deal with issues related to talc first, because if

1 we start talking about asbestos in the manner that you seem to
2 be laying out, there is no end in sight in terms of the time it
3 could potentially take to go over all this old ground. And so
4 I think the people who have an interest in talc have a
5 legitimate priority to ask their questions first.

6 As you were asking before about talc, those questions
7 are the kinds of questions that I think should come first. And
8 if we want to talk about asbestos, all the rest of it, we can
9 do that later.

10 Q. I understand your preferences, but I am here to
11 ask those questions among -- I mean certain questions, among
12 those questions are questions relating to opinions or matters
13 that you contend relate to asbestos since you are proffered as
14 an expert in that area and you have volunteered to do so. So I
15 would ask that you produce those documents tomorrow.

16 I will make an effort to obtain from my office copies of
17 what I can from prior depositions, and we will proceed with
18 areas of inquiry along those lines when the documents have
19 arrived. If you prefer, we can adjourn to -- where is your
20 office?

21 A. My office is in my home, and I prefer that we do
22 not adjourn to my office.

23 Q. Will you bring the materials -- can you bring them
24 after lunch?

25 A. No. I mean it would extend the time taken for

1 lunch and reduce the time available for the deposition. I
2 would rather bring them tomorrow if necessary, and perhaps you
3 can communicate to the court and find out whether it's
4 necessary.

5 MR. HAYS: If you would like for me to do so,
6 I will. And are you adopting that portion of the
7 subpoena that objects to an over broad request for
8 production?

9 THE WITNESS: Sure.

10 MR. CROSBY: We object to the attempted adoption.

11 MR. HAYS: It's timely. You just served the
12 subpoena a few days ago. Do you know when you served
13 that subpoena? Since you're relying on it, I'm sure you
14 do. Do you know when that subpoena was served, Counsel?

15 MR. CROSBY: I will ask the witness.

16 Q. (By Mr. Crosby) When were you served?

17 A. Either Friday or Monday. No, hold it. I suppose
18 it was Friday.

19 Q. What efforts, if any, did you take to comply with
20 the subpoena other than the collection of the materials that
21 have been marked as exhibits to this deposition?

22 A. That was all I had time for.

23 Q. Those materials weren't in one place?

24 MR. HAYS: Most of them are in the book you
25 have got sitting over there in front of you,

1 Counselor.

2 MR. CROSBY: Well, let's ask that.

3 Q. (By Mr. Crosby) Sir, how many of those articles
4 referred to that have been attached --

5 MR. HAYS: We're talking about asbestos articles,
6 the box that you had in your office. He's also referred
7 to a book.

8 MR. CROSBY: It's not in my office, Counselor.

9 MR. HAYS: You don't have those documents in your
10 office?

11 MR. CROSBY: I do not believe that I do.
12 I said I'm going to check, and whatever I do have,
13 I will have sent. My recollection is that that
14 deposition is among other things, we've got copies of
15 his second edition hot off the press, which I have paid
16 for, and Ms. Blue took her copy, and I have yet to be
17 compensated for that.

18 Q. (By Mr. Crosby) So what I am trying to find out
19 is of the exhibits marked here through 75, how many of them are
20 referenced in your book?

21 A. These talc articles contain only a few which are
22 referenced in my book. Those articles tend to be of the
23 general nature on the subject of pneumoconiosis or they are
24 textbooks on occupational diseases, which are referenced in my
25 book. So I would say maybe 10 of these articles, maybe 15 at

1 the most, are referenced in the book of asbestos because they
2 also cover asbestos as well as talc.

3 Q. Of the exhibits that we have attached to this
4 deposition being No. 11 or 12 through 75 which are references
5 or articles, weren't those all collected in one place prior to
6 this deposition?

7 A. The talc articles?

8 Q. Yes.

9 A. No. I mean before I got involved in this
10 litigation, I didn't do this kind of a historical review of
11 literature on talc. I was familiar with the fact that talc
12 literature went way back.

13 Q. Excuse me, Doctor. Let me see if I can rephrase
14 my question in more artful manner. Are those articles that
15 number through 75 as exhibits, are those the ones that were
16 accumulated by Mr. Edholm?

17 A. Some of them are, some of them are articles that I
18 had in my possession either because an interest, prior interest
19 in talc, or because of my interest in asbestos.

20 Q. Did you keep those talc articles in a single place
21 as they accumulated?

22 A. Yes. You mean the ones that I had from years
23 before?

24 Q. Yes, sir.

25 A. Yes.

1 Q. Did you then gather the ones that Mr. Edholm gave
2 you and put them with them?

3 A. Yes.

4 Q. So when you were served with a subpoena you had a
5 single file that contained those articles; correct?

6 A. The talc articles, yes. And that is what you have
7 got.

8 Q. What else did it take you the rest of the time
9 since being served with a subpoena until now to gather up to be
10 prepared?

11 A. Just one other thing I had to do.

12 Q. What's that?

13 A. Read the articles.

14 Q. So prior to the subpoena you had not reviewed the
15 articles?

16 A. I had gathered the articles, but I had not had
17 time to sit down in a methodical way and read them all.

18 Q. So prior to receipt of the deposition notice and
19 subpoena, had you favored the attorneys for the plaintiffs and
20 these or any rubber and tire worker cases with your opinions
21 concerning the development of the state of the knowledge or
22 excuse me, development of the knowledge relating to health
23 aspects of talc, soapstone and clay?

24 A. No. I think I understand your question. I have
25 never ventured such opinions, and I haven't really done the

1 literature review on the basis of which such opinions could be
2 safely ventured.

3 Q. And at what point did you reveal to counsel for
4 the plaintiffs your opinions concerning development of
5 knowledge on talc, soapstone and clay?

6 A. Last night, to the extent that I have some
7 opinions on that.

8 MR. CROSBY: How long do you want to take for
9 lunch, Mr. Hays?

10 MR. HAYS: How long do you want, Doctor?

11 THE WITNESS: Three quarters of an hour ought to
12 do it.

13 MR. HAYS: Let's just make it an hour.

14 MR. CROSBY: Is an hour all right for lunch
15 everybody?

16 THE WITNESS: 2:00.

17 MR. CROSBY: Just so we will know, we are
18 going to do what we can to accommodate your schedule
19 concerning the conference that you wish to attend in
20 Washington. There has been an objection filed to
21 these proceedings today going beyond 5:00. I don't
22 know if that objection was filed at your request or not.

23 We have also subpoenaed this deposition to go from
24 day-to-day until concluded. We will accommodate you
25 where we can, but we have information that we need to

1 know and need to discover. If you can think about
2 whether you can go beyond 5:00, and consult Mr. Hays in
3 that matter, we would appreciate it. We would also, if
4 we are able to adjourn tomorrow at 1:00, we would ask
5 that you review your schedule of events to see if you
6 can be here on Friday so that we may go forward if
7 necessary.

8 THE WITNESS: Okay.

9 MR. HAYS: Off the record.

10 (Whereupon, a lunch break was taken.)

11 MR. HAYS: Back on the record now?

12 MR. CROSBY: Yes.

13 MR. HAYS: Did you make a decision about what you
14 wanted to do?

15 MR. CROSBY: Yes. I am going to try to put it
16 in here right now so that we can hopefully move forward.
17 I am going to mark as Exhibit 80 the list of what
18 appears to be articles or references that were produced
19 to me a minute ago by you and the witness pertaining to
20 apparently articles dealing with asbestos exposure. And
21 on the back of the last page of No. 80 are four articles
22 numbered 346, 347, 348 and 349 which are marked as
23 Exhibits 76, 77, 78 and 79 to this deposition.

24 It's also my further understanding that the
25 documents or the articles referred to in Exhibit No. 80,

1 which is the Plaintiff's Exhibit Index, are matters or
2 materials that are available here in Baltimore at
3 an attorney's office, and were anticipated to be used in
4 the other deposition or videotape deposition that was
5 canceled this morning that was to precede this
6 deposition. And that in addition to those exhibits
7 there are documents and things that relate to so-called
8 knowledge, close quote, of particular persons or
9 entities.

10 My understanding is that if requested the articles
11 listed in Exhibit 80 will be provided. I have been
12 advised by some of the parties to these proceedings that
13 have not been involved in these proceedings previously,
14 that they would like copies of these articles that are
15 listed on Exhibit 80. And as you have requested or
16 volunteered, we would like for him to bring tomorrow
17 the materials that this witness contends relates to
18 entities or individual's knowledge, and that he relies
19 upon in forming any opinions with respect to asbestos.

20 Now, have I got that part of it right?

21 MR. HAYS: For clarification purposes, we suggest
22 this: That the documents be taken to an entity for
23 copying, perhaps Kinko's, we're having some copying
24 done today, but they not leave the custody of the
25 attorneys who's exhibits they actually are. They will

1 deliver them to Kinko's, you instruct Kinko's what you
2 want to do with them as far as number of copies are
3 concerned, insofar as delivery to you, and take care of
4 payment for them, and then he will pick up the original
5 documents and return them to Sutter's office.

6 MR. CROSBY: That is fine. Were on the same
7 thing there, we're in agreement there. So if you
8 will have that lawyer take them to Kinko's.

9 MR. HAYS: I will call him during the break and
10 ask him to do that. Maybe get them over there today.
11 What's the address of the Kinko's where you're having
12 your copying done?

13 MR. RHODES: 221 Charles Street.

14 MR. HAYS: Is there someone that can go over
15 there for the defendants and make the arrangements
16 for payment and so forth?

17 MR. RHODES: They are going to be delivering
18 them here, Jim, probably in the next half hour. We
19 can just ask and make arrangements at that time.

20 MR. CROSBY: What about the non-article
21 references that he relies on with respect to state
22 of the knowledge?

23 MR. HAYS: He will just have to put those
24 together tonight and have them here tomorrow, I
25 suppose.

1 THE WITNESS: I will bring my traveling corporate
2 files on which I base opinions relating to the corporate
3 defendants in the asbestos litigation.

4 MR. CROSBY: Will those documents be all of the
5 documents upon which you base those opinions?

6 THE WITNESS: Yes.

7 MR. CROSBY: The entities that are related or
8 involved, or have been involved in the past, in
9 production of asbestos-containing products, we would ask
10 there be one copy of the articles listed on No. 80, and
11 then we will make other copies for any other people at
12 some other time.

13 MR. HAYS: So my understanding is you are asking
14 for one copy. But I am going to ask you to take care
15 of all that. I don't want to get involved in the
16 copying.

17 MR. CROSBY: Is there anybody beside an asbestos
18 producer who would like a copy of the articles on
19 Exhibit 80 which are this witnesses' bibliography of
20 asbestos-related publications? Is that a fair
21 characterization of it?

22 THE WITNESS: Let's just say that it's a
23 sufficient bibliography on which I would base any
24 opinions I would give about what was available to
25 manufacturers of asbestos-containing products who

1 troubled themselves to go to a medical library.

2 MR. CROSBY: So does anybody want copies of the
3 articles? Or do you just want a copy of the
4 bibliography?

5 So just the one copy, and I will see it
6 gets to the appropriate people who want them.

7 MR. HAYS: So there will be one copy made?

8 MR. CROSBY: Yes.

9 MR. HAYS: All right.

10 THE WITNESS: How are we going to handle the
11 traveling corporate files? I would like to be sure
12 that they are going to be handled in a careful manner.

13 MR. CROSBY: It's all right with me, I don't know
14 how long it will take you to put together the quote,
15 "traveling corporate files" close quote, but if you
16 can get together, or you're in such a position that you
17 can get them to somebody today in whom you have
18 confidence, and have them taken to the same copy place
19 and have those copies made so that we will have your
20 file back to you and copies here at the same time to
21 make sure they match up, it's suitable to start that
22 this afternoon, or if the process will have to start in
23 the morning, it will have to start in the morning.

24 THE WITNESS: If we go until 5:00 today, it will
25 have to start in the morning. I have got someone from

1 out of the country coming and spending the evening with
2 me today, and I am not going to have time after about
3 6:00 to do any of this stuff. If we knock off at 5:00
4 I can probably get the files together and bring them in
5 tomorrow. As far as copying the stuff, Mr. Crosby, none
6 of this stuff is going to be new to you. So I don't
7 think it should take you very long to question me about
8 them.

9 MR. CROSBY: As you know, sir, I often have
10 objections as to your areas of expertise, and one of
11 them is not only that you may know what I know, but
12 your ability to know what a piece of paper meant when
13 somebody wrote it that's now dead. So I will have
14 to see the documents to see if there is something I've
15 seen there before, and if upon reading it it prompts a
16 question I haven't thought of before.

17 THE WITNESS: Ready to talk talc?

18 MR. CROSBY: Well, I have been requested that I
19 proceed with respect to the articles that we are waiting
20 to get back from the copy place, which will involve
21 talking, as you say, talking talc. The parties here
22 have asked that we proceed in that manner. That is sort
23 of how we had it outlined, and I don't know how long it
24 will take for them to get back.

25 Does anybody have an estimate as to how long it will

1 take to get them back?

2 MR. RHODES: Approximately 3:30.

3 MR. CROSBY: So that is 40 minutes,
4 approximately. If you want we can take a break now so
5 you can call that lawyer and he can get things over to
6 that copy shop. That is one of the things I think we
7 probably need to get underway.

8 MR. HAYS: I don't have a problem with that.

9 THE WITNESS: We can also mark some more
10 documents, if you like. That is always a great way to
11 spend time. These are in chronological order.

12 MR. CROSBY: Number 81 will be a copy entitled
13 "Effects of Certain Silicate Dust on the Lungs",
14 appearing in the Journal of Industrial of Medicine --
15 it just says the Journal of Industrial Hygiene, I am
16 sorry, volume -- Roman Numeral 15.

17 THE WITNESS Got an author?

18 MR. CROSBY: Dreessen, D-r-e-e-s-e-n. Appears
19 to be an author.

20 Number 82 is from the British Medical Journal,
21 Volume Roman Numeral I, 1948. There's an article
22 inside, there are two. One's entitled "Dangerous Talc".

23 THE WITNESS: That is the only one.

24 MR. CROSBY: Number 83 is British Journal of
25 Industrial Medicine, Volume 12, 1955 entitled "Talcosis

1 of Unusually Rapid Development" by A-l-i-v-i-s-a-t-
2 P-o-n-t-i--k-a-k-i-s, and T-e-r-z-i-s.

3 And then Number 84 is Industrial Hygiene Review,
4 Volume 4, May, 1961, No. 1, Division of Industrial
5 Hygiene Department of Labor, State of New York. Article
6 appears to be entitled "Problem Areas in
7 Pneumoconiosis". Authors appear to be Morris Kleinfeld,
8 K-l-e-i-n-f-e-l-d, and Jack Messite, M-e-s-s-i-t-e.

9 And since Mr. Hays has withdrawn apparently to
10 call the other attorney, I suppose we will defer
11 the questioning until his return. At least that is
12 the practice where I am from.

13 (Whereupon, a short recess was taken.)

14 Q. (By Mr. Crosby) Number 81, let me show this to
15 you, please, and would you tell me, is this one of the articles
16 that you asked the attorney to retrieve?

17 A. Yes, it is.

18 Q. Did he bring the list, by the way, with him?

19 A. Yes, he did.

20 Q. Do you have that with you?

21 A. Yes, I do.

22 Q. Yes, that is the one I noticed this morning.

23 A. It's kind of a mess. Written on the back of a
24 piece of scrap paper.

25 Q. Let me --

1 A. The thing is, I would like to get it back so I can
2 try and retrieve the ones I haven't gotten yet.

3 MR. HAYS: Can we have someone run a copy of
4 that so we could have that today?

5 MR. CROSBY: Sure.

6 MR. HAYS: We have got a copy service here in
7 the motel.

8 MR. CROSBY: We will mark that as Exhibit No. 85.

9 Q. (By Mr. Crosby) Would you tell tell us what No.
10 85 is, please?

11 MR. HAYS: By the way, there is certain material
12 on the back of this that is marked out that is not
13 pertaining to this litigation. Let's take a look and
14 see what that says.

15 THE WITNESS: It says something about Mr. Crosby.

16 Q. (By Mr. Crosby) I hope you spelled it right.

17 A. This is a list of articles that I have not
18 collected as of last evening, or at least it was a list that
19 was intended to be the list of articles I still needed to get
20 from the library. Some of them I in fact did find last
21 evening, and I scratched them out at that time. Others I have
22 since obtained, and I have scratched them out today. And there
23 still looks like about nine or ten articles to go.

24 And I also wanted to eventually review the abstracts
25 published in the Journal of Industrial Hygiene and Bulletin of

1 Hygiene. Although the abstracts would simply be secondary
2 references to primary articles, which I believe I substantially
3 have or will have with the completion of what is on this list.

4 Some of these are here just for color, if you will.
5 Article in 1896 published in a German journal, and it is the
6 first report of Talcosis, cited by many subsequent authors, so
7 I thought it would be interesting to see it, although from the
8 standpoint of notice to subsequent articles starting in the
9 1930s would seem to be quite ample since many of them appear in
10 the English language anyway, and review what Thorel had said.

11 Q. Is Thorel one that you've obtained or one you are
12 still trying to obtain?

13 A. It's the latter category. The ones that are not
14 crossed out are still articles outstanding that I would hope to
15 obtain in the near future.

16 Q. Exhibits 81, 82, 83 and 84 are articles that the
17 attorney obtained for you?

18 A. They are articles that the attorney was able to
19 find in the University of Maryland Medical Library, and that is
20 so indicated on some of the articles. One of these, The
21 Department of Labor Report, I don't recall being on there, but
22 maybe it was.

23 Q. Let me give you 85, and you can tell me if it is
24 on there, please.

25 A. I am at a loss to say how the attorney managed to

1 come up with this one. It's not on my list of the articles
2 that I wanted to obtain. Somehow he found it. I really -- I
3 don't know the story there. It's just one of many articles by
4 Morris Kleinfeld and his co-worker Jacqueline Messite on the
5 New York State talc workers.

6 Q. Can we assume, given your previous glowing reports
7 as to the attributes of the attorney to locate articles, that
8 if he was unable to locate certain of those articles as a
9 result of his search and did not bring them back here that they
10 must not be in the library?

11 A. No. Unfortunately --

12 MR. HAYS: I think we now even have a lowering
13 opinion of the capabilities of lawyers in general for
14 research.

15 THE WITNESS: This fellow managed to bring back
16 a cover page from the British Journal of Industrial
17 Medicine from 1949. I wanted two articles from 1949
18 and 1950. Stapled to the cover page of the 1949 are the
19 1950 articles. The 1949 article is still sitting in the
20 medical library.

21 Q. Assuming that it's there?

22 A. Assuming that the volume attached to that cover
23 page is in the medical library, which would seem to be a safe
24 assumption. He also neglected to find an article by Leroy
25 Gardener in a journal described here as JAMA. He evidently

1 didn't understand that I was referring to the Journal of the
2 American Medical Association, or simply overlooked it looking
3 down this very sloppy list of articles. I am pretty sure that
4 the medical library over there does have JAMA from 1938 on it's
5 shelf and not in storage, but I am not positive of that fact.
6 But I asked him about that, and he didn't really say I looked
7 for it and didn't find it. So much for attorneys as research
8 assistants.

9 Q. So based on your experience with this one, you are
10 willing to categorize us all, I take it?

11 A. No. I am just a little more circumspect in what I
12 think that people whose skill in life, one would think would be
13 the assimilation and compilation of written knowledge, that
14 such skills are not often as finely honed as one might expect.

15 Q. Do we know which law school he went to?

16 MR. HAYS: Somewhere in the south. I don't know.
17 I was just responding to your humor, sir.

18 MR. CROSBY: You will find that those of us from
19 the south are constantly being barraged, and we have
20 become quite calm.

21 MR. HAYS: I won't argue that with you.

22 Q. (By Mr. Crosby) Now then, looking at No. 85, the
23 document which is the list that is crossed through, that list,
24 No. Exhibit 85 is not your initial list, is it?

25 A. No. This is what is left yet to be looked up and

1 possibly applied to the stack of articles that would relate to
2 what was available in terms of published knowledge on talc
3 hazards.

4 Q. And you are going to bring that initial list with
5 you tomorrow along with other materials that we have discussed?

6 A. Along with all the other materials -- Well, I have
7 a specific list, and we can go over at the end of the day what
8 I am agreeing to bring tomorrow.

9 Q. Could I see No. 80, please? It's the index to the
10 articles.

11 MR. HAYS: Have you marked it?

12 MR. CROSBY: I marked it, and I think someone's
13 taken it out to copy it. Do you have your copy?

14 MR. HAYS: I have got a copy, but I don't want
15 it to suffer the same fate.

16 MR. CROSBY: It won't. I'm going to keep it right
17 here.

18 MR. HAYS: I don't want it marked either.

19 MR. CROSBY: It won't be marked.

20 Q. (By Mr. Crosby) What I am trying to find out, do
21 you recall if your list includes the works by Vigliani in Italy
22 during the late '30s and '40s?

23 A. I don't think it does.

24 Q. Do you have those works of Vigliani.

25 A. I don't think I do. I have seen reference to

1 Vigliani publishing reports of two fatal cases of asbestosis in
2 1941. And Vigliani has also written abstracts which appeared
3 in the Bulletin of Hygiene, which I cited in my book, at least
4 once.

5 Q. Have you seen any studies of Vigliani or
6 references to where Vigliani opined that a safe concentration
7 of asbestos could be accomplished at approximately 200 fibers
8 per cc?

9 A. When was this?

10 Q. In the late '30s or the '40s?

11 A. I guess you will have to find the article. The
12 article may have been in Italian for one thing. I have not
13 been able nor have I tried to translate every single article
14 that has been published on the hazards of asbestos, especially
15 if the articles related to factory workers, of which there are
16 so many published articles on asbestosis in factory workers
17 that usually there wasn't any basis in my mind for expecting to
18 find anything particularly new in such articles.

19 I would also question your description of the articles,
20 because they weren't doing fiber counts back in 1939. They
21 were doing particle counts, and so --

22 Q. I stand corrected. Two hundred particles per cc;
23 do you recall reading anything along that line in the Italian
24 literature dealing with threshold limit values for asbestos?

25 A. Well, that wouldn't surprise me, because 170

1 particles per cc is equivalent to five million particles per
2 cubic foot, so Vigliani may have adopted that from Dreessen and
3 just sort of rounded it up a little bit as a fitting figure
4 perhaps that Italian workers are more resistant to asbestosis
5 than American workers.

6 Q. I understand what your surmise and opinion is. My
7 question was: Do you recall reading that in the literature?

8 A. I do not recall reading that.

9 Q. Looking at No. 85, is there any method to that
10 document as to which ones are crossed out as to who obtained
11 them and from what source they were obtained?

12 A. No.

13 Q. So when it's crossed out it could have either been
14 obtained by you by going through your library at your office or
15 home, or -- well, the only other source would be this attorney;
16 is that correct?

17 A. Or Paul Edholm. Because in some cases I had
18 listed an article as something that we needed to get only to
19 find later on that I already had it and then crossed it out.
20 So there are some like that on this list too.

21 Q. And then on the side opposite the exhibit sticker
22 are there also some articles?

23 A. You mean on the reverse side?

24 Q. Yes, sir.

25 A. On the reverse side there is reference to

1 abstracts in the Journal of Industrial Hygiene, and yes, an
2 article by Bauder, the German expert in Berlin on occupational
3 diseases writing in the German Medical Weekly. In 1950 a
4 review article on talc according to other references, is what
5 that is.

6 And also I have made a note that I would like to go
7 through the abstracts of particularly the Journal of Industrial
8 Hygiene and the Bulletin of Hygiene in order to simply, you
9 know, make sure that I have covered what was easily available
10 in this country, and at the same time come up with abstracts in
11 English of articles, the originals which may have been perhaps
12 published in other languages, and then which were abstracted in
13 the United States or Britain and English within a year or two
14 of their publication date. These are sources that were
15 available in this country and therefore relevant.

16 Q. Would you recite to us in the record just the ones
17 that you do not have, based on that?

18 A. The references that I do not have, and I am not
19 sure about the first line, I have got three references by
20 Kleinfeld and his co-workers out of the Archives of
21 Environmental Health. I think when the documents come back
22 from the copying services we may find that one or two of these
23 are actually already in our possession. These are articles
24 published in 1963, 1964 and 1965, if that's sufficient.

25 The next is an article by McLaughlin in the British

1 Journal of Industrial Medicine in 1949. That is not in the
2 collected group so far, although we do have another article by
3 McLaughlin. And McLaughlin in this case is reporting on a case
4 of talcosis or talc pneumoconiosis in a tire manufacturing
5 plant worker according to other references that state this, so
6 that is certainly one we want to get.

7 The next is Gardener in JAMA 1938, I think a general
8 article on pneumoconioses. I don't know what it says on talc.
9 I have forgotten whatever reference there was to it in the
10 other sources.

11 Q. Is this Leroy U. Gardener?

12 A. The one and only Dr. Leroy Gardener.

13 Next is Thorel's article, which we have already
14 discussed, the article on talc pneumoconiosis published in the
15 German Journal in 1896.

16 The next one is the article by Feinberg in Archives of
17 Pathology. And I believe that the reference, I am going to put
18 question mark beside it, because I think the reference is
19 wrong.

20 The highly educated attorney who went to the library
21 went and got me Volume 24, Page 65, 1937, an article that had
22 nothing to do with talc. So apparently Feinberg's article was
23 not cited right or not copied right as far as the reference
24 goes, and it would take a little bit of poking around through
25 the index or whatever of the Archives of Pathology to get the

1 right reference and pull the article.

2 The next is an article by Kipling in a journal called
3 Transaction of the Association of Industrial Medical Officers
4 published in 1960.

5 The next is article by Messite which we may already
6 have, Archives of Industrial Health, 1959.

7 The next article by Williams, this is not in the Medical
8 Journal. It's called "Talc Dust in the Rubber Industries" and
9 it was published in a journal called Safety Engineering in
10 1937. That should be interesting. Williams, I believe was
11 with Liberty Mutual Insurance Company and did such things as
12 petrographic analysis of silted dust on rafters in asbestos
13 plants in the 1930s.

14 The next is Carozzi in a medical weekly published in
15 1941. And I believe I have already talked about what is on the
16 other side of the page.

17 Q. Would you spell the last one?

18 A. Carozzi?

19 Q. Yes.

20 A. C-a-r-o-z-z-i.

21 Q. And that was 19 what?

22 A. 1941.

23 Q. The Williams article was 1937?

24 A. Right.

25 Q. Is that right?

1 A. Yes.

2 Q. And Kipling?

3 A. 1960.

4 Q. Looking at No. 81 could you give me the title of
5 that, please? I am sorry, but my list has wandered out.

6 A. It's called "Effects of Certain Silicate Dust on
7 the Lungs".

8 Q. And that was in the Journal of Industrial Hygiene?

9 A. Right.

10 Q. 1941?

11 A. No, 1933, Dreessen.

12 Q. Does that reference mention any health effects of
13 talc or asbestos or both?

14 A. Yes. Well, it talks about talc.

15 Q. Do you recall seeing any reference to asbestos in
16 that particular article?

17 A. I don't think the word "asbestos" is used. They
18 talk about a tremolite talc. And I have to say, I haven't -- I
19 got this article and saw it for the first time about an hour
20 ago. I haven't really spent that much time looking at it. So
21 maybe somewhere in here the word "asbestos" appears. I don't
22 see it.

23 Q. Would that be true also with respect to Number 82,
24 83 and 84 with respect to how much time you have had to review
25 those?

1 A. I reviewed 82 a little more carefully. I am sure
2 the word -- I am pretty sure the word "asbestos" doesn't appear
3 there, if that is your question.

4 Q. And 82 is that the article by -- Excuse me.
5 Mr. Hays is pointing something out to you?

6 A. Mr. Hays has astutely noted in the first
7 introductory paragraph Dreessen has generally started out about
8 talking about pneumoconiosis. Asbestos is not here, the word
9 "asbestosis" is.

10 Q. Back to No. 81 since that is what we were just
11 talking about.

12 A. Right.

13 Q. Is there any -- do your opinions, any of the
14 opinions that you express in this case regarding talc or
15 asbestos or soapstone or clay, are they based in whole or in
16 part on that article, No. 81?

17 A. Adjacent parts of that article, yes.

18 Q. What parts?

19 A. Well, the part on the article in that the author
20 Dr. Dreessen indicated people who breathe this kind of --
21 breathe talc dust, and this is a tremolite talc in Georgia, I
22 believe it was, that these people do develop a fine diffuse
23 bilateral fibrosis of the lungs which is definitely
24 demonstrable in the X-rays. It does contain a warning that
25 these people do get this material trapped in their lungs and it

1 does produce a fibrosis of the lungs which is demonstrable on
2 X-ray.

3 Q. Does it distinguish between whether the talc or
4 tremolite is fibrous in nature or clay-like?

5 A. I don't recall. You might find something in here
6 like that. It seems to me these earlier articles don't get
7 into that very much. I don't think until the '40s did they
8 start talking about fibers, possibly because of the work of
9 Leroy Gardener that was coming to light at the end of the '30s
10 and '40s where longer fibers of asbestos were attributed to
11 causing the fibrosis that asbestos caused, and people started
12 thinking maybe more in terms of its shape of the particles and
13 not their chemical constituents as the cause of disease.

14 Chemically talc and asbestos are very similar. So I
15 think at this stage they weren't very focused so much on the
16 shape of the particles as being the key factor in the causation
17 of disease.

18 Q. Fiber type or substance type did take an issue,
19 did present itself as an issue in that particular study?

20 A. I don't know what you mean. There is no
21 discussion of fiber type, there is no discussion of fibers in
22 terms of as far as I see, and maybe there is. I mean, as I
23 say, I haven't looked at this article.

24 MR. HAYS: Would you like to take a minute and
25 look at it for your purposes?

1 THE WITNESS: I hate to delay the deposition. I
2 don't think it will serve any purpose for me to sit
3 here for half an hour with each one of these articles
4 and answer questions that aren't central to the issues
5 of whether or not some of these articles constitute
6 form of notice to talc manufacturers that their product
7 might be a problem in terms of breathing it in health
8 terms.

9 Q. (By Mr. Crosby) Sir, I understand that you may
10 have formed opinions as to what may be or may not be central or
11 may be crucial in your own mind, but we here as attorneys are
12 here to develop what opinions you may have since you are
13 proffered as an expert in this case with respect to the
14 development of knowledge regarding asbestos, soapstone, talc
15 and kaolin, and you may have priority in which you wish to
16 present it. However, we have priority in which we wish to seek
17 your opinions and what you base them on.

18 You have stated you base your opinions in this case in
19 whole or in part upon that article. I am attempting to
20 determine from you what part of that opinion of the article
21 that you have in front of you, which is No. 81, and what parts
22 of the opinions you have that you rely on. If none of your
23 opinions are based upon that article in whole or in part, then
24 we can simply move on. But if you state they are, I would like
25 to make inquiry.

1 A. Well, there is a long way and a short way of doing
2 everything. We will do it whatever way you want to do it
3 because you are asking the questions.

4 Q. I like to think there is a right way.

5 A. May I finish my answer?

6 Q. You may answer.

7 A. It's the summary I was reading to you from which
8 appears on Page 78, is the author's summary of their findings.

9 Q. Yes, sir, I notice that it's highlighted. Did you
10 do that highlighting or did the attorney that did the research
11 do the highlighting?

12 A. That is my mark in the margin. Now, I believe
13 your question was whether they talked about -- whether the talc
14 was a fibrous talc, whether there were fibers in the talc. Is
15 that what you wanted to know?

16 Q. I believe my question was: Was not one of the
17 matters addressed in that fiber type?

18 A. I don't know what you mean by that question.

19 Q. Is tremolite a type of asbestos fiber?

20 A. Yes, it can be. But that is not, as far as I can
21 see, discussed in this article.

22 Q. You have me at a disadvantage in that you have
23 seen the articles, albeit briefly, and I have not, except to
24 put a sticker on it. You say you rely on it, therefore I am
25 asking what it says in that respect.

1 MR. HAYS: You commented about the mark on the
2 page. Obviously you paid some attention to it.

3 MR. CROSBY: I can see it from here, Counselor,
4 on the last page, next to the last paragraph.

5 THE WITNESS: As far as I can see, this article
6 doesn't talk about tremolite in the context that you
7 frame your question, namely as a type of asbestos fiber.

8 Q. (By Mr. Crosby) The generic term quote "asbestos"
9 close quote, was not utilized when referring to "asbestiform
10 contaminant", close quote, rather the word "tremolite" was
11 used?

12 A. The word "tremolite" was used.

13 Q. Does that article, in your opinion, provide any
14 information with respect to health aspects of asbestos?

15 A. Well, it points out that the importance --

16 Q. Mr. Hays is pointing.

17 A. He doesn't need to point. It's the only place in
18 the article asbestos is mentioned.

19 MR. HAYS: That is the part we discussed earlier
20 where it says asbestosis in the 1933 article. I think
21 I am referring to the one you are referring to. I am
22 pointing it out that you are pointing it out to him.

23 THE WITNESS: The one place in the article that
24 mentions asbestosis says this is a disease that has
25 recently been recognized. So to that extent, someone

1 could learn about asbestosis by reading this article.

2 Q. Referring to No. 82, it's an article by --

3 A. This is an unsigned editorial in the British
4 Medical Journal called "Dangerous Talc".

5 Q. Have you since learned the author of that unsigned
6 editorial?

7 A. No. It stands as a statement of the editor or
8 editors of the journal, British Medical Journal.

9 Q. Back up. What year was that published?

10 A. 1948.

11 Q. In 1948 are you aware of documents that state that
12 unsigned editorials appearing in that journal are the opinions
13 of the editorial staff of that journal?

14 A. Let me just answer your question this way. There
15 are not explicit statements to that effect, but that is the way
16 journals work. These editorials are not written by carpenters,
17 they are published by professionals of the editors of the
18 journal. They may not be written by the editor of the journal,
19 but if they are unsigned, they stand as a statement of the
20 editor, because the editor bears the responsibility for having
21 published every word of this thing. That is the way it is.

22 Q. Is that true with all journals?

23 A. That is my understanding of unsigned editorials in
24 British Medical Journals.

25 Q. My question to you is: Is that the practice of

1 all journals?

2 A. I don't know what the practice of all journals is,
3 sir.

4 Q. Was it the practice of all scientific and medical
5 journals at that time?

6 A. I think it's safe to assume that it was, but it's
7 also possible that there is some kind of exception of some
8 sort. I can't imagine what the exception would be though. The
9 editor's bear responsibility of what they publish. If they
10 publish it without anyone's name on it as an editorial, it's
11 their statement.

12 Q. What tangible evidence do you have that unsigned
13 editorials appearing in published medical and scientific
14 journals during the 1930s, '40s and '50s and '60s were the
15 official position of the editors?

16 A. I have only the -- the only actual proof in that
17 sense is my discussion with Dr. Hueper who was invited to write
18 editorials for a number of journals. He said if he published
19 an editorial in a journal, as for example in 1955 in the
20 American Journal of Clinical Pathology and the editorial
21 carried his name, that he could make statements which were his
22 own opinions and were as fully strong as his opinions were. If
23 he wrote an editorial for the, say, Journal of American Medical
24 Association, was the example he gave, and it was to be an
25 unsigned editorial, he had to write a slightly more

1 conservative appraisal than he would have written in this own
2 name, because it was written as an editorial for the editor of
3 the journal, and would be presumed to be a statement of the
4 editor.

5 Q. So are you saying then that Dr. Hueper's opinions
6 were altered or manipulated by editors of these journals when
7 they caused him to be more conservative?

8 A. I am only saying Dr. Hueper's expression was a
9 little more tempered in cases where he was writing for the
10 editor of the journal as oppose to writing in his own name. In
11 other words, at a certain point the information becomes a
12 matter of opinion, and the opinions that he would give would be
13 a little less far reaching, not appreciably different, but
14 slightly different.

15 Q. Do I take it that the tempering of one's opinion
16 with respect to medical and scientific matters is an acceptable
17 practice when it comes to presenting unsigned editorials?

18 A. I think that when it comes to matters of style
19 this can be done without compromising one's integrity, and I
20 certainly believe that is what Dr. Hueper was able to do.

21 Q. Where could we talk with Dr. Hueper and see if
22 your recollection of your discussion is correct?

23 A. I am afraid Dr. Hueper died in December of 1978.
24 And like you, I have many questions that I have that I regret I
25 am unable to ask him now.

1 Q. Did you make any notes or have any recordings of
2 your discussions with Dr. Hueper?

3 A. I don't think I retained any such documents.

4 Q. Are you saying -- did you make notes at the time?

5 MR. HAYS: You just asked him a question. He's
6 trying to respond.

7 Q. (By Mr. Crosby) My question was simply: Does he
8 have notes?

9 A. I may have made notes of one of my discussions
10 back at the time I was visiting with him.

11 Q. Do you still have those notes?

12 A. I have no idea.

13 Q. Do you know where you would be able to find them
14 if you retained them?

15 A. No. I would just have to ransack my files.

16 Q. You may have some evidence that could enlighten us
17 in this matter, but you don't know where it is?

18 A. I don't need to go through my files. Dr. Hueper's
19 bibliography is on file at the National Library of Medicine,
20 History of Medicine section, and includes a number of
21 editorials which were unsigned editorials that appeared in the
22 Journal of the American Medical Association.

23 Q. Does it provide us with the drafts or his versions
24 as he would have written it had it not been unsigned?

25 A. I don't think there were any such drafts. I mean

1 he wrote it for certain audiences with a certain understanding,
2 I suppose. I don't know what sort of iteration these things
3 went through. I gather he didn't have any problem with the
4 editor or he wouldn't have invited him to write articles in the
5 first place.

6 Q. Is that gleaned with your conversation with
7 Dr. Hueper? Or is that an assumption you are making?

8 A. It's based on Dr. Hueper's discussion with me
9 where he said up until the Journal of the American Medical
10 Association was changed he was given a number of opportunities
11 to write such articles, and after changing editorship he was no
12 longer called upon to do so.

13 Q. What, if anything, does that indicate to you?

14 A. Dr. Hueper thought it indicated that second editor
15 was substantially less concerned about occupational
16 environmental cancer than the one that he replaced, whose name
17 I am trying to recall. Morris something or another.

18 Anyway, this guy had been the editor of JAMA and retired
19 in 1950 and was replaced by someone else named Austin Smith,
20 and Dr. Smith never contacted Dr. Hueper to write any articles.

21 Q. Do you have any tangible evidence other than your
22 recollection of Dr. Hueper regarding why he was not contacted?

23 A. No.

24 Q. Do you have any information or evidence with
25 respect to why Dr. Hueper was not contacted?

1 A. Only the information that I have, the information
2 from my discussions with Dr. Hueper, which I have related to
3 you.

4 Q. If Dr. Hueper was not contacted, he doesn't know
5 why they didn't contact him either, does he?

6 A. My conversations with Dr. Hueper were not as
7 elaborate as your questions to me, so I can't answer.

8 Q. With respect to No. 82, is this an article by
9 Hendryx?

10 A. 82 is the one we just --

11 Q. That is the unsigned one?

12 A. Yes. What about Hendryx?

13 Q. Do you rely on this article, No. 82, in whole or
14 in part in forming any of your opinions with respect to
15 asbestos, talc, soapstone or clay?

16 A. Yes.

17 Q. Could you tell me, please, what it is in there
18 that you rely upon and what it tells you?

19 A. What this tells you, first it's entitled
20 "Dangerous Talc" published in one of the most prominent medical
21 journals in the English language in the world, and indicates
22 that getting talc in your body can cause adverse affects.

23 Q. Does it discuss what type of talc, if it's babies'
24 powder talc? Contaminated? Uncontaminated? Does it give you
25 anything other than that, or is just the word "talc" used?

1 A. Just the word "talc".

2 Q. Does it's in any way relate to tire workers or
3 rubber workers?

4 A. No, it doesn't discuss tire workers or rubber
5 workers.

6 MR. HAYS: Let me ask you something about that
7 last question. Do you mean dangerous talc or talc does
8 not apply to rubber workers? Or that particular
9 article does not name or name tire workers?

10 THE WITNESS: This particular article.

11 MR. HAYS: I was referring to Counsel's question,
12 because we're certainly not saying talc is not dangerous
13 to tire workers.

14 THE WITNESS: We're saying the article doesn't
15 say anything about tire workers, this particular article
16 doesn't make reference to tire workers.

17 Q. (By Mr. Crosby) From that article do you form any
18 opinions with respect to the talc utilized at the Miami,
19 Oklahoma plant as opposed to the talc referred to in that
20 article and circumstances underwhich it was used?

21 A. I only infer that this is one more statement in a
22 prominent place in the medical literature which very clearly
23 indicates that talc is dangerous to get in your body.

24 Q. Based on that, if I am understanding you right,
25 all talc under all situations is dangerous?

1 A. Well, not necessarily. But the article raises the
2 question that must be presumed, that there isn't anything in
3 here to exculpate any kind of talc from the assertion made.
4 This doesn't say the only type of talc that we consider
5 dangerous is type "A", and if you have type "B", don't worry.
6 It doesn't say that in here. It says talc is dangerous. It
7 says "Dangerous Talc" in the title of the article, and there is
8 no further elaboration about the kind of people talked about in
9 other places or later years about what about talc might be
10 dangerous.

11 Q. Is that one of the shortcomings of that article,
12 in your opinion, the fact it doesn't discuss different types of
13 talc and situations under which it may be a hazard?

14 A. It may be a shortcoming in the sense that the
15 authors don't have complete information about what was
16 dangerous about talc. But it's not a shortcoming in the sense
17 that it constitutes a form of notice to people who are in the
18 talc business.

19 Q. Was baby powder being used about the time that
20 article was published?

21 A. I assume so. I understand cornstarch was used a
22 lot before.

23 Q. What is the difference between French chalk and
24 talc as used at the Miami, Oklahoma plant?

25 A. I don't think I can answer that question. I think

1 that is for Dr. Rohl -- Is it Dr. Rohl on this case, or
2 Dr. Langer?

3 MR. HAYS: Dr. Rohl.

4 THE WITNESS: The mineralogist can answer
5 questions about that. I haven't made any investigation
6 about mineralogy in the Miami plant.

7 Q. (By Mr. Crosby) Would you agree a mineralogist
8 who was able to review an article as it pertained to their
9 particular product would be in a better position to opine what
10 the article said as to the product?

11 A. I think it depends on the specific article and
12 what the article conveys.

13 Q. What is No. 83, please, sir?

14 A. This is a publication of authors in Greece.

15 Q. And what year was that?

16 A. This was 1955 published in the British Journal of
17 Industrial Medicine.

18 Q. Before you go on to it can you tell me if you
19 relied on that article in whole or in part in forming your
20 opinions in this case relating to asbestos?

21 A. Yes, I do.

22 Q. What part of that article do you rely upon in
23 whole or in part with respect to asbestos?

24 A. Well, there is a paragraph on Page 48 which says,
25 "More recent research has shown there is such a clinical entity

1 as talcosis. Our observations confirm more recent work--" they
2 reference Gardener in '39, Policard in '40, Parmeggiani in '48,
3 and some other authors who look like Scandinavians in '49,
4 McLaughlin in '49, Baader in 1950, and the sentence continues
5 "--and encourages us to accept the fact that talc can produce
6 fibrotic pneumoconiosis with functional disturbances."

7 They also have a summary on Page 49, "Our analysis of
8 pulmonary function studies are indicative generally of several
9 degrees of impaired pulmonary function. The results of the
10 analysis of these findings suggest that ventilatory as well
11 alveolar respiratory insufficiency was present. It's possible
12 that the fibrotic changes found in talcosis produce changes in
13 alveolar aeration and perfusion. It's evident that this is an
14 important factor in the production of pulmonary insufficiency."
15 And they go on to have a short summary mentioned they have seen
16 eight cases of talcosis in mill workers developing after and
17 unusually short exposure to talc.

18 Q. Have you completed your answer?

19 A. Yes.

20 Q. Now, I move to strike. My question was, Doctor --

21 MR. HAYS: You asked him what part of that article
22 in whole or in part do you rely upon, and he responded.

23 MR. CROSBY: With respect to asbestos, and I said
24 what part do you rely on with respect to asbestos.

25 MR. HAYS: I didn't hear it.

1 MR. CROSBY: Let's have the court reporter read it
2 back.

3 MR. HAYS: You changed your question, because
4 ordinarily you say asbestos, talc, soapstone, clay or
5 kaolin. Maybe you are reading the paper and
6 not reading your questions.

7 MR. CROSBY: Let me respond to that. I am not
8 reading any paper, it's just that maybe you're just
9 dozing.

10 MR. HAYS: It's because you are pausing so long
11 between your questions, you are wasting the day with
12 your long pauses and putting us all to sleep.

13 MR. CROSBY: This is a scientific area, Counsel,
14 and it takes me a while to frame my questions and listen
15 to responses and determine what next question I should
16 ask, and the manner in which I should ask it, and this
17 witness has told us countless times that he has been
18 deposed, and therefore I assume that he listens to the
19 questions.

20 THE WITNESS: I answered it in that context.
21 There is nothing in here about asbestos.

22 Q. (By Mr. Crosby) The question was about asbestos.

23 A. The word "asbestos", as far as I see, doesn't
24 appear in the article. This is about talcosis.

25 Q. Doctor, turning now to No. 84. Would you tell us

1 what that deals with? And I hope that you understand, Doctor,
2 that I don't have the articles before me, I don't know what
3 you're going to say, and I don't know what they say, so it does
4 take me a while to listen to what you say and frame my next
5 question. So if you'll please tell me what the name of that
6 article is?

7 A. "Problem Areas in Pneumoconiosis".

8 Q. Do you base any of your opinions in this case in
9 whole or in part upon that article?

10 A. Yes, insofar as the article refers to talc.

11 Q. Do you base any of your opinions relating to
12 asbestos on that article?

13 A. I don't think so. It's peripheral at best to the
14 literature on asbestos disease.

15 Q. Does it provide you any information relating to
16 asbestos that you did not have prior to having seen that
17 article?

18 A. I don't think so, but I am familiar with the work
19 of Kleinfeld and his co-workers, and I have reviewed some of
20 these articles before I obtained this one. I mean there may be
21 some reference to asbestos, but basically it's an article on
22 other kinds of pneumoconiosis, and I found the part about talc
23 especially pertinent to this case.

24 Q. I understand what you may have found pertinent,
25 but my question is and my chore here is in part to determine if

1 anything in that article affects any of your opinions in whole
2 or in part relating to asbestos?

3 A. No.

4 Q. All right, sir. Now, with respect to talc,
5 soapstone or clay, what is there in that article in your
6 opinion that imparts knowledge respecting health aspects of any
7 or all of those substances?

8 A. (No response.)

9 Q. Doctor, I do not mean to rush you, but if you need
10 to take a break for you to review that article, I am certainly
11 happy to do that. I understand that it takes a while to read
12 these materials and perhaps comprehend them, so if you need to
13 take a break, feel free to let us know that, and we can break
14 for a few minutes.

15 A. No, I found the part on talc. It starts on Page
16 5, talks about "Talc dust in different mills, and indicates
17 that in the plant where the worker's exposure was to fibrous
18 rather than the granular variety of talc is significantly
19 higher. Incidence of dyspnea, productive cough and chest pain
20 occurred. Similarly the chest X-ray, the X-ray findings of the
21 chest were more abnormal in this group."

22 And I am going to mark that if you don't mind. I am
23 sure you won't.

24 Q. I don't mind it being marked for purposes of the
25 deposition. We will object to any markings or lineations if at

1 time of trial the testimony or evidence is permitted.

2 A. Anyway, so this is a further elaboration on the
3 kinds of information that is coming to the floor on talc as of
4 1961, particularly in the state of New York where they had an
5 asbestiform talc mining area under study.

6 Q. In that article does it discuss whether or not the
7 quote "talc" close quote is quote "contaminated" close quote?
8 And if so, with what?

9 A. Well, they talk about asbestiform or fibrous talc,
10 so I think we can conclude -- well, let's just take another
11 look.

12 Q. Again, Doctor, you can certainly take your time.
13 If it would be better for us to take a break, feel free to do
14 that.

15 A. I really rather use the time as effectively as
16 possible, because there is a limited amount of my time that I
17 can make available for this proceeding. That is why I chose
18 not to ask for breaks anymore than necessary.

19 Q. Counsel complained about the time taken up for
20 asking questions, and I just wanted you to know that we would
21 extend the courtesy to let you know we would let you take the
22 time to answer them.

23 A. I appreciate your courtesy. I don't believe I can
24 add much to what it says. They say there is less serious lung
25 disease in the workers that they have looked at handling

1 fibrous talc than in workers that they have looked at handling
2 a non-fibrous talc.

3 Q. Is it --

4 A. More serious disease in the fibrous talc workers.

5 Q. So does that article discuss whether or not there
6 are contaminants, and if there are, what they are?

7 A. I don't think they go into it. They just refer to
8 it --

9 MR. HAYS: Could I ask you what you mean by
10 contaminants?

11 MR. CROSBY: Let me ask the Doctor since he used
12 that word earlier.

13 Q. (By Mr. Crosby) Doctor what do you mean when you
14 refer to talc or quote "talc" close quote, that is
15 contaminated?

16 A. Well, talcs have various types of mixtures. Pure
17 talc dust, the mineral called talc, is a very unusual thing.
18 The industrial grade talcs commonly contain such things as
19 silica and tremolite. The article by Schultz and Williams in
20 1942 is indicative of the range of minerals that are found in
21 industrial talcs, whether you want to call them contaminants or
22 not, they are there.

23 Q. I don't mind. I am just trying to find out if
24 that word is a word you are comfortable with. If that is what
25 it indicates to you, I will certainly use that word.

1 A. I am not totally comfortable with it, but it's a
2 word you can use. They are not contaminants in the sense that
3 they were inadvertently added. They were there to begin with.
4 They were part of the mineral that was being dug out of the
5 ground by some company or another.

6 Q. So would you prefer using the term pure talc
7 versus non pure talc?

8 A. I suppose. I suppose that might be a little bit
9 more precise.

10 Q. And then is asbestiform talc in your opinion
11 opinion the same thing as a talc that contains asbestos as a
12 contaminant that occurs naturally?

13 A. That is my understanding, yes.

14 Q. All right, sir.

15 A. That is what I think it is, although the real
16 experts on that would be the mineralogists.

17 Q. If your understanding as to what an asbestiform
18 talc is is incorrect, would it alter your opinions with respect
19 to talc in any way?

20 A. Depends how it was incorrect and in what manner.

21 Q. Have you done any type of research to determine
22 what is meant by asbestiform talc?

23 A. I have read what appears in the literature on
24 talcosis. I hasn't gone to the extent of reading a great deal
25 of literature which is of a mineralogic and geologic nature,

1 although such literature is available. What is not available
2 is time to go and do every single thing that might answer every
3 single question that I could conceivably be asked.

4 Q. With respect to Nos. 82, 83 and 84, is there any
5 information relating to the exposure levels of the workers
6 who -- and the opinion of the authors, who have contracted what
7 you relate to me as talc associated conditions or diseases?

8 A. I don't see any dust counts. Here there is. 83.

9 Q. Would you help me with what the title is?

10 A. The article by the Greek authors in the British
11 Journal of Industrial Medicine in 1955 does have air sampling
12 data, units of talc particles per liter of air.

13 82 doesn't have quantitative information on exposure.
14 84, I don't believe contains such information.

15 Q. Do any of those articles deal specifically with
16 individual's exposed to pure or non-pure talc in a tire worker
17 or rubber worker situation?

18 A. No, none of these three, 83, or 82, 83 and 84 do
19 not.

20 Q. What about 81? I have got it. I am sorry. It
21 was in front of me.

22 A. 81 doesn't either. These are mine and mill
23 workers.

24 Q. What were the exposure levels in No. 83?

25 A. They were in unusual units that would require some

1 conversion to get them into million particles per cubic foot.
2 They are given as talc particles per one thousand milliliters
3 of air, per liter of air. The information is on Table 3.
4 There are a lot of numbers here.

5 Q. Were these measurements of talc -- I know it says
6 talc particles, but can you tell from reading this article if
7 it was actually talc particles, or was it total particles and
8 all attributed to being talc?

9 A. I don't think I can tell from reading the article
10 which they mean.

11 Q. From looking at Table 3, are these ranges, is that
12 how you interpret it?

13 A. Let me see it. I read this as a separate
14 measurement, not ranges.

15 Q. Two separate measurements?

16 A. Well, some cases two, some cases three, some cases
17 four. If you will look at it more closely, I think you will
18 agree.

19 Q. And to convert this to talc particles per cc, one
20 would just divide by a thousand?

21 A. Well, yes. No, hold it. Right. And then divide
22 by another 170 particles per cc is five million particles per
23 cubic foot.

24 MR. HAYS: Counsel, am I to assume you're assuming
25 lead for the talc people as well as abestos at this

1 point?

2 MR. CROSBY: No. I am just asking questions
3 about these particular articles. I am not assuming
4 lead for anybody.

5 MR. HAYS: We're producing the asbestos articles
6 tomorrow.

7 MR. CROSBY: I know, but I don't want to go
8 back through the same articles twice, I didn't think you
9 did, so when I cover an article, I try to cover it
10 fairly completely so that we don't have to do it twice.
11 If I go through it now and ask him the title and
12 everything about it, and ask about asbestos and he says
13 nothing, go back all through it again tomorrow on talc,
14 I am certainly willing to do it that way. I don't know.
15 I am just trying to do it --

16 MR. HAYS: We might be able to shorten this.
17 Let's take a break for a second, and I'll ask him about
18 these articles, we might be able to give you an answer
19 and you just won't have to ask any more questions from
20 your standpoint.

21 MR. CROSBY: All right, sir.

22 (Whereupon, a short recess was taken.)

23 MR. HAYS: Back on the record. We took a break
24 to see if we could expedite the deposition. And I
25 have spoken with Dr. Castleman. He has agreed that

1 we will not rely-- his opinion will not be based upon
2 any of the articles that are identified as the quote,
3 unquote "talc articles" which comprise Exhibits 11
4 through 75, and four additional articles that were
5 provided after lunch which were 81 through --

6 MR. CROSBY: 84.

7 MR. HAYS: Where is the other article? There it
8 is.

9 THE WITNESS: Let me complete your representation.

10 No opinions that I have on the hazards of asbestos
11 will be based on any of the so-called talc articles
12 except insofar as such articles also appear on the list
13 of asbestos articles numbered 1 through about 349 on a
14 separate list, which has been marked as an exhibit.
15 I think that will take care of it.

16 Q. (By Mr. Crosby) All right, sir. Do you have a
17 separate list of all of the so-called talc articles that we can
18 look at so we can compare the talc list with the asbestos list
19 and see where there is a duplication?

20 A. No.

21 Q. Are you able to go through No. 80, do you think,
22 and let us know?

23 A. I will do it during the deposition tomorrow with
24 when the documents get back here, or I will do it during the
25 deposition if the documents get back here between now and 5:00,

1 I am going home at 5:00, or you can do it yourself.

2 MR. HAYS: That's a good idea.

3 THE WITNESS: You will have plenty of time
4 eventually before trial. There are only about three
5 or four I think.

6 Q. (By Mr. Crosby) I understand we may have plenty
7 of time before trial. But one of the purposes for this notice
8 and subpoena and gathering is to find out what your opinions
9 are and what you base it on.

10 MR. HAYS: Well, Counselor, since you are going
11 through all those articles tomorrow, when you happen
12 upon those articles, then it will be --

13 MR. CROSBY: I am just trying to find out if there
14 is a shortcut, Mr Hays. If there's not, there's
15 not.

16 MR. HAYS: You are going to go through all those
17 articles tomorrow anyway, so what difference does it
18 make?

19 MR. CROSBY: Like I say, I don't mind doing it
20 the right way.

21 MR. HAYS: Me neither.

22 Q. (By Mr. Crosby) Just so I understand it, your
23 opinions relating to health aspects of asbestos are not based
24 upon the quote "talc articles" which are Exhibits No. 11
25 through 75 and 81 through 84; is that correct?

1 A. Correct, except insofar as such articles may also
2 appear on the list of 349 or so, which we have also marked as
3 exhibits somewhere.

4 Q. Which is exhibit No. 80.

5 MR. HAYS: In order that we be perfectly clear,
6 we're not excluding anything that has to do with talc
7 with asbestos fibers or asbestiform talc. That is we're
8 talking about asbestos as distinct from talc with
9 asbestos in it. Are we tracking on that?

10 MR. CROSBY: Let me make sure. I think we are.
11 What you're telling me is that this witness --

12 MR. HAYS: May have opinions --

13 MR. CROSBY: Will not relate to products that
14 were manufactured, produced and sold as being products
15 that were promulgated as asbestos-containing products.
16 His opinions with that respect will not rely on 11
17 through 75 and to 84 except duplicates on the list that
18 may contain asbestos in one form or another?

19 MR. HAYS: Correct.

20 MR. CROSBY: If we can agree to do it, I will
21 yield the witness to the talc people at this time with
22 the understanding that I can resume with asbestos
23 matters at a later point, either when we begin tomorrow
24 or the talc general examination is over. If I yield the
25 witness now, I do not want to be precluded from asking

1 other questions that I may have about asbestos.

2 MR. HAYS: We will not preclude any further
3 questions by yourself, so long as they are not
4 repetitive. And we do ask you to consider our offer
5 made off the record, which we will make on the record,
6 to shorten the deposition by incorporating by reference
7 the depositions that have to do with background and
8 other matters as we agreed to in the Cohen deposition.

9 MR. CROSBY: And like I said, I have discussed it
10 with several people here, more people have shown up
11 since then, we will try to see if we can do something.
12 If we can, we can.

13 Q. (By Mr. Crosby) Let me ask the witness, are
14 you -- have you checked about Friday?

15 A. No.

16 Q. Are you aware of any commitments that you have for
17 Friday other than to be here?

18 A. I am aware of the fact that work is piling up on
19 my desk.

20 Q. We all are suffering from that.

21 A. Yes. Well, I suffer from it differently than you
22 do.

23 Q. Maybe not.

24 A. And I have a limited amount of my time, my life's
25 time that I am willing to make available to be questioned about

1 anything in deposition this week, because I do have other
2 things I have to work on, such as the EPA's rule coming out
3 this week and whatever repercussions are going to result from
4 that, and other kinds of activities that I'm involved in that
5 don't have anything to do with litigation.

6 Q. Let me ask you something about the EPA thing
7 tomorrow. As I understand it, you are going up there to hear
8 what the announcement is, you are not to participate in any
9 official capacity with respect to that announcement, are you?

10 A. I intend to participate.

11 Q. In an official capacity?

12 A. I will be representing the Natural Resources
13 Defense Counsel. We have taken a number of positions in papers
14 we have filed with the EPA in the course of this rule making.
15 Participated at the hearings and attended the hearings that
16 were held on the proposed rule for a week, and I intend to
17 participate in what goes on tomorrow as well.

18 Q. I understand what your intentions are. I am just
19 trying to get an understanding as to what your role is in the
20 matter tomorrow since it may deal with your qualifications.
21 And what I am trying to find out is: Is your presence there
22 necessary for the announcement to be made?

23 A. My presence isn't necessary for the administration
24 to tell the media what its view of its regulations are.

25 Q. All right. So your --

1 A. But for a more balanced picture to be gotten
2 across, and for certain questions to probably be asked of the
3 government people, which the government people might not have
4 thought to raise on their own, which might raise some critical
5 aspects about their new regulations, it probably is essential
6 that I be there, and I intend to be.

7 Q. Is it essential that you be there as an individual
8 for this group? Or is it essential that you be there as
9 someone who's a representative of the government?

10 A. As a representative of the Natural Resources
11 Defense Counsel, the leading environmental group in the United
12 States that deals with toxic substances and confronts the
13 government time after time over such things as a need to
14 regulate asbestos.

15 Q. But this -- What is it, National Resources
16 Defense Counsel?

17 A. Natural Resources Defense Counsel.

18 Q. That is not a government agency or entity, is it?

19 A. That is right, it's not.

20 Q. And you do not have any official governmental
21 capacity with respect to the EPA announcement at this time?

22 A. That's correct.

23 Q. Is the National Resources defense counsel what
24 some folks might call a lobby group?

25 A. I suppose it's been called that by people in the

1 industry that were criticized by the NRDC. But the Natural
2 Resources Defense Counsel is a very highly regarded group in
3 the area of occupational or mainly environmental health.

4 Q. I guess it's highly regarded by some and maybe not
5 highly regarded by others?

6 A. Well, statements that they make and studies that
7 they do are reported by the leading stuffed-shirt east coast
8 newspapers as a fact, to which to my mind constitutes a very
9 high degree of recognition. These people who have been in
10 business a long time, Jacqueline Warren, with whom I worked on
11 this rule, has written more environmental legislation that
12 anybody probably now working for the Environmental Protection
13 Agency.

14 David Hawkins with the Natural Resources Defense Counsel
15 under 10 years back was the assistant administrator to the
16 director of the EPA in charge of all air pollution control
17 programs. These are the kind of people who work at the NRDC.
18 And in the field of environmental protection, the Natural
19 Resources Defense Counsel and the Environmental Defense fund
20 have an extremely good reputation for doing solid, competent
21 work, and not for going over the deep end about things that
22 aren't real problems.

23 Q. I assume that there is some disagreement with
24 respect to your assessment of the organization for which you
25 consult?

1 A. I am sure the producers of Alar would disagree
2 with that.

3 Q. Is that the apple thing?

4 A. That is the pesticide that the Environmental
5 Protection Agency said it should ban, but it wouldn't be able
6 to ban until 1991, so we should be keeping apples in our
7 refrigerators until such time as they get together on banning
8 Alar.

9 Q. Were you all instrumental in getting all the
10 grapes and everything in Chili banned?

11 A. That had nothing to do with the Natural Resources
12 Defense Counsel or any environmental group. That was action
13 taken by the Food and Drug Administration of the United States
14 for reasons best known by the FDA.

15 Q. Did you support that action?

16 A. I didn't really know what to make of it. They
17 analyzed one grape and found some kind of a trace of cyanide in
18 it. I don't consider that in a class with the deliberate
19 application of Alar to half the red apples grown in the United
20 states consumed by adults and children.

21 Q. Let's see if I can find out who some of the quote
22 "stuffed-shirt", close quote, east coast newspapers are. Is
23 the New York Times one of those?

24 A. That was the principal one to which I referred.

25 Q. Do you find it to be a reputable and highly

1 regarded newspaper?

2 A. Yes, I do.

3 Q. And do you find it to have enjoyed that reputation
4 for over a century?

5 A. I don't know how long it's had that reputation.
6 But I read the newspapers a lot, and I consider myself very
7 astute in appraising the quality of journalism of newspapers.
8 I've dealt with the media for 20 years in the field of
9 occupational and environmental health, and I've seen how they
10 report issues with which I am intimately familiar. And based
11 on that, I would characterize the New York Times as a very
12 competent newspaper, but also kind of a stuffy newspaper in the
13 way that it reports the news.

14 Q. In your view of historical matters relating to
15 substances, did you note that the New York Times enjoyed a
16 reputation of attempting to correctly and accurately report
17 scientific matters?

18 A. Well, I think that the New York Times does that as
19 well as any city newspaper in the country.

20 Q. Is the Washington Post another stuffed-shirt
21 newspaper?

22 A. They are a little less stuffy than the New York
23 Times.

24 Q. But is it still one of them? Are we talking
25 degrees here?

1 A. We're talking degrees here, yes.

2 Q. How about the --

3 A. We have got about --

4 Q. How about the Wall Street Journal?

5 A. Well, the Wall Street Journal does very solid
6 reporting. It's editorials are another story. But the
7 reporting of the Wall Street Journal is remarkably good.

8 Q. Do you find that it has enjoyed that reputation
9 for about a century or so?

10 A. I don't really know how long. I mean, I am just
11 talking about my own experience as someone who, you know, for
12 example was very much involved in the aftermath of the Bophal
13 disaster and reading the New York Times and Wall Street
14 Journal, Washington Post every day for months on end about the
15 way they were covering that development, as well as all the
16 trade magazines in the chemical industry and other publications
17 from abroad.

18 MR. HAYS: Do you think this is relevant?

19 It's 4:30 in the afternoon, and you're going through
20 a list of newspapers.

21 MR. CROSBY: Yes, sir, and I will tie it up for
22 you at trial.

23 Q. (By Mr. Crosby) Now, let me ask you this: Did
24 you go to Bophal and do an investigation of your own there?

25 A. I didn't go to India. I had become acquainted

1 with very many people who were involved in the situation both
2 in India and in the United States, one of whom I expect to meet
3 tonight.

4 MR. CROSBY: With the understanding that I will
5 be able to complete my questioning of this witness after
6 passing the witness temporarily for one of the talc
7 attorneys to make inquiry, I pass the witness and
8 reserve my further questioning relating to asbestos in
9 general, and with respect to Owens-Corning Fiberglass in
10 particular. And I think counsel is aware that I have a
11 series of questions that will be perhaps quite lengthy,
12 and I do not want to in any way indicate that I am in
13 any way waiving my right to pursue those questions.

14 We got an agreement on that?

15 MR. HAYS: I haven't heard the questions yet.

16 MR. CROSBY: I understand. You may not like some
17 of the questions as we go along, and you may have some
18 reservations about some of the questions, or objections,
19 but if for instance --

20 MR. HAYS: You are not waiving your right to ask
21 them, I understand that. You can about newspapers
22 tomorrow if you want to, and the funny papers in
23 particular.

24 MR. CROSBY: No. Those are the only ones I needed
25 to ask about at this time, unless I see some of them in

1 the materials that he has tomorrow that are provided
2 that formed the basis of some of his opinions. So I
3 temporarily yield --

4 MR. HAYS: It's 4:30, 4:30 is my time. Let's go
5 off the record for just a second.

6 (Whereupon, a discussion was held off the record.)

7 CROSS EXAMINATION.

8 BY MR. HINKLE:

9 Q. Mr. Castleman, will there be other representatives
10 of this Natural Resource Defense Group at the hearing tomorrow?

11 A. I don't believe so.

12 Q. You are the only one that will be there?

13 A. Right.

14 Q. Are there others in the Baltimore area, other
15 members?

16 A. They may be members, but they are not people who
17 work as members of the staff or consultants. This is a group
18 who's probably got 50,000 members around the country that send
19 them annual dues, they're members.

20 Q. Are you the only one that has ever attended any
21 hearings like this on behalf of that organization?

22 A. I think so. The attorney involved in the New York
23 office may have come to one of the hearings just to make --
24 yes, she did in fact come to the presentation where we
25 presented NRDC's statement. But aside from that, I have been

1 the only person. I have been the point man for NRDC dealing
2 with EPA on this ruling.

3 Q. Do you hold an office with the NRDC?

4 A. No.

5 Q. Are you paid a salary by the NRDC?

6 A. No.

7 Q. This is a voluntary service on your part?

8 A. Well, actually I made \$1500 out of my work in this
9 connection since 1986, so it comes close to being volunteer
10 work, but I got paid something for it.

11 Q. Are there other organizations that have interests
12 similar to the NRDC's that will be there?

13 A. There are no organizations that will be
14 represented in the way that I can represent NRDC unless I am
15 there, because I know more than anybody else in the
16 environmental movement about the hazards of asbestos.

17 Q. As I understand it --

18 MR. CROSBY: I move to strike the voluntary
19 assessment of the witnesses' credentials and knowledge.

20 MR. PIERCE: I disagree with him.

21 Q. (By Mr. Hinkle) You were advised some time ago
22 that we were going to need at least two days for this
23 deposition, were you not?

24 A. I was advised that you wanted two days.

25 Q. Well, you were told a minimum of two days, were

1 you not?

2 A. I believe I was told that you wanted two days. I
3 blocked out two days, and I was of course aware of the fact
4 that at the end of the two days in all likelihood at least one
5 of the dozens of attorneys would object to the fact that they
6 hadn't had more time, because this has happened many times in
7 the past.

8 But be that as it may, I have put aside as much time as
9 I could. The call from the EPA came sometime last week, and
10 there is nothing I can do to get the government to change its
11 schedule for you all or for me.

12 Q. When you got the call from the EPA did you notify
13 Mr. Hays or anyone with John Norman's law office about that?

14 A. Not immediately. The call was dropped on my
15 answering machine. Later on I did eventually get the call. I
16 called Jacqui Warren at NRDC in New York and discussed
17 briefly --

18 Q. I don't need to know about your discussions with
19 her. I am trying to get some timing down here. When was it
20 that you were notified that you were going to have a problem on
21 the 6th of July with regard to this deposition?

22 A. Well, I didn't think I would necessarily have a
23 problem. I was hoping we could get this all over with in time
24 for me to scoot off tomorrow afternoon and go down to
25 Washington. I wasn't assuming we would have a problem.

1 I felt that the talc literature could be expeditiously
2 dealt with in the time allotted. But in any event, the
3 information from EPA came to me late last week, something like
4 Friday, Thursday or Friday.

5 Q. That is when you knew about it then?

6 A. That is when I knew that the EPA was holding this
7 proceeding. It didn't occur to me right away --

8 Q. All I want to know is when.

9 A. --that there was necessarily a conflict. It took
10 me a little while longer to realize that that might cause some
11 problems in connection with this deposition.

12 Q. You knew Thursday or Friday of last week that this
13 hearing was going to take place Thursday of this week, you had
14 a weeks notice?

15 A. Right. Maybe it was Friday.

16 Q. When did you notify Mr. Hays or someone at John
17 Norman's office about that?

18 A. I don't recall.

19 THE WITNESS: Did I talk to you about it this
20 weekend or after you got up here?

21 MR. HAYS: Last night.

22 Q. (By Mr. Hinkle) You notified representatives of
23 the plaintiff's firms that hired you about this conflict last
24 night?

25 MR. HAYS: Counsel, in fairness, he didn't say

1 he was aware that it was going to be a conflict. He
2 thought it might be expedited. And to that end we have
3 agreed to incorporate depositions, we have supplied
4 lists, we have worked to get copies for you, and we have
5 answered a rather banal list of questions today. In
6 fact, very little has been accomplished, and we asked
7 for the talc people to go first to cover the talc
8 articles. That was not done even though the talc people
9 were here, although you were not here, and some others
10 did not arrive until late based upon the fact that we
11 were going to have a video deposition, I understand
12 that. But things didn't transpire the way we had
13 planned.

14 MR. HINKLE: Mr. Hays, we were doing all that
15 we could to accommodate you.

16 MR. HAYS: I understand that. And I am in
17 agreement with you.

18 MR. HINKLE: Please. I have been sitting back
19 there at the end of the table listening to all three
20 people talking at one time and watching this poor court
21 reporter trying to keep up with everybody, so why don't
22 we try as hard as we can to not intrude on one another
23 and make sure that there is only one person talking at a
24 time.

25 MR. HAYS: That's a very reasonable request, and

1 I will do my best to do that.

2 MR. HINKLE: I appreciate that.

3 Q. (By Mr. Hinkle) Do I understand that having
4 learned Thursday or Friday of last week that you were going to
5 want to shut the deposition down at 1:00 tomorrow, you didn't
6 notify anybody until last night. Is that true?

7 A. Well, it didn't happen quite that way. I got a
8 notice from the EPA on my telephone line. I eventually called
9 up Jacqui Warren to ask if she intended to go down to represent
10 NRDC. At some point it occurred to me that this deposition
11 might still be going on Thursday afternoon even though it
12 started Wednesday morning, and that probably occurred to me
13 sometime over the weekend. I didn't make the connection right
14 away. And then the next time I talked to Mr. Hays I told him
15 about it.

16 Q. That was last night?

17 A. That was last night. I hadn't been in touch with
18 Mr. Hays over the July 4th weekend.

19 Q. That was my question. You didn't tell anybody
20 about what you saw as a conflict until last night?

21 A. I didn't even know how to get in touch with
22 Mr. Hays.

23 Q. Were you served with a subpoena?

24 A. Yes, I think Friday I got a subpoena from you all.

25 Q. Do you understand what a subpoena is?

1 A. I understand that a subpoena is something that
2 gets me down at all hours of the day and night to answer the
3 front door, and very often is accompanied by an extremely
4 burdensome request.

5 Q. Do you understand that a subpoena, a response to a
6 subpoena is not optional?

7 A. I understand that I do my very best to respond to
8 subpoenas and in a way that serves the judicial system, in this
9 case by making every effort I could to provide the new
10 information related to the health hazards of talc which I have
11 developed, which I thought was going to be the subject of this
12 deposition in the first place.

13 Q. Has any attorney told you that you are free to
14 modify a subpoena whenever it suits your schedule?

15 A. No, but I have seen countless examples in my own
16 experience where I have been told to disregard subpoenas or
17 certain things that were requested in subpoenas by plaintiff's
18 attorneys, and that the plaintiff's attorneys were subsequently
19 not admonished by the courts for having given me those kinds of
20 instructions, namely owing to the time that the subpoenas
21 arrived, and the extraordinarily burdensomeness of the requests
22 that the subpoenas contained, as well as the intrusiveness of the
23 subpoena sometimes. Not necessarily referring to yours.

24 Q. Did you consult with an attorney as to whether or
25 not you are free to rectify a scheduling problem to ignore or

1 modify the subpoena in this case?

2 MR. HAYS: Counsel, excuse me. Are you saying
3 that he's sought to modified the subpoena?

4 MR. HINKLE: The subpoena does not say anything
5 about the deposition will be continued from hour to hour
6 at the discretion of the witness.

7 MR. HAYS: The subpoena, as I recall, simply
8 mentions a starting time, does not mention an ending
9 time, and is very vague and uncertain as far as the
10 first paragraph in there when it talks about a starting
11 time at 10:00, July 5th, as opposed to other subpoenas
12 where you mentioned a period from 9:00 or 10:00 to 5:00
13 or 6:00. It doesn't have that sort of specific
14 designation for some reason. Doesn't even mention the
15 two days that you refer to.

16 Q. (By Mr. Hinkle) Do you understand what the rules
17 provide with regard to subpoenas, Mr. Castleman?

18 A. I am not an attorney, and I will not represent
19 myself as understanding the kind of things that you all are so
20 well schooled in, no. I do my best to comply with your
21 subpoenas. Understand that I have received a lot of subpoenas,
22 and I have done my best to comply with them all.

23 Q. Do you understand if you had notified us about
24 this problem that you are having that probably a lot of the
25 people that are going to be sitting around here waiting until

1 you finish your hearing wouldn't be here, or would have made
2 arrangements to do other things?

3 A. Well, I think if those people would have known
4 what was going to go on here today, they probably wouldn't have
5 come today either. But there wasn't any way of my anticipating
6 the fact that there would be so much redundant and superlative
7 questioning going on. I can't be responsible for everybody's
8 problem in this room. It's all I can do to cope with the
9 problems in my own life, and I'm doing the best that I can.

10 Q. You could have called Mr. Hays though, and
11 informed him about this problem?

12 A. I don't even know his home phone number. I was
13 trying to take a little vacation this weekend.

14 Q. We've been talking a while today about talc. So
15 we will have a working definition, and so we'll all be in
16 agreement with regard to what we're talking about, what exactly
17 is talc?

18 A. Talc is used in the industry as a mixture of
19 minerals of various kinds, depending on where it is mined.

20 Q. Is that as good a definition as you can give us?

21 A. I think it's a correct definition as far as it
22 goes.

23 Q. Well, we can say a lot of things that are correct,
24 and it may not be the best we can do. What I am getting at
25 here is I would like you to give me the best definition for

1 talc, the substance that we're going to be discussing, as you
2 can give us.

3 A. I have given you that.

4 Q. A mixture of minerals of various kinds, depending
5 upon where it's mined; right?

6 A. That is right. Depending on where it comes from,
7 different talc deposits have different constituents.

8 Q. So any concern that markets or distributes a
9 mixture of minerals of various kinds, depending on where it
10 comes from, should be on notice of the matters that you have
11 discerned in these articles that you have told us about?

12 A. If that material was marketed as talc or
13 industrial talc, then I think they should be on notice about
14 literature relating to the hazards of talcs used in industry,
15 not necessarily each and every article of course, but in a
16 general sense manufacturers and sellers of products should be
17 more than dimly aware of the health hazards associated with
18 such problems.

19 Q. Have you ever heard of the term Mil-Slip?

20 A. No.

21 Q. Do you know what Mil-Slip is?

22 A. No.

23 Q. Well, should the manufacturer of Mil-Slip, since
24 Mil-Slip is a mixture of minerals of various kinds, depending
25 upon where it comes from, should the manufacturers and

1 distributors of Mil-Slip be on notice of anything with regard
2 to any of the articles that you have discussed here concerning
3 talc?

4 A. Let me just say that I am unfamiliar with the
5 technical jargon which includes the word Mil-Slip. Now, if
6 Mil-Slip is a synonym used in the trade for industrial grade
7 talc, then the answer to your question would be yes. But I am
8 not hear to -- I think it's very clear that if you sell
9 something you call talc and there's a body of medical
10 literature on something called talc, that that is relevant to
11 your business. And if you also call your product Mil-Slip, or
12 if the people in some factory call it Mil-Slip, that seems to
13 me beside the point. I don't know what Mil-Slip is.

14 Q. By the way, is Jacqui Warren going to be present
15 at this hearing tomorrow?

16 A. No.

17 Q. Are you telling us that there is some consensus in
18 the medical community with regard to whether or not inhalation
19 of talc, as you have defined it, poses a health hazard to
20 people who breathe it?

21 A. I am saying that there is a body of scientific
22 literature that goes back to the turn of the century that says
23 that people who breathe talc can get sick from it. And that
24 that is what is relevant to the historic sale of that product
25 by the companies that marketed stuff they call talc.

1 Q. My question to you, sir, was: Is there a
2 consensus in the medical field with regard to the dangers posed
3 by inhalation of talc?

4 A. I know that there is certainly controversy over
5 what it is in different types of talcs that is particularly
6 pernicious. And different people will, I am sure say,
7 different scientists today, will I am sure give somewhat
8 different, at least somewhat different opinions on the weight
9 that might be given to this or that constituent of these
10 industrial products as to which ones, which constituents
11 constitute what percent of the health hazard or which
12 constituents constitute the most serious or less serious health
13 hazard. Controversy never ends, especially where money is
14 involved. But even if there wasn't, I think there would be
15 controversy in this case because this is a complex problem.

16 Q. All I wanted to know from you, sir, is as you sit
17 here today are you prepared to testify that there is some
18 consensus in the medical community concerning the dangers posed
19 by the inhalation of talc?

20 A. I think there is a consensus in the medical
21 community that inhaling industrial grade talcs has to be
22 presumed to be hazardous to your lungs. I think no matter what
23 the constituents of it are, even if it is so-called pure talc,
24 sufficient quantities, sufficient exposures to the so-called
25 pure talc will cause lung damage. I read that in the medical

1 literature. I think that is a currently held view, a majority
2 view, although I say that with some hesitancy because I am not
3 here as an expert on the current state of medical knowledge
4 about talc as a health hazard. I am here basically as someone
5 who has looked at the historical development of scientific and
6 medical knowledge as someone who might have been in the talc
7 selling business might have looked at the open scientific
8 literature at any time in the 1930s, '40s, '50s, and '60s to
9 see what was reported about this product, not necessarily what
10 the current state of medical knowledge and controversies on it
11 are.

12 Q. You mentioned the term industrial grade talc. How
13 does that differ from the definition of talc that you gave us
14 earlier?

15 A. It doesn't. But mineralogists do have something
16 that they refer to as pure talc, and this is a particular
17 mineral, which as far as I have been able to determine is
18 rather unusual to be found in a really pure state. But they do
19 have a mineral that they call talc, and the mineralogists have
20 a distinct meaning when they use the term.

21 Q. So you are saying that the definition you gave us
22 earlier, that is a mixture of minerals of various kind
23 depending upon where it comes from, will apply equally to pure
24 talc and industrial grade talc, that definition will apply to
25 either?

1 A. I am not sure I understand your question. No, I
2 think that that is wrong.

3 Q. All right.

4 A. As I understand what we have been talking about,
5 the so-called pure talc of the mineralogists is a pure
6 substance, it is a particular mineral. It is a pure substance,
7 as I understand it.

8 Q. Can you give me your understanding of the working
9 definition of the pure substance talc? When you read it in
10 these articles what is it that we're talking about, what is it
11 that we will be discussing?

12 A. I would have to fan through the articles to
13 actually look up the molecular formula that they give, but
14 there is something they refer to as pure talc. And I have to
15 admit I am not sure I could tell you what pure asbestos is, for
16 that matter, without looking it up in somebody's, you know,
17 description of the mineral composition.

18 Q. So as I understand it, as you sit here today you
19 are unable to give us a working definition of the term pure
20 talc. Is that true?

21 A. No, it's just that we have got six minutes left
22 this afternoon. If you want to ask me the question tomorrow
23 morning, I will look it up in one of these articles and I will
24 tell you. All I am saying is that mineralogists have something
25 they call pure talc, this for practical purposes is not the

1 only thing present used in talcs that have been used in the
2 industry. The talcs that have been used in the industry are
3 mixtures of minerals, and various things have been written over
4 time about the types of health effects attributed to working
5 and breathing these types of materials, and that is what is in
6 medical and scientific literature that I think is relevant to
7 what we're talking about here today.

8 Q. So if I understand what you just told me, you are
9 unable to at this moment give me a working definition of the
10 term "pure talc"?

11 A. I am unable to recite to you the chemical formula
12 for the mineral that a mineralogist defines as talc.

13 Q. I don't want the chemical formula.

14 A. That is the answer to your question.

15 Q. Please. We're trying to make an agreement here
16 that both of us don't intrude on the court reporter. I will
17 try not to intrude on your answers if you will show me the same
18 courtesy. Okay? Fair enough?

19 A. Go ahead.

20 Q. Now, if you are going to make statements about a
21 substance called pure talc, I want to know what you're talking
22 about when you make those statements, so that we will be on the
23 same wavelength. And if you don't know, then you can tell me
24 that.

25 A. All right. Let me see if I can find one of these

1 articles where they say what the mineralogists call pure talc,
2 and I will give you the chemical formula for it.

3 Q. If you don't know, sir, you can just tell me. I
4 can read the articles.

5 A. That is great, because I don't know it off the top
6 of my -- I do not know the chemical formula for what
7 mineralogists call pure talc off the top of my head. You can
8 find it in the articles sometime when we have more than four
9 minutes left.

10 Q. How does pure talc differ from industrial grade
11 talc that you mentioned when you use that term industrial grade
12 talc?

13 A. I thought I explained that. Industrial grade talc
14 tends to be a mixture of minerals, because the stuff that comes
15 out of the ground isn't pure.

16 Q. What minerals do you expect to find in talc for it
17 to meet your definition of industrial grade talc?

18 A. It varies. I mean the articles describe the
19 number of types of constituents that are found in the talcs,
20 these include tremolite, they include silica. Schultz and
21 Williams's article is probably a pretty good source if you want
22 a catalog of the different types of things that have been
23 looked for in industrial talcs published in 1942 in the Journal
24 of Industrial Hygiene. We have got it out at the Xerox place
25 right now.

1 Q. I would like to know as you sit here today what
2 you can recall, and we will get the articles out tomorrow and
3 look at them, but I would like to know in the next four minutes
4 what you can recall. Tremolite, silica. Anything else?

5 A. Those are the things that stand out in my memory,
6 but there are certainly other things that have been associated.
7 Anthophyllite has also been reported. And there are other
8 kinds of things that are a little less familiar to me because
9 my own background happens to include a particular emphasis on
10 such things as quartz or silica, and fibrous minerals like
11 tremolite and anthophyllite. But there are other things a
12 little less familiar to me, and therefore, not so easily
13 recalled by me which are enumerated in such articles as that of
14 Schultz and Williams in 1942.

15 Q. If a talc product does not contain tremolite,
16 silica or anthophyllite, does that still fall into the category
17 of industrial grade talc in your thinking?

18 A. Well, it does unless -- I mean, if it's used in
19 industry it's industrial grade talc, unless it's
20 mineralogically speaking absolutely pure in the sense of what a
21 mineralogist means by talc, in which case it would also be an
22 industrial talc, but it would be also a mineralogically pure
23 talc as distinguished from evidently almost every form of talc
24 that has been used in industry all over the United States and
25 Europe.

1 Q. So if I understand what you're saying, you define
2 industrial grade talc by its use as opposed to its composition.
3 If it's used in industry, it's industrial grade talc; is that
4 right?

5 A. No. I mean it mainly by its composition.

6 Q. And the composition --

7 A. Composition is a mixture.

8 Q. You have told me about tremolite, silica and
9 anthophyllite that you are aware of?

10 A. Yes.

11 Q. Would you also categorize talc without tremolite,
12 silica and anthophyllite as industrial grade talc simply
13 because it's used in industry?

14 A. Well, I would if it had anything in it except what
15 the mineralogists call talc, and even there, you know, it's
16 kind of like getting hung up on the words at that point to say
17 whether or not it's industrial grade or not. If it's pure, if
18 it's pure enough to be like -- I mean, if it's the highest
19 grade of pharmaceutically pure talc or something like that,
20 then perhaps we're talking about a different animal. But
21 industrial talcs that are described in the literature are for
22 the most part mixtures of minerals.

23 Q. Would you agree with me that the danger, assuming
24 that there is some danger posed by the inhalation of talc, will
25 depend in a large part on the minerals that are contained in

1 it?

2 A. Sure.

3 Q. Some types of talc may be more dangerous than
4 others?

5 A. That's true.

6 Q. Some types of talc may be safe?

7 A. I am not so sure about that, although there may be
8 some people who think so.

9 Q. Well, have you seen in your research into the
10 subject of talc any references to the fact that science has
11 been unable to connect health hazards with exposure to certain
12 types of talc?

13 A. I've seen certainly some statements like that by a
14 couple of authors from the Firestone Rubber Company in 1950
15 talking about the use of talc in the rubber industry.

16 Q. Anyone else?

17 A. At least they said one type of talc, I think the
18 type of talc they used wasn't so bad. There is also a
19 statement in the 1941 text of Rutherford Johnstone to the
20 effect that talc produced no undue pulmonary fibrosis, which is
21 kind of a backhanded way at that of saying something is not
22 dangerous. But in his 1948 text he went ahead and reported
23 that subsequent studies had shown to the contrary that talc was
24 not innocuous.

25 Q. We will come back to that tomorrow. And let's

1 close with this question. You said that you believe that there
2 is a majority opinion with regard to whether or not exposure to
3 talc poses a health hazard; right?

4 A. Well, I have tried to hedge on what the current
5 state of knowledge might be, but looking at all these articles
6 that have been published over time, it seems to me that there
7 has been a continuing thread, a strong thread of statements in
8 the medical literature and other scientific literature to the
9 effect that talcs used in industry are causing disease, and
10 some of them aren't causing real serious disease and some of
11 them are killing people, but they are causing lung damage, and
12 that this is evident in various ways, pulmonary function tests,
13 chest X-ray abnormalities and pathologic evidence.

14 Q. All I wanted to know was whether or not -- you had
15 told me earlier that there is a majority position with regard
16 to whether or not inhalation of talc poses a health hazard. Is
17 there in your opinion, or is there not?

18 A. I haven't taken a survey of what the current
19 status of talc is. I have seen reports by people from the
20 National Institute for Occupational Safety and Health and
21 others that would suggest to me that the majority opinion of
22 people who are somewhat knowledgeable about this probably is to
23 the effect that industrial talcs as have been used in this
24 country have caused disease.

25 Q. And with regard to whether -- assuming that there

1 is a majority opinion on that, do you have any idea when that
2 majority opinion became a majority opinion as opposed to a
3 minority opinion?

4 Q. I think it's always been a majority opinion since
5 people were investigating the subject. I think in the '30s and
6 '40s you were finding sometimes very little damage, sometimes
7 very grave damage. But the range has always been of people
8 finding degrees of damage attributable to breathing talc. Not
9 people saying that it doesn't cause any harm at all and other
10 people saying maybe it does.

11 Q. So if I hear what you're saying, that insofar as
12 you have been able to determine from reviewing these articles,
13 it has always been the majority opinion that inhalation of talc
14 poses a health hazard to those who inhale it?

15 A. Yes, and certainly, if inhaled in sufficient
16 quantities.

17 MR. HINKLE: I guess that is a good place to
18 take up in the morning. Anybody want to say anything at
19 this point?

20 MR. CROSBY: I think that you wanted us to go over
21 something with you, Doctor, so we would be straight
22 on --

23 THE WITNESS: What you want me to bring?

24 MR. CROSBY: What you were to bring.

25 THE WITNESS: My list is: You want the traveling

1 corporate files, and I will find out who all is
2 represented here, so I don't leave anybody out. List
3 of talc references sent initially to Edholm. Okay.
4 That was my old list from my old talc file. And you
5 want the stuff from Kenneth Lynch's files that I got
6 from the California lawyers about Kaolin pneumoconiosis.

7 MR. CROSBY: Let me go through the other things
8 that I have here. The NIOSH report.

9 THE WITNESS: I don't know if I have that. I
10 know that if I don't have it that Mr. Hays can come
11 up with it.

12 MR. HAYS: We will see if we can. They may have
13 it themselves.

14 MR. CROSBY: I do not. If I did, I wouldn't ask
15 for it.

16 THE WITNESS: Who's representing talc people?
17 Do you all have this NIOSH report? There is a NIOSH
18 study of rubber workers. I will look for it.

19 What else?

20 MR. CROSBY: You had mentioned your letter
21 to the Food and Drug. Since the articles are gone,
22 I don't know if it's in there.

23 THE WITNESS: It's in there.

24 MR. CROSBY: That is fine. If you get the
25 additional talc articles, will you bring those? You

1 said you thought the ones that the sharp lawyer didn't
2 find you were going to undertake?

3 THE WITNESS: I've got another sharp lawyer.

4 MR. CROSBY: All right, sir. We should have
5 the asbestos articles here in the morning.

6 I asked you if you would please look or see if
7 you could find the Vigliani articles and Johnstone
8 1960, and looking through your articles you didn't see
9 them?

10 THE WITNESS: I will see if I have it.

11 MR. CROSBY: When you say you are talking about
12 the traveling company knowledge documents --

13 THE WITNESS: It's the same old stuff.

14 MR. CROSBY: What I am getting at, that may be
15 what your traveling company documents are, I want
16 you to be sure those are the documents upon which you
17 base your opinions.

18 MR. GOSS: Doctor, one other thing. You had just
19 referred to your list of citations from your old talc
20 file. If there is anything else in that old talc file
21 we would like the entire copy of your old talc file.

22 THE WITNESS: Anything else?

23 MR. HOOD: I would like the record to reflect that
24 we have got a room full of lawyers from all over the
25 country --

1 MR. HAYS: We went off the record, and we
2 understood that was going to be the end of the
3 questioning today you had.

4 MR. HOOD: I have got a statement for the record,
5 if you will let me make it. I am willing to sit here
6 as long as we need to to finish this witnesses'
7 deposition. I think it's a mistake to recess at 5:00.
8 We have been given no reason other than the witness
9 wanted to leave. He doesn't have any medical or health
10 reasons for leaving. I think it's going to result in
11 an inconvenience to all of the lawyers, including
12 plaintiff's counsel, anticipating he's going to try to
13 leave at 1:00.

14 I have got at least eight hours of questions
15 for this witness. There might be lots more than that
16 depending on his responses and promptness of his
17 responses and completeness of the responses. I am
18 going to move to disqualify him as a witness at the time
19 of trial if I am not allowed to --

20 MR. HAYS: You have made your statement. I will
21 reserve my response.

22 MR. HOOD: I just want you to know where I am
23 coming from.

24 MR. HAYS: You have got plenty of depositions
25 from this gentleman. You come from a group of attorneys

1 that I am sure have lots of information and a book on
2 him. I consider the fact that you state you have got
3 eight hours of questioning coming when you are going to
4 be following another attorney that is going to be
5 questioning on asbestos, you have got all that asbestos,
6 I think that's the rankest form of intimidation, and I
7 think you are trying to wear the witness out, and I
8 don't think you are going to disqualify anyone based on
9 that.

10 MR. HOOD: When you hear the questions and
11 answers, you may change your opinion.

12 MR. CROSBY: Just for the record, I join in the
13 comments by Mr. Hood. I don't know how long my
14 questions will be, since I have not been privy to the
15 documents we had requested with the witness, and as it
16 now turns out he had some of the articles and documents
17 for the other deposition this morning.

18 MR. HAYS: That deposition was going to be
19 incorporated into this deposition, so there you are.

20 MR. CROSBY: I don't know if it was going to be
21 incorporated. Owens-Corning didn't agree to that.

22 MR. HAYS: It was our understanding it was going
23 to be incorporated.

24 MR. HINKLE: The agreement was it would be
25 typed up and attached --

1 MR. CROSBY: If anyone representing Owens-Corning
2 Fiberglass entered into that stipulation, it was without
3 my knowledge and without the knowledge of Owens-Corning
4 Fiberglass.

5 MR. JAMES: As regard to Pittsburgh-Corning there
6 is no agreement to that effect either.

7 MR. HAYS: We're off the record. I assume there
8 will be no further records made in my absence.

9 (Whereupon, the deposition was recessed until July 6th,
10 at 10:00 a.m.)

11 Q. (BY MR. HINKLE) Dr. Castleman, we were talking
12 yesterday about categories of talc, and we had broken it down
13 basically into two categories, pure talc and industrial grade
14 talc. Do you recall?

15 A. Yes.

16 MR. CROSBY: Could we find out what the witness
17 brought with him, so we could be looking at that while
18 you are asking your questions?

19 MR. HINKLE: I think that's just fine.

20 Q. (By Mr. Hinkle) Dr. Castleman, if you would,
21 describe for us what materials that you brought with you today.

22 A. I have brought with me what I refer to as the
23 traveling files relating to corporate knowledge under numerous
24 categories, either by company or by type of information, some
25 relating to trade associations, and some relating specifically

1 to companies.

2 MR. HAYS: We just ask that you look at them
3 right here, if you would, and not be passing the files
4 around, if that would be all right with you.

5 MR. CROSBY: Well, the problem I have is that
6 right here in front of me is the table that is occupied
7 by exhibits, and the witnesses' coffee cup, and various
8 files.

9 MR. HAYS: Well, we will move down and make room
10 for you.

11 THE WITNESS: We will make room for you. I don't
12 want these files out of my sight right now. Maybe later
13 on.

14 MR. CROSBY: We are going to mark them as exhibits
15 to this deposition.

16 MR. HAYS: Well, after they're marked, then that's
17 a different matter.

18 THE WITNESS: I would like them to be photocopied
19 first, and you can mark whatever you want in them.

20 MR. CROSBY: I am going to have a difficult time
21 having these photocopied in the witnesses' presence
22 while he's being deposed.

23 THE WITNESS: I didn't say you had to do
24 that.

25 MR. CROSBY: You just said you didn't want them

1 out of your sight.

2 THE WITNESS: At the moment I don't want them out
3 of my sight. Mr. Hays can probably arrange to have them
4 photocopied, and he can handle the documents with the
5 photocopying place. I am sorry, but that is the nature
6 of this litigation is that sometimes things get lost
7 when you go back and forth.

8 MR. HAYS: There are so many attorneys, something
9 can be innocently misplaced, not intentionally.

10 MR. CROSBY: I find the comments by the witness
11 unfounded.

12 MR. HAYS: Well, let's not get into this. We're
13 not interested in your early morning bantering.

14 MR. CROSBY: Fine.

15 MR. HAYS: You can take a look at them, they are
16 right in front of us--

17 MR. CROSBY: Let's mark this box as the next
18 numbered exhibit.

19 MR. HAYS: Play your little game.

20 MR. CROSBY: And then I am going to have them
21 copied as soon as I can. I'm trying to expedite
22 matters, Mr. Hays.

23 MR. HAYS: We just asked you to look at them
24 right there, and you're fighting about it.

25 MR. CROSBY: I can't copy them sitting right here.

1 MR. HAYS: You aren't copying them right now. You
2 just asked to look at them.

3 THE WITNESS: Why don't you pull up a chair, put
4 them on a chair and look at the files.

5 MR. CROSBY: I would rather do it at the table
6 down there at the very end where there is plenty of
7 room.

8 MR. HAYS: The first thing you will do is find
9 something that is not applicable to you, some one will
10 pick up the file, the file will lay on the table and
11 get mixed up with someone else's file. There will be a
12 piece gone, something will be missing.

13 MR. WAGNER: Just for the record, I don't think
14 the witness completed his answer to your question,
15 Mr. Hinkle.

16 THE WITNESS: I am not trying to be difficult.

17 MR. CROSBY: You are succeeding without trying.
18 Go ahead, Mr. Hinkle. What else?

19 Q. (By Mr. Hinkle) Let's go ahead and catelog for us
20 again what else you brought, please

21 A. This is something that I just received relating to
22 Kaolin and pneumoconiosis, Kenneth Lynch papers which were
23 mailed to me by the Casey, Gerry Law Firm.

24 Q. When did you receive that particular item?

25 A. Within the last few days. The cover page is dated

1 June 29, 1989, the transmittal letter.

2 Q. Do you not have a stamp which shows your date of
3 receipt?

4 A. I didn't come here prepared, you know, to show you
5 the envelope it came in.

6 Q. I didn't ask you that. I asked you --

7 A. I don't stamp things received. I don't have a
8 secretary --

9 Q. Then that is the answer to the question,
10 Dr. Castleman.

11 A. I don't have an accountant.

12 Q. Just a moment, Dr. Castleman. Let's try to get
13 off on the right foot today, shall we? And let's have the same
14 agreement we had yesterday, and I will not intrude on your
15 answers if you do not intrude on the questions. And we will do
16 this out of respect for the court reporter. All right?

17 A. Go ahead.

18 Q. All I asked you was whether or not you had stamped
19 your date of receipt on that document?

20 A. I have never worked in an office where that was
21 done except the government offices I was employed in.

22 Q. So the answer to that question is no; correct?

23 A. Correct.

24 Q. All right. Go on. Tell us what else you brought.

25 A. You asked for the talc reference file. Here it

1 is. Many of these are duplicated, duplicative references of
2 things that we have already discussed. Others relate to talc
3 in their use as cosmetic powders and ovarian cancer and the
4 controversies about that in the early '70s, which I hadn't
5 originally thought was all that relevant to this case. But in
6 any event, you are welcome to look through them and come to
7 your own conclusions.

8 My own list of articles, early articles that I had came
9 from a letter I had written to somebody in 1980 or part of a
10 letter I had written. And then I had marked a few more things
11 on it. This is my initial list of old articles on talc that I
12 knew about.

13 Q. Stand by for a moment and let's try to make some
14 sense out of this.

15 We're going to mark this box that you brought, which I
16 think you have told us is your traveling corporate file. Is
17 that what you called it?

18 A. Yes.

19 Q. We will mark that as Exhibit No. 86.

20 The packet of documents that you received from the Gerry
21 law office relating to Kaolin we will mark as Exhibit 87.

22 MR. CROSBY: Let me state in the record that No.
23 86 is a box with the contents containing several files.
24 I will count the files in a minute.

25 87 is the memo with documents relating to Kaolin.

1 And I will affix the Exhibit number to the memo that
2 forwards it. It's about an inch thick.

3 Q. (By Mr. Hinkle) Now Exhibit No. 88 will be the
4 file that you -- the talc reference file, is that what you call
5 it?

6 A. It's marked talc references, et cetera.

7 Q. All right.

8 MR. CROSBY: I am affixing 88's exhibit sticker
9 to the manila folder, and this contains about an inch
10 and a half of various materials, most of which appear
11 to be published.

12 Q. (By Mr. Hinkle) Next, please?

13 A. This is a file marked IHF, it's part of my
14 traveling files, so that can just go with the afore numbered
15 exhibit box.

16 Q. That would be 87?

17 MR. CROSBY: No. It will be part of 86.

18 Q. (By Mr. Hinkle) Part of Exhibit 86. All right.

19 This July 7, 1980 letter that you handed me, we will
20 mark as exhibit what, Mr. Crosby?

21 MR. CROSBY: 89.

22 Q. (By Mr. Hinkle) Exhibit No. 89.

23 MR. CROSBY: It's a letter dated July 7, 1980
24 addressed in handwriting to "Dear Ken" with what appears
25 to be Xeroxed on the front side of Barry I. Castleman,

1 Industrial Environmental Consultant, down through and
2 after mill man occupational medicine, the Xerox
3 ceases, and handwriting begins in blue ink. That won't
4 show on Xerox, that is why I dictated that in the
5 record.

6 MR. HAYS: Let me check with you, because I was
7 getting some materials out that I had Xeroxed for you
8 today, I Xeroxed a copy of this stuff.

9 MR. CROSBY: Which may be a little late.

10 MR. HAYS: Exhibit 85, can we track down through
11 85 through 89 and make sure we're in sinc on this?

12 MR. HINKLE: I think that Dr. Castleman had some
13 of those exhibits. Isn't that right, Ms. Reporter?

14 MR. RHODES: Yesterday when we left we couldn't
15 find 81 and 83.

16 THE WITNESS: I had walked off with them. They're
17 all back.

18 MR. CROSBY: Are we on the record?

19 MR. HOOD: Did you get the witnesses' comments on
20 the record?

21 MR. HAYS: Did you get Counsel's comments on the
22 record?

23 MR. HINKLE: Guys, we're not going to get anywhere
24 acting this way. Let's pay attention to business. Okay?

25 MR. HAYS: I appreciate that.

1 MR. HINKLE: Jim, let's go to work.

2 MR. HAYS: If we can control these other
3 attorneys, fine. I just want to deal with you.

4 MR. HINKLE: Let's go to work.

5 MR. HAYS: 85 is what?

6 MR. CROSBY: Excuse me, please. I am trying to
7 answer your question. The exhibits that were
8 inadvertently taken yesterday have been returned, and
9 now we have a complete set, and 85 is a handwritten
10 list of the witness in black and in blue with parts of
11 articles or titles of articles Xed out that was the
12 basis of the search for the attorney.

13 86 is the box of materials that the witness has
14 referred to as his traveling documents relating to
15 corporate matters.

16 87 is a cover memo with attachments addressed to
17 the witness from a legal assistant to Mr. Greenblatt.

18 88 is a manila folder and its contents are
19 entitled "Talc References, et cetera".

20 89 -- Have you got that?

21 MR. HAYS: I have got that.

22 MR. CROSBY: Is the July 7th, 1980 letter.

23 Q. (By Mr. Hinkle) Okay. Is that all that you
24 brought with you today, Dr. Castleman?

25 A. For this deposition, yes.

1 Q. Did you bring anything else with you today?

2 A. I brought things that I am taking to Washington
3 this afternoon to deal with the Environmental Protection
4 Agency.

5 MR. HAYS: I also have some materials here that
6 he has not been able to read that were hard to collect,
7 and I have brought those. I have a stack of those. He
8 hasn't reviewed them yet.

9 MR. HINKLE: Well, if he hasn't reviewed them,
10 I am not sure they have anything to do with the case.

11 MR. HOOD: There were two other items the Doctor
12 was going to bring. A NIOSH report, and additional
13 medicals articles which were to be obtained by a local
14 law firm. Do we have either of those?

15 THE WITNESS: This is the additional medical
16 articles that have so far been obtained from the very
17 crossed out list of outstanding articles, still
18 outstanding.

19 MR. HINKLE: Let's get them in the record then.

20 THE WITNESS: And the NIOSH study, I have not
21 been been able to find.

22 MR. HOOD: Can we get that identified?

23 MR. HAYS: I think Mr. Hinkle will take care of
24 that.

25 MR. CROSBY: I don't know what's the quickest way.

1 I can just give the numbers, and identify what it is if
2 you want me to.

3 MR. HINKLE: How many articles do we have here?

4 MR. CROSBY: One, two, three, four -- there appear
5 to be 10 articles, although there is a page here that is
6 just loose that may be a portion of an article, rather
7 than--

8 MR. HAYS: It's a portion of an abstract, and
9 it is a separate document.

10 MR. HINKLE: May I see that, Mr. Crosby, please?
11 We will mark this as a single exhibit comprised of
12 an article from the Journal of American Medical
13 Association, Volume 3, November-December 1938.

14 MR. CROSBY: Could we do separate numbers for
15 each one? I will do the numbers. That is 90.

16 MR. HINKLE: That will be fine.

17 Exhibit No. 91 is apparently an article in
18 German which I can't make heads or tails of.

19 Q. (By Mr. Hinkle) Do you read German,
20 Dr. Castleman?

21 A. A little bit.

22 Q. Would you be kind enough to give us the benefit of
23 your little bit of German and tell us what that is?

24 A. Yes. This is by Dr. Baader, and it's a review on
25 talcosis.

1 Q. Can you give us a date?

2 A. It's in a journal dated 1950, and it's from the
3 German Medical Weekly, or the Gesundheitsfürsorge Und
4 Arbeitsmedizin.

5 Q. The court reporter will probably not be able to
6 follow that.

7 MR. CROSBY: I will hold it up for her so she can
8 transcribe it.

9 MR. HINKLE: I think that is good enough for the
10 identification purposes. That is Exhibit No. 91?

11 MR. CROSBY: 91, yes, sir.

12 MR. HINKLE: Exhibit 92 is an article from the
13 American Medical Association Archives of Industrial
14 Health, Volume 20, July through December of 1959.

15 MR. CROSBY: So marked.

16 MR. HINKLE: That is 92?

17 MR. CROSBY: Right.

18 MR. HINKLE: Exhibit No. 93 is an article from
19 the British Journal of Industrial Medicine, 1949
20 entitled "Talc Pneumoconiosis".

21 Exhibit No. 94 appears to be, well, let me just
22 ask.

23 Q. (By Mr. Hinkle) Dr. Castleman, do you know what
24 this is?

25 A. This is a 1937 article from the Archives of

1 Pathology. And we can probably get the correct citation wi
2 little bit of checking.

3 Q. Just hand it back, if you would, please.

4 A. Can I write Archives of Pathology, 1937 on it?

5 Q. Sure, if it helps us identify it.

6 MR. CROSBY: It was 1937, wasn't it?

7 Q. (By Mr. Hinkle) Dr. Castleman, do you know?

8 A. We had a little bit of difficulty locating it
9 because of the cite I had written down didn't turn out to be
10 exactly correct, since this gentleman found it, hopefully he
11 knows what he found and what it was.

12 Q. All I would like to know is whether or not you
13 know what this is, Dr. Castleman?

14 MR. HAYS: Which article are you referring to?

15 MR. HINKLE: It's styled "Talcum Powder Granuloma
16 by Robert Feinberg, M.D.

17 MR. HAYS: I apologize. I should have gotten a
18 coversheet. I thought it would have the citation by
19 volume and page internal to the article. But it only
20 says "Archives of Pathology" on Page 38 at the top. But
21 it would have been after 1936, so the 1937 date I
22 estimate would be correct.

23 MR. CROSBY: Number 94 is an article entitled
24 "Talcum Powder Granuloma", No. 94.

25 MR. HINKLE: Exhibit No. 95 is an article from

1 the Archives of Environmental Health, Volume 10, March
2 19, '65 entitled "Effect of Talc Dust Inhalation on Lung
3 Function".

4 Exhibit No. 96 is another article from Archives
5 of Environmental Health, Volume 9, November 1964,
6 entitled "Lung Function in Talc Workers".

7 Exhibit No. 97 is another article from the
8 Archives of Environmental Health, Volume 7, July 1963
9 entitled "Talc Pneumoconiosis".

10 Q. (By Mr. Hinkle) Exhibit No. 98, can you identify
11 Exhibit No. 98 for us, please, sir?

12 A. This is from the abstracts section of the Journal
13 of Industrial Hygiene, Volume 17, Page 60, May 1935, and it's
14 an abstract covering the article of Dr. Dreessen on Pages 60
15 and 61.

16 Q. (By Mr. Hinkle) And can you identify Exhibit No.
17 99 for us, please, sir?

18 A. This is also from the abstracts section of the
19 Journal of Industrial Hygiene. This is from the January 1931,
20 Page 14, and the Volume number would be four numbers down from
21 the preceding exhibit volume number, it's not indicated on the
22 face of the document. So that would be Volume 13. I am
23 writing "V" 13.

24 Q. What does it deal with?

25 A. The abstract is about pneumoconiosis of sandstone,

1 silica, chalk, porcelin, granite, cement and shell lime
2 workers.

3 Q. All right.

4 MR. HINKLE: Mr. Hays, did you bring anything
5 else that we need to mark as an exhibit today?

6 MR. HAYS: No. I did copy these documents about
7 Dr. Kenneth Lynch that were requested yesterday, so
8 everyone would have a copy.

9 MR. CROSBY: I'll pass them around.

10 THE WITNESS: This has already been marked as
11 an exhibit, and I will just keep this for my copy.

12 MR. HINKLE: Has it already been marked as an
13 exhibit?

14 MR. HAYS: I think it was that portion of the
15 original 70 some odd --

16 MR. CROSBY: I don't know. You all will have
17 to me help me out.

18 THE WITNESS: Yes. It's No. 87.

19 MR. CROSBY: It's in No. 87, because No. 87 is
20 considerably more bulky than what you just had.

21 Q. (By Mr. Hinkle) Dr. Castleman, as I understand
22 it, there was some discussion yesterday about a NIOSH report.
23 You have looked for that report and have been unable to locate
24 it. Is that true?

25 A. That's correct.

1 Q. Will you identify that report for us by date and
2 by subject matter?

3 A. It was an evaluation of rubber workers, rubber
4 worker plants, and I think it even I included the Miami,
5 Oklahoma plant, but I am not sure of that. And I just looked
6 at it briefly, and as soon as I saw that it was of relatively
7 recent vintage, I passed over it because I was at that time
8 more focused on the historical development of knowledge about
9 talc, and time was limited, and I don't know what happened to
10 that.

11 Q. Can you give us some idea about the date of that
12 NIOSH report?

13 A. I think it was in the 1980s.

14 Q. Do you have any idea concerning the conclusions
15 reached in that report?

16 A. No.

17 Q. And you told us that you skipped over the more
18 recent materials that were offered to you because you are more
19 concerned with the historical development than the current
20 state of knowledge?

21 A. Right. I understood that the historical
22 development was what I was going to be asked to talk about in
23 this case, not the current state of medical knowledge on talc
24 disease.

25 Q. Now, with regard to the articles that were brought

1 by Mr. Hays today, and I believe that's Exhibits 90 through 99,
2 you have not seen at all. Is that true?

3 A. Well, I haven't seen them until this morning, just
4 now, right.

5 Q. Approximately five minutes ago?

6 A. Right.

7 MR. HINKLE: Let's go off the record for a moment.
8 Okay, Jim?

9 MR. HAYS: Fine.

10 (Whereupon, a discussion was held off the record.)

11 MR. CROSBY: I want to clarify something right
12 now. With respect to Exhibit No. 87 I have marked
13 the documents contained in 87 as 87 "A" through 87
14 "J", so that each one bears its own exhibit sticker.

15 MR. HAYS: "A" through what? I didn't hear you.

16 MR. CROSBY: "J". Now, with respect to what is
17 in the box, if people want them copied, what do you
18 suggest we do?

19 MR. HAYS: Well, I suggest they give us a note
20 saying they want them copied, and we can have them sent
21 to them for the purposes of the deposition, they can
22 refer to the originals in the file. We can go through
23 the file that way, and then after the deposition we can
24 have them copied, and they can make a list of the
25 document if they want to, in order to protect

1 themselves, or they can just put it on the record by
2 going through a document at a time.

3 MR. CROSBY: Let's go off for a second, if it's
4 all right.

5 (Whereupon, a discussion was held off the record.)

6 MR. CROSBY: Exhibit '86 is the box, and it
7 contains 14 to 17 files, depending on how you count
8 them. Included is -- I will read the tabs off of the
9 manila folders, and I will later mark them 86 "A"
10 through whatever letter of the alphabet. Saranac
11 Studies; Carey/Celotex; Owens-Illinois; O-C;
12 GAF-Rubberoid; Eagle-Picher; Keene NIMA, all caps
13 N-I-M-A minutes; Fibreboard; Pittsburgh-Corning; H.K.
14 Porter; Contract Unit Claims. A separate file entitled
15 Contract Unit Comp Claims. A separate file Magnesa
16 A-s-s-n. A file that is not in the box but is a part of
17 86 is entitled IHF. Another file entitled Garlock.
18 Another file entitled ATI.

19 After I have had a chance to review some of the
20 documents, I can have some indication of what of these
21 materials I will want copied if it's less than all of
22 them.

23 And I understand we're getting a table down here
24 so that we can review the documents?

25 MR. HINKLE: I heard Mr. Rhodes make that request

1 of the some of the hotel staff, so I am assuming that
2 is being taken care of.

3 Q. (By Mr. Hinkle) Dr. Castleman, do you
4 understand that you are being offered as an expert witness in
5 the Oklahoma Tire Worker Litigation?

6 A. Yes.

7 Q. What do you see as the subject matter of your
8 expertise in the Oklahoma Tire Worker Litigation?

9 A. The subject matter as I see it is the presentation
10 of the historical development of knowledge about the hazards of
11 asbestos and talc as reflected in the public literature. And
12 with respect to asbestos, the historical development of
13 knowledge and actions taken on the basis of such knowledge in
14 some cases on the part of the industry itself, that is mined
15 and manufactured asbestos products, mined asbestos and
16 manufactured asbestos products.

17 Q. Do you see your expertise in the Oklahoma Tire
18 Worker Litigation extending beyond what you just said in any
19 way?

20 A. I don't think so. But what ways -- do you have
21 anything in mind particularly?

22 Q. Well, no. I want to know what you have in mind,
23 Dr. Castleman.

24 A. I told you.

25 Q. All right. Now, with regard to your expertise in

1 the historical development of knowledge concerning the hazards
2 of talc, you consider yourself to be an expert in that regard?

3 A. Expert in the sense that I could aid the jury in
4 understanding the fact that there has been a number of
5 publications about talc dust as a cause of lung problems, that
6 these publications appeared in primarily medical journals
7 published in this country and Great Britain as well as in other
8 countries and other languages, and that there was obviously a
9 lot of other international exchange of information as reflected
10 in the literature. So I would be aiding the jury in that sense
11 as an expert to tell them that this body of knowledge existed.

12 Q. So I take it then that the answer to my question
13 is yes?

14 A. It is in the sense that I have described.

15 Q. All right. Now, at what point did you become an
16 expert in the historical develop of knowledge concerning the
17 hazards of talc?

18 A. Within the last few days.

19 Q. Okay.

20 A. I mean the process started earlier, but the actual
21 sitting down and reading of the documentation to the point
22 where I could explain it somewhat, was not until within the
23 last week anyway.

24 Q. Within the last week?

25 A. Well, within the last week I sat down in a much

1 more detailed way than ever before and read a larger number of
2 articles on this subject than I had ever before read.

3 Q. Did you consider yourself to be an expert in the
4 historical development of knowledge concerning the hazards of
5 talc, say, six months ago?

6 A. I did not consider myself an expert on that,
7 although I was aware of the fact there was a body of knowledge
8 going pretty far back talking about talc as a respiratory
9 hazard.

10 Q. So I take it then, that the consumation of your
11 expertise occurred having reviewed the articles that were
12 identified and marked yesterday?

13 A. Yes, and today.

14 Q. And today. All right.

15 We talked yesterday about broad categories of talc, pure
16 talc and industrial grade talc. What I would like for you to
17 do today, if you would, please, as an expert in the historical
18 development of medical knowledge concerning the hazards of
19 talc, tell us what subcategories we might expect to find within
20 those broad categories.

21 A. Well, there are different minerals that are
22 present in different proportions, and the various types of
23 talcs that have been used industrially. If I could refer to
24 the Schultz and Williams article now that we have gotten them
25 back from the copying place. This is No. 22.

1 MR. HAYS: I would like to request on the record
2 that the originals of the Doctor's research, the
3 articles that he's presented at your request here today
4 be returned to him, and copies substituted.

5 MR. HOOD: I have got one comment on that. As
6 I have started to look at the copies several pages
7 have been cut off by the copier. So I wouldn't have
8 an objection to that provided the copy is complete.

9 MR. HINKLE: One other --

10 MR. HAYS: And I make that request as to all
11 original documents. Is there any problem with that?

12 MR. HINKLE: Well, the one thing that I would
13 be interested in having is I would like to have these
14 originals of these copies attached to the deposition
15 for this reason, because the Doctor has made some
16 notations on them, some in red ink, some in blue
17 ink, apparently some in pencil, and he's done some
18 writing on the back. So if the Doctor would have
19 no objection, I would prefer to have these exhibit
20 with his handwriting on them attached to the deposition.
21 We can certainly see to it that he gets copies of these
22 copies for his own use. Is that all right?

23 MR. HAYS: That's fine.

24 MR. CROSBY: As long as we're doing housekeeping,
25 let me reflect on the record that Exhibits --

1 MR. HAYS: Let me clarify something. Do you mean
2 that as to the box of documents, too?

3 THE WITNESS: Oh, no. We are only talking about
4 the talc articles.

5 MR. HINKLE: That's all that I was referring to,
6 Dr. Castleman. But Mr. Crosby has something he needs to
7 clean up evidently.

8 MR. CROSBY: What I am trying to do is elaborate.
9 Exhibit No. 86 has now been subcategorized such that it
10 now contains 86 "A" through 86 "Q", stickers affixed to
11 each particular manila folder that has the labels that I
12 previously read into the record. And I have not yet had
13 an opportunity to sit at this table with other counsel
14 to review the documents, but these are now marked as
15 exhibits to this deposition, and after we have had a
16 chance to review them, we can determine whether or not
17 we can exchange them for copies or not. I just can't
18 say right now.

19 MR. HINKLE: I guess you will have to take those
20 up on an item-by-item basis.

21 MR. HAYS: If you want to have the entire box
22 copied, that is no problem. We're just trying to
23 resolve that. If you want to send them out of here
24 and have them copied, we can start that. But you are
25 not going to have them available to question him.

1 That's your problem really more than it is ours.

2 MR. HINKLE: I think that probably the items and
3 matters we will be discussing with Dr. Castleman this
4 morning won't be related to matters in the box anyway.

5 MR. CROSBY: Can we go ahead and send the box now
6 for copying since the consensus the witness and the
7 lawyers is we're not going to get past talc today
8 anyway?

9 MR. HAYS: I don't have any problem if Kinko's can
10 pick it up here and deliver it back here.

11 MR. HINKLE: Is that all right with everybody?

12 MR. HAYS: We will place it in the custody of the
13 reporter.

14 MR. CROSBY: And what we may do is give Kinko's
15 half of it and we can be reading the other half, and
16 when they bring that half back, give them the other
17 half.

18 THE WITNESS: I am going to be taking off in two
19 and a half hours.

20 MR. CROSBY: She has custody of them until we get
21 them all back anyway. Why don't we go ahead with
22 the questions. We'll see if we can work out the
23 logistics of it.

24 MR. HAYS: Why don't we just call Kinko's and get
25 them in here, and we can give them half of them and the

1 Doctor will take half of them with him, or I'll keep
2 them. How do you want to handle it?

3 MR. HINKLE: Let's go off the record.

4 (Whereupon, a discussion was held off the record.)

5 MR. HAYS: It's understood that the originals will
6 be returned to Dr. Castleman after they are checked
7 for-- after the copies are checked for conformance with
8 the original documents.

9 MR. CROSBY: That is true, unless there is
10 something on an original in a different color ink
11 that can't be shown on the copy. And provided the
12 witness also understands that these are now exhibits
13 to this proceeding, and even when they are returned,
14 he's to maintain them intact and in their present form
15 of integrity.

16 MR. HAYS: Well, not if we're substituting copies.
17 If we're substituting copies, we're making the copies
18 the exhibits, and the originals are his documents to do
19 what he wants to with. First of all, those are his
20 documents. They are not anybody else's property.

21 MR. CROSBY: They are now in the Court's custody.

22 MR. HAYS: They are in the Court's coustody,
23 but it's still his personal property. He's not giving
24 up that right by making it an exhibit. If we substitute
25 copies, then the copies are the record for the court,

1 And those are returned to him are his own documents to
2 do what he wants.

3 MR. CROSBY: I quite agree. The problem being
4 that if these are still exhibits and if there's problems
5 with legibility and colors of ink and matters such as
6 that, I want him to understand he's not to do anything
7 to interfere with the integrity until those matters are
8 revolved.

9 MR. HAYS: That's fine. We don't have any
10 problem with that.

11 THE WITNESS: But that is within a reasonably
12 short time of the copying. Because these documents
13 travel around the country, and I have no way of assuring
14 that any of these files are going to be maintained like
15 it was in a bank vault.

16 MR. CROSBY: I think we have made whatever
17 position we have clear.

18 MR. HINKLE: Dr. Castleman, you just a moment
19 ago announced once again your intention to leave us
20 at -- what time did you say?

21 THE WITNESS: Between 1:00 and 1:30. I understand
22 there is a train that I can get to Washington on that
23 leaves at a little before 2:00.

24 MR. HINKLE: In that connection, Mr. Hays,
25 arrangements have been made for a telephone conference

1 with the magistrate on this matter now. I think that
2 they are expecting a call from us. And so who is in
3 charge of getting the magistrate on the line?
4

5 (The following is a telephone conversation with the
6 Honorable Judge Wagner, taken on July 6th, 1989 during
7 the depositions of Barry Castleman.)
8

9 THE MAGISTRATE: This is John Wagner.

10 MS. SIEGEL: This is Nancy Siegel, and we are here
11 with Mr. Hays in the asbestos litigation. Can you
12 hear us?

13 THE MAGISTRATE: Yes.

14 MS. SIEGEL: We have got a dinky speaker phone and
15 a bunch of lawyers.

16 THE MAGISTRATE: What seems to be the problem?

17 MS. SIEGEL: We're here taking the deposition of
18 Dr. Castleman. This was arraigned with the plaintiff
19 some time ago. I would think about a month ago the date
20 was arraigned. Notice went out to commence on the 5th of
21 July. I think the file stamp was on July 23rd, or
22 excuse me, June 23rd. Dr. Castleman was served with
23 notice, I believe, on or about July 28th. There has
24 been no objection filed to that notice, and it's my --

25 MR. HAYS: I have filed an objection.

1 MS. SIEGEL: There has been no objection filed as
2 to the subpoena by an attorney on behalf of
3 Dr. Castleman. There has been an objection filed by
4 plaintiff's counsel to the parameters of the notice.

5 THE MAGISTRATE: Could you -- objection to the
6 what?

7 MS. SIEGEL: There has been an objection filed by
8 the plaintiff's counsel to the notice, but there has
9 been no objection filed as to the subpoena by a lawyer
10 on behalf of Dr. Castleman.

11 By agreement yesterday morning we were to allow
12 the plaintiff and counsel for Eagle-Picher in another
13 case pending in this jurisdiction in Maryland, I guess,
14 to have a video deposition to begin before the Oklahoma
15 litigation began their inquiry. Apparently at the last
16 minute they settled that case, and this deposition was
17 to commence at that time. However, a number of the
18 attorneys were delayed in arriving here because they
19 expected a video deposition in another case to be going
20 on.

21 Yesterday we were advised by Dr. Castleman that he
22 had received notice about an EPA hearing to be conducted
23 in Washington that he intended to appear at this
24 afternoon, and that he was going to leave this
25 deposition at 1:00 or 1:30.

1 He has additionally advised us that he will be
2 available until approximately noon tomorrow. So he
3 intends to leave at 1:00 or 1:30 for the rest of the
4 day, and to return tomorrow to be present for
5 approximately a half a day.

6 Our request to you at this point is for a little
7 encouragement, I guess, to plaintiff's counsel to
8 encourage this witness to obey the subpoena that has
9 been served on him, or in the alternative to request
10 that plaintiff's counsel pay for the expenses
11 associated with all these attorneys sitting around
12 wasting time for half a day until tomorrow morning,
13 and/or that this witness be precluded from testifying at
14 the time of trial.

15 And that is what we're calling about, and the
16 request and the relief that we're seeking at this time.

17 THE MAGISTRATE: Mr. Hays?

18 MR. HAYS: Good morning, Magistrate Wagner.

19 We have entered into a general agreement as to a
20 time estimate for depositions of experts to be a matter
21 of a two day period of time, understanding that as
22 depositions go, things can be prolonged or they can be
23 shortened.

24 The subpoena that was served and the notice that
25 was served did not set forth a specific time period, it

1 just said it was to commence July 5th, 1989 at 10:00.
2 We filed an objection to that, the Doctor adopted our
3 objection to that subpoena yesterday. This is the
4 history of the matter, because of Doctor --

5 THE MAGISTRATE: What's the basis for the
6 objection?

7 MR. HAYS: Well, as to the third item, that it was
8 over broad. They said they wanted "All documents which
9 you have reviewed or prepared, or upon which you rely in
10 support of any opinions or conclusions which you now
11 have or will testify to at the time of trial concerning
12 talc and it's manifestations in the chest, and/or
13 pulmonary disease caused by talc. It has nothing -- it
14 doesn't say anything about asbestos. But we have in the
15 spirit of this deposition supplied a great deal of
16 documentation. We supplied over 70 articles dealing
17 with talc. We have provided over --

18 THE MAGISTRATE: Let me interrupt you here.

19 MR. HAYS: Yes, sir.

20 THE MAGISTRATE: Are there any defendants of
21 whom -- well, Ms. Siegel says here there was -- we're
22 not talking really about documents at this point, that
23 is not our fight.

24 MR. HAYS: Let me back up then. We agreed to take
25 this deposition --

1 THE MAGISTRATE: You didn't object to the time?

2 MR. HAYS: No, sir. We agreed to take the
3 deposition in concurrence with another deposition by
4 Mr. Sutter. It was a video deposition for trial in
5 asbestos cases and Eagle-Picher was a defendant.

6 It was agreed that we would adopt that deposition,
7 the transcript of that deposition, incorporate it
8 by reference into our deposition, so that perhaps many
9 questions concerning asbestos would be precluded by
10 these defendants. All objections would be reserved.

11 After that deposition, then all defendants could
12 ask whatever questions they wanted to that weren't
13 repetitive concerning asbestos. We did that in order to
14 accommodate all the parties. Then the talc defendants
15 were to begin their questioning. And there is a clay
16 component that is minor that won't take very much time.
17 So that original deposition canceled because the case
18 was settled, then the deposition commenced. It
19 commenced, oh, between 10:00 and 11:00. I am not sure
20 of the exact time. And that continued all day yesterday
21 until 5:00. We commenced this morning again at 10:00.

22 Yesterday we advised them early that Dr. Castleman
23 had received this invitation just a few days before the
24 deposition to appear with the EPA. This is a matter
25 he's been involved in for some period of time, and 40 or

1 50 percent of his time is spent in public service, and
2 he's a part of this. I believe it's 40 to 50. Is that
3 correct, Dr. Castleman?

4 So this is a matter that is a very serious concern
5 because it involves a proclamation about asbestos
6 and recommendations concerning its future use in the
7 United States of America. And he's been the point man
8 for a group that has been pushing this matter for some
9 period of time. So this is the second day that we
10 generally agree on for all the experts.

11 As you understand, we have to give them an
12 estimate of time, and some of these experts in asbestos
13 cases are called all over the country, and are involved
14 in many lawsuits. So we agreed to come back in tomorrow
15 morning and give them the half a day they would be
16 losing by his taking off this afternoon. And we felt
17 that was fair.

18 And we have tried to shorten the deposition
19 by agreeing to let them adopt and incorporate certain
20 portions of depositions regarding his qualifications,
21 possible bias, income, so that they wouldn't have to ask
22 any questions concerning that.

23 The asbestos defendants have his book, many of
24 them have been involved in litigation with him before
25 and have documents. In the spirit of cooperation we

1 have even provided them today a box of over 400
2 documents to be copied. We think we have been in full
3 compliance with the subpoena. The only problem is
4 taking off the half day so he can fulfill a prior
5 obligation, something he's been involved in for some
6 period of time, which we agreed to make up tomorrow.

7 Now, I understand that they are going to say,
8 Well, we didn't agree to a two day deposition. No, they
9 didn't agree to a two day deposition, but we have agreed
10 to a two day estimate of time, and we have given that
11 information to our experts to expect to be deposed two
12 days. That is our understanding from our conversations
13 with Mr. Hinkle, who's been appointed, as I understand,
14 as lead counsel to set up and schedule and coordinate
15 all the depositions of these experts.

16 MR. HINKLE: Your Honor, this is Mike Hinkle.
17 Part of the problem here is that, you know, that
18 Dr. Castleman, of course, if he's got to be there at
19 this deal, nobody told us about it until yesterday, so
20 now all of our clients are going to be expected to pick
21 up the cost of us waiting another day, and another night
22 of expense here for us. And we understand that Dr.
23 Castleman learned about this last Thursday or Friday,
24 and we didn't know a thing about it until we arrived
25 here yesterday morning. So it really isn't fair, and

1 we're not unsympathetic to his desire to be elsewhere,
2 but it's really not fair for our clients to have to pick
3 up the cost in order for him to make this hearing.

4 Also, let me just respond to a couple of things.
5 I have never told anyone that we would limit these
6 depositions to two days.

7 MR. HAYS: And I never stated that.

8 MR. HINKLE: I know, but I want it very clear
9 that Mr. Norman attempted to get us to agree to a
10 limitation on expert depositions, and I was not willing
11 to do that, and I never intended to suggest to anybody
12 that we were going to limit these to two days. And so
13 for a counsel to come in and say that we, you know, you
14 have got no complaint because we're going to give you
15 two days is not really fair, because that was not our
16 deal.

17 MR. HAYS: Your Honor, let me respond to that.
18 This subpoena, as I read it, has nothing to do with
19 asbestos. It says, "Documents relating to talc" in that
20 paragraph three that I have objected to, except as to --
21 Well, there is something in the last paragraph, and I
22 will have to retract that. He stuck in "asbestos, talc,
23 soapstone and clay". So I will retract that. The first
24 paragraph taketh away, the fourth -- fifth paragraph on
25 the last page giveth back. I apologize for that.

1 But the point is, they have deposed this gentleman
2 many, many times. They have his book sitting on the
3 table. They have a multitude of documents that they
4 have accumulated over the past. In fact, at one time it
5 was discussed that the asbestos people might not even
6 appear because he's not changing his testimony in regard
7 to anything over the asbestos so far as I know, except
8 maybe some recent articles in the past few years, and
9 they can ask him about that. But they haven't asked
10 that.

11 They spent a lot of time just talking about a
12 Mr. Edholm who was a researcher that collected their
13 articles for him. I don't think the time has been
14 efficiently utilized. They haven't gone into the
15 substance of the matter, as I see it, and I think the
16 continuation of the deposition over until tomorrow, I
17 doubt that they will even complete it when they are
18 given their half day. I doubt that they will ever say
19 they have completed this deposition the way they are
20 approaching it at this point.

21 MS. SIEGEL: Your Honor, I have a couple of points
22 in response to Mr. Hays.

23 First of all, Mr. Hays feels that we are
24 conducting this deposition in an oppressive way, or
25 under any of the parts of the federal rules which would

1 allow him to come in and terminate the deposition and
2 seek relief from the Court, he may do so. Thus far,
3 there has been no requests to do that.

4 Dr. Castleman, with regard to this EPA hearing, is
5 not serving in any official capacity, has not been
6 ordered to be present there, he desires to be present
7 there.

8 Well, somebody pointed out it's not a hearing. I
9 don't know exactly what the nature of this announcement
10 is that the EPA intends to make. In other words, he
11 just simply desires to be present there.

12 The subpoena and the notice that was served says
13 that this deposition will continue from day-to-day, the
14 notice says from day-to-day until completed. There has
15 been no agreement that this would only take place for a
16 period of two days.

17 In an effort to work out an agreement with the
18 plaintiff, we agreed to allow this other deposition to
19 go forward yesterday morning which ended up eating up
20 several hours of time because it did not occur. And
21 there was never any agreement that we would adopt the
22 videotape as part of this deposition to my knowledge.

23 MR. HAYS: Not the videotape, the transcript of
24 that deposition.

25 MS. SIEGEL: Either one.

1 MR. HAYS: Yes, there was an agreement, as I
2 understood it.

3 MR. HINKLE: Well, that is immaterial, because
4 that didn't happen. Okay. So that is not an issue
5 here.

6 The thing about it is, Judge --

7 THE MAGISTRATE: Who have I got here?

8 MR. HINKLE: This is Mike Hinkle.

9 THE MAGISTRATE: You have had Mr. Castleman,
10 or Dr. Castleman for a day?

11 MR. HINKLE: Yes.

12 THE MAGISTRATE: And you are going to have him for
13 the remainder of today until 1:30 or so?

14 MR. HINKLE: Or thereabouts, yes.

15 THE MAGISTRATE: And he is willing to come back
16 tomorrow?

17 MS. SIEGEL: For half a day.

18 THE MAGISTRATE: Which half are we talking about?

19 MS. SIEGEL: In the morning, for two hours, from
20 10:00 to 12:00, for three hours.

21 MR. HAYS: 9:00 til 12:00.

22 MS. SIEGEL: I was cut off, and there is one other
23 thing I think is very important for you to consider, and
24 that is that Dr. Castleman has never testified with
25 regard to talc before. And while he may have

1 publications that relate to asbestos, the area of
2 inquiry regarding his knowledge of talc and the
3 scientific development of the hazards associated with
4 talc is yet defined. And it may take us several days to
5 get through that area, as did the first deposition
6 relating to asbestos. Now, he's given depositions in
7 that regard numerous times, and the lawyers that
8 represent asbestos defendants here may want to inquire
9 further, but the area of inhalation of talc is yet
10 untapped.

11 MR. HAYS: May it please the Court, yesterday we
12 requested the talc defendants to go forward early in the
13 deposition. Some of them weren't here, we knew, but
14 some of them were here. And in fact, the lead counsel
15 yesterday did go into the talc articles for
16 identification, but also extended that to things like I
17 believe definitions of talc. So there has been
18 some deposition concerning talc. They could have
19 continued that, and at our request they did do some,
20 I suppose, but they could have been doing talc all
21 along.

22 And we had one -- we had one defendant yesterday
23 say, "I am not going to be precluded in my examination.
24 My examination alone will take eight hours." So the
25 fact that we continue this a half a day isn't really

1 going to affect their being over here one other night,
2 because one of the attorneys said he was going to depose
3 him for eight hours, and that is after the lead counsel
4 on asbestos resumes his questioning.

5 So they are planning on doing a marathon
6 deposition here, and I bet you that if we would give
7 them two more days even, they would end up -- which we
8 cannot do, but they would ask for a continuance and
9 not complete the deposition based upon what they're
10 saying.

11 MR. CROSBY: Your Honor, I am Jim Crosby. I
12 represent one of the asbestos producers.

13 Just for purposes of letting Your Honor know,
14 the witness brought today some items that we had
15 requested dealing with particular companies, and some
16 opinions that he has relating to asbestos. I have
17 deposed this witness in the past and cross-examined him
18 in the past in courtrooms. I have reviewed briefly that
19 box of materials, and in that box of materials now are
20 a considerable number of documents and articles and
21 memorandum that I had not seen or heard this witness
22 testify about at any time prior to today. So the scope
23 of the deposition is pretty broad, and what they
24 tendered this witness for is a broad subject that
25 requires a great deal of discovery.

1 We allowed the talc people to go in between our
2 examination, and plaintiff's counsel has agreed that we
3 can come back. But it's an involved and tedious process
4 with lots of documents and lots of medical and
5 scientific literature that takes quite a while to
6 explore.

7 MR. HAYS: May it please the Court, this
8 gentleman -- Dr. Castleman has been deposed over 60
9 times since 1979, and there are transcripts on
10 over 80 trials, and his testimony concerns
11 history of knowledge concerning asbestos and talc, and
12 to a small degree clay. You know, they have got the
13 book on the man, they have had it for a long time, and I
14 just think this is an exercise in using time that should
15 be used otherwise.

16 MR. HINKLE: Your Honor, this is Mike Hinkle
17 again. I am just going to make one other statement
18 here. That this doctor has brought with him 80 or
19 approximately 80 or more articles dealing with talc.
20 We have never seen the bulk of these. We did not get
21 copies of those until last night about 7:00, and so we
22 have never had an opportunity to review these documents
23 and question this witness about it in the history.

24 He's never testified in a talc case. So this is
25 the first time that he's ever been placed under oath

1 and questioned concerning his expertise in talc, and we
2 want to make sure that we get it done this time.

3 We have told counsel for the plaintiff that we're
4 going to try to fix it where we don't have to keep
5 running back here and taking additional depositions for
6 every plaintiff. So what we're trying to do here is in
7 the talc context, and I am not going to speak to
8 asbestos, I don't know what all they need to ask him,
9 but I do know that we have got an awful lot of articles
10 about talc that nobody here has ever seen before.

11 With that, I think that it's unfair for the
12 witness to say that I am only going to allot you so much
13 time, and then to just break it off, even though he's
14 got a subpoena served on him. And there was no
15 objection and no notice to us that he was going to
16 bellyache about the amount of time that he was spending.

17 MR. HAYS: Your Honor, I sent a letter to
18 Mr. Hinkle telling him we were going to object to the
19 subpoena before we left town, and I also filed
20 objections to the subpoena. And Dr. Castleman said he
21 didn't have an attorney representing him, and then later
22 I asked him if he adopted what I filed in that subpoena,
23 and he said yes. And I think that subpoena is
24 over broad. But we have responded, we have given them
25 tons of documents, now they are using that as a basis

1 for extending the deposition.

2 MR. HINKLE: We're not bellyaching about the items
3 presented. What were talking here is about the
4 time, that is the issue here.

5 MR. HAYS: So the more we give them the longer it
6 takes. And we need some guidance.

7 THE MAGISTRATE: Why are we cutting this off at
8 half a day tomorrow?

9 MR. HAYS: Sir?

10 THE MAGISTRATE: Why are we cutting this off
11 at half a day tomorrow?

12 MS. SIEGEL: The testimony from the witness
13 yesterday was that he has other important things to take
14 care of in his life, and that is pretty much the reason
15 why.

16 THE MAGISTRATE: Mr. Hays, can you enlighten me
17 any on that?

18 MR. HAYS: I can just -- No, sir. He just had
19 business plans, as I understand it.

20 Dr. Castleman, can you help me on that?

21 THE WITNESS: Yes. Good morning, Your Honor.

22 MR. HAYS: Can you hear Dr. Castleman from there,
23 Your Honor?

24 THE MAGISTRATE: Yes, I can.

25 MR. HAYS: Is it all right if he speaks to you?

1 THE MAGISTRATE: Yes.

2 MR. HAYS: Excuse us. There is a squad car going
3 by or ambulance. It's making a lot of noise here.

4 THE WITNESS: Your Honor, I am going to be going
5 out of the country later next week. I have other
6 obligations in other work I am doing. I am involved in
7 international work in the field of occupational and
8 environmental health. I am also involved in this
9 federal rule making regarding the EPA's proposed band of
10 asbestos consumption of which they plan to announce at
11 this time. And I need some time in my life to be able
12 to take care of these and other personal matters as
13 well as business matters before I go away.

14 I am going to be out of the country for about
15 four weeks. And I really do see that if I -- I made
16 myself available for deposition between now and the time
17 that I am leaving the United States, in all likelihood
18 I think that these folks would still be here asking me
19 questions straight through next week about the various
20 documents, boxes of documents, about 50 pounds worth, I
21 think, that I have so far brought in, most of which has
22 been the subject of repeated discussion in the asbestos
23 litigation over the past ten years.

24 The talc stuff is new, and I have attempted to
25 respond to questions on that. If we can't finish as of

1 mid-day tomorrow, I supposed if you consider it
2 necessary, the deposition will just have to be resumed
3 when I get back in the United States in August or in
4 September sometime.

5 THE MAGISTRATE: Well, these cases are set for
6 trial in August, and they will go in August.

7 MR. HAYS: No, sir. These are the January trials.

8 THE MAGISTRATE: January cases?

9 MR. HAYS: Yes, they are the January cases.

10 MS. SIEGEL: But that does put us into our
11 discovery cutoff, however.

12 MR. HINKLE: And nobody told us this, Judge.
13 This is the problem we're having. We come in here after
14 all these lawyers traveling a thousand miles and
15 believing that we have got a subpoena that will be
16 binding on the witness, and an agreement with
17 plaintiff's counsel that he will be here, and after
18 doing all this we find out that we're not going to be
19 able to finish.

20 MR. HAYS: Your Honor, as far as that one days
21 time, the attorneys did not show up until maybe 12:00,
22 some of the talc attorneys, so they did not -- because
23 the video deposition was going to take place.

24 MR. HINKLE: Jim, that is not fair.

25 MR. HAYS: So really there is really no loss on

1 that from that standpoint.

2 MR. HINKLE: That is not fair. I agreed to that
3 as an accommodation to you, and it's not fair now for
4 you to use that as some kind of an argument as to why
5 this witness ought to be able to leave.

6 MR. HAYS: No. I am just talking about your extra
7 day, extra half day you're talking about.

8 Well, Your Honor we're sorry to take up your time
9 with this matter, but it is something of concern. I
10 think we need to have your guidance on it.

11 THE MAGISTRATE: Well, I can go one or two ways
12 here, and of course my concern is trying to be fair to
13 all the parties. We have Dr. Castleman here who's been
14 listed as an expert witness in this case or in these
15 cases. And of course, we have a new area as to talc
16 here. I think these defendants are entitled to fully
17 examine Dr. Castleman as to the talc area.

18 MR. HAYS: Yes, sir.

19 THE MAGISTRATE: How many lawyers do I have there
20 right now?

21 MS. SIEGEL: Eighteen to 20.

22 THE MAGISTRATE: Having served a subpoena having
23 20 people travel to -- where are we, New York?

24 MS. SIEGEL: Baltimore, Maryland.

25 THE MAGISTRATE: Baltimore, and then have the

1 witness take off, does not sit well, certainly to
2 announce this after everyone has arrived. It's not
3 the way to proceed.

4 MR. HAYS: I had no notice of it until I got here
5 for the deposition, Your Honor, and it was reported to
6 them as soon as possible.

7 THE MAGISTRATE: On the other hand, I certainly
8 don't want to be oppressive to any witness, including
9 Dr. Castleman.

10 MR. HINKLE: Could I propose a compromise, Your
11 Honor?

12 THE MAGISTRATE: Certainly.

13 MR. HINKLE: One way that we might be able to
14 solve this is if Dr. Castleman wants to break off and
15 leave, and the Court thinks that is the way to handle
16 this, then the Court can say that he's not going to
17 testify to anything that was not covered in the
18 deposition. And if they want to limit us to the amount
19 of time that we're going to take with him and he's going
20 to limit us, then it ought to cut both ways, they need
21 to be limited too. And that seems like a fair way to
22 handle it.

23 MR. HAYS: Well, Your Honor, I think that would be
24 very fair from the defendant's standpoint, that is their
25 clients would be certainly in a wonderful position if

1 they could just stop the deposition right now, walk away
2 and say he didn't testify to it, so therefore, he can't
3 present it at trial.

4 We're going to present him in trial concerning
5 those matters they are well aware of from the asbestos
6 standpoint, and should be aware of from the talc
7 standpoint.

8 It surprises me that after two years or close to
9 three years maybe now in litigation, that these talc
10 defendants haven't been down to the library to look up
11 some articles, which I was able to do last night in a
12 couple of hours, I picked up five or six of them myself.
13 So it surprises me that they don't have these talc
14 articles. I just can't buy that frankly. But I don't
15 want to be limited in what I present Dr. Castleman
16 on because they choose not to question him in an area
17 tactically.

18 THE MAGISTRATE: Well, that is fine, if they chose
19 not to question him in an area. But what we're doing
20 here, you have got 20 lawyers sitting out there, and
21 were not providing the witness for an adequate period
22 of time to be questioned.

23 MS. SIEGEL: Your Honor, I think one of the
24 important things to consider here is that this witness
25 is not being ordered to appear in some other

1 jurisdiction or by court order or for any other reason
2 other than his own desire to be elsewhere. And from
3 that perspective, I would urge you to encourage this
4 witness to obey the subpoena, to remain here, and to let
5 us continue and complete this deposition pursuant to the
6 terms of that subpoena instead of being his own judge in
7 this jurisdiction and allowing himself to come and go as
8 he sees fit.

9 MR. HAYS: Well, Your Honor, he's not coming and
10 going.

11 THE MAGISTRATE: The deposition should proceed,
12 and the subpoena should be complied with. And the
13 deposition should proceed through today and through
14 tomorrow.

15 Certainly I would think that by the conclusion
16 of the working day tomorrow the defendants should be
17 finished with this deposition. Three days in my
18 estimation should be sufficient to depose any witness,
19 and we should terminate this deposition then as of 5:00
20 tomorrow. But certainly up through that time.
21 Dr. Castleman should remain available, and this
22 deposition should proceed and be completed.

23 MR. HAYS: Thank you, Your Honor.

24 MS. SIEGEL: Thank you, Your Honor.

25 THE MAGISTRATE: Anything further?

1 MS. SIEGEL: No. Appreciate your time.

2 THE MAGISTRATE: Very well.

3 (Whereupon, the deposition was resumed.)

4 MR. HAYS: Dr. Castleman can't be there to
5 represent the poor people.

6 MR. HOOD: I have asked the court reporter to
7 start noting the time so we can show the Court we're
8 ready to start the deposition. According to my watch
9 it's 11:40, the judge has ruled, and I would like to
10 proceed with the deposition.

11 MR. HAYS: We haven't agreed to go back on the
12 record, but I will agree to go back on the
13 record. And I want us to have an agreement right now
14 that lead counsel and myself agree when we go on the
15 record and off the record. Is that acceptable to
16 everyone?

17 MR. HOOD: If you drop my client from the case, it
18 is.

19 MR. HINKLE: Except that there is going to be
20 times when I am not going to be here.

21 MR. HAYS: Well, whoever occupies the cat bird's
22 seat, as you call it.

23 MR. WAGNER: I think that is reasonable.

24 MR. HAYS: Thank you.

25 MR. CROSBY: Well, let me just state for the

1 record that within certain parameters it's reasonable,
2 but there may be times when there may be descending
3 votes on when we go on and off the record, and everybody
4 here has the obligation to represent their clients. We
5 will continue to try to work with you. For example, we
6 still have to make our own objections for each of our
7 clients since you would not allow an objection by one
8 defendant to stand for all.

9 MR. HAYS: Are you renewing that request now?

10 MR. CROSBY: Whatever you want to do, Mr. Hays,
11 but I mean, I don't think that I am being unreasonable
12 in light of your position with respect to certain
13 matters.

14 MR. HAYS: I don't believe that we have taken
15 up much time with objections. What are they going to
16 do, object to lead counsel's questions?

17 MR. CROSBY: I may. I certainly wish to reserve
18 that right. I am here representing a client.

19 MR. HAYS: Well, some people may not agree to do
20 that. He's not going to object to his own questions.

21 MR. CROSBY: Let's go to work.

22 MR. HAYS: So you're going to have to object,
23 aren't you? It doesn't make sense, does it?

24 MR. CROSBY: The witness has returned. If we may
25 proceed, I would think we should do that.

1 Q. (By Mr. Hinkle) Dr. Castleman, when we left off
2 the questioning, you had Exhibit 22 in front of you to help you
3 tell us what subcategories of talc we may be talking about.

4 A. Yes.

5 Q. What are they?

6 A. Well, the mineral talc is defined here by its
7 formula.

8 Q. Well, I don't want the formula. I want to know
9 what the subcategories of talc are. We have talked generally
10 about pure talc and industrial grade talc. Are there
11 recognized subcategories within the rubric of talc that we can
12 talk about?

13 A. Well, I don't know that you can say they are so
14 distinctly recognized. As the authors here say "Variations in
15 the composition of talc used in industries are extreme."

16 And they mention that the talcs involved may contain
17 minerals, the most prominent minerals they say which may
18 accompany talc as it occurs in nature are serpentine, dolomite
19 and tremolite. So those are the three listed here as minerals
20 that may accompany talc as it naturally occurs, and which would
21 be present in the talcs that are used in the industry.

22 Q. All right. Do I understand then, that those are
23 the only subcategories of talc that you as an expert recognize?

24 A. I don't say they are subcategories of talc. I
25 think that that is a misunderstanding. That there are

1 mineralogical ingredients that are found, as well as the
2 hydrous magnesium silicate that mineralogists refer to when
3 they mean pure talc.

4 Q. Listen carefully to my question, Dr. Castleman. I
5 would like to know from you, being the expert in this field,
6 what are the recognized subcategories of talc that have been
7 dealt with in the medical literature if you can tell me?

8 MR. HAYS: Assuming that there are such
9 categories.

10 Q. (By Mr. Hinkle) If you don't know or don't
11 believe there are such categories, you can so state.

12 A. I just don't think that the question lends itself
13 to an answer. There are all kinds of talcs that are mined in
14 different places, they contain various quantities of these
15 other types of materials, as well as materials which are
16 perhaps not as prominent in talc deposits.

17 Q. Do you know whether or not talcs are
18 subcategorized according to their form, do you know?

19 A. I really don't know about the jargon of
20 mineralogists and talc vendors in this regard, although there
21 may well be different types of grades and standards that have
22 been arrived at in the industry regarding physical properties
23 and constituents of the various talcs that are sold.

24 Q. Dr. Castleman, you have told us that you are not
25 an expert in mineralogy. Is that true?

1 A. That is true.

2 Q. I am not asking you about anything that is outside
3 the area of the expertise that you have claimed in this case.
4 You have claimed to be an expert in the development of medical
5 knowledge concerning the hazards of talc; right, among others?

6 A. As reported in the scientific literature, yes.

7 Q. Now, as reported in the scientific literature,
8 Dr. Castleman, do the authors, do the scientists categorize
9 talc according to its form, or do you know?

10 A. I don't see clear cut categories emerging in the
11 scientific literature, although certainly some of the writers
12 do refer to tremolitic talc, and there are what you might call
13 categories, but it's not clear cut. It's not as clear cut, for
14 example, as the mineralogical varieties of asbestos, in the
15 literature on asbestos disease where you are dealing with,
16 relatively speaking, more pure materials, and not mixtures of
17 this kind.

18 Q. When you use the term "tremolitic talc", you are
19 talking about talc that is categorized by reason of its
20 content; correct?

21 A. Yes.

22 Q. My narrow question is: Are you aware in the
23 medical literature of any categorization of talc by virtue of
24 its form?

25 A. You mean its morphology?

1 Q. Well, morphology is a different question, but
2 let's ask that one. Are you aware of any subcategorization
3 dealt with in the medical literature concerning different
4 subcategories of talc by reason of its morphology?

5 A. In a sense that some of the authors say that
6 fibrous talcs are different in their biologic action or more
7 severe in their biologic action than non-fibrous talcs. This
8 is generally speaking in the more recent literature, not in the
9 earliest articles.

10 Q. So you recognize a distinction in medical
11 literature between fibrous talc and none fibrous talc?

12 A. I recognize that there are different authors who
13 say various things, and some of these authors have made
14 distinctions of that kind. But it's -- let's not speak of the
15 medical literature as a uniform, single body of things. It's a
16 diverse collection of things that were put into print over a
17 period of decades, and some of the authors made comments of
18 that type, and some of them did not.

19 Q. And all we can ask you now are the matters that
20 appear in this medical literature, and I am not asking for
21 everything that everyone says. I want to know what basically
22 we can glean from this body of literature. Okay?

23 And you tell me now that somewhere some authors deal
24 with a difference between fibrous talc and non-fibrous talc,
25 you have seen that distinction made?

1 A. In some cases, yes.

2 Q. Have you seen any other distinction made with
3 regard to subcategories of talc apart from the ones you have
4 told us about?

5 A. I don't think so.

6 Q. All right.

7 A. I mean the things I told you about since you
8 started questioning me yesterday.

9 Q. Serpentine, dolomite and tremolite are categories
10 based on content and fibrous and non-fibrous you see as
11 distinctions based on form. Would you agree with that?

12 A. Yes. Again, the minerals you have mentioned are
13 things that are present in varying quantities in different
14 types of talcs as it's reported in the literature.

15 Q. All right.

16 A. I hesitate to say that they are different types of
17 talc. But they are -- there are different compositions of
18 industrial talcs that contain varying quantities of those
19 things.

20 Q. Doctor, all I am asking you now, I'm not asking
21 you to take the position as to whether it's true, or not true,
22 or accurate or not accurate. I am just asking you what is in
23 the medical literature.

24 A. Fine.

25 Q. Now, do you recognize any other -- have you seen,

1 dealt with in the medical literature any other subcategories of
2 talc apart from the ones you have told us?

3 A. Nothing comes to mind.

4 Q. All right.

5 A. There may be other things in here, but nothing
6 comes to mind at this time.

7 Q. Now, are you familiar, do you see dealt with in
8 the medical literature any epidemiological studies that relate
9 to the effect of fibrous talc on the lungs?

10 A. Yes.

11 Q. When?

12 You have an exhibit in front you of. What exhibit is
13 that?

14 A. I am looking at No. 15.

15 Q. Are you telling us Exhibit No. 15 is an
16 epidemiological study dealing with the effects of fibrous talc
17 on the lungs?

18 A. Well, they use the term tremolitic talc, or they
19 mention that talc tremolite is involved, but they talk about
20 not just the current study, but earlier work.

21 Q. Does Exhibit No. 15 -- and incidently, identify
22 that for us, please.

23 A. This is a study by Dreessen, 1935 Public Health
24 Report.

25 Q. Is that an epidemiological study?

1 A. It is an epidemiological study.

2 Q. What are Dreessen's conclusions with regard to the
3 affects of fibrous talc on the lungs?

4 A. He says that Georgia Talc appears to be more
5 injurious than tremolite talc. So this is a study that appears
6 to say that talc that doesn't have tremolite that is found in
7 Georgia appears, according to the author at this time to be
8 more harmful.

9 Q. All right. Now, are you taking a position,
10 Dr. Castleman, one way or the other as to whether or not the
11 findings in this article are correct?

12 A. No.

13 Q. All right. Now, does -- Well, let me just ask the
14 broad category. Are you taking the position that the findings
15 of any of these articles that we have talked about and have
16 made exhibits, are you taking a position as to the accuracy of
17 any of these articles?

18 A. Well, I am not here to testify as to the truth of
19 the matters reported in the articles. I am testifying as to
20 the availability of the reports themselves, and the logical
21 inferences that might be drawn by someone, say, in the talc
22 business having access to such reports.

23 Q. Now, the exhibit that you just told us about
24 indicates that the higher the tremolitic content of talc the
25 less dangerous it is. Would that be a reasonable inference

1 from the article you just cited?

2 A. This particular article says that, "Georgia Talc
3 appears to be more injurious than tremolite talc." And they
4 say, "Georgia Talc contains only traces of free silica." So I
5 am not sure if they understand or have even a theory as to why
6 they find more problems with Georgia Talc than they found with
7 the stuff they refer to as tremolite talc. And I am also not
8 clear, and I am not sure that this article makes clear the
9 extent of fibers that were found in the tremolite talc they
10 refer to.

11 Q. So this particular article, I guess, would lead to
12 either confusing, inaccurate or incomplete conclusions. Would
13 you agree with that?

14 A. I think this article would lead to the conclusion
15 that you can develop pneumoconiosis from some types of talc,
16 and just what it is in terms of a detailed mechanism of the
17 pneumoconiosis was somewhat obscure at the time that this was
18 reported.

19 Q. Does this particular article deal with disability
20 at all?

21 A. I don't believe that they found -- Well, let me
22 see. They did find, I believe they did find disability. They
23 had eight individuals who had pneumoconiosis grades two and
24 three. And I don't see specific discussions of it in terms of
25 disability.

1 Q. Have you followed the treatment of Dreessen's
2 article in subsequent literature?

3 A. I have seen it referred to in subsequent
4 literature.

5 Q. Do you know what the subsequent literature says in
6 regard to what Dreessen finds as to disability associated with
7 inhalation of talc?

8 A. You mean what other people inferred from reading
9 this?

10 Q. Yes. Limited to the disability question.

11 A. I think that at least one of the articles that I
12 have seen, I think one of the articles inferred that there was
13 disability, and I think there may have been other articles that
14 inferred that -- Well, I am not sure. I don't think that
15 the -- without knowing which article you are referring to, it's
16 a little hard to answer the question.

17 Q. Okay. As we sit here today you are not able to
18 tell us how Dreessen's conclusions have been dealt with by
19 subsequent authors on the question of disability?

20 A. I know that this was cited and -- but I don't have
21 a perfect recollection of what each of the subsequent authors
22 said or did not say about Dreessen's report.

23 Q. I am not asking for a perfect recollection,
24 Dr. Castleman. If you can remember in substance what was said,
25 that will do.

1 A. Well, I seem to remember one of them saying that
2 he found that there was disability in people with grade two and
3 grade three pneumoconiosis, but I could be wrong about that.
4 That is just kind of an unusual question asking me what one
5 author had to say about another author's writing. But I think
6 that is what somebody said, and if pressed at some point today,
7 maybe we will see a little bit more about that when we go
8 through these other articles.

9 Q. Dr. Castleman, isn't that one of the ways that we
10 decide how a particular publication is received in the medical
11 community, by seeing what subsequent authors have to say about
12 that?

13 A. Yes, that's right.

14 Q. Are you able to say as you sit here today how
15 Dreessen's article was received by subsequent authors?

16 A. I would say that generally it was received as a
17 sign that talc might well cause lung damage.

18 Q. Would you agree?

19 A. And it was so cited.

20 Q. Would you agree that it also says that some talcs
21 are more dangerous than others?

22 A. It definitely say that. There is no question.
23 That is explicit, and we covered that.

24 Q. Do you know which authors have subsequently
25 accepted that point of view?

1 A. There are plenty of authors here who have said
2 that there seems to be a variability in the extent of disease
3 that is reported. I think ever since --

4 Q. All I want to know, Dr. Castleman, is are you able
5 to say which of these authors have accepted the conclusions
6 reached by Dr. Dreessen?

7 A. Well, what conclusions? That there is variability
8 in the extent of damage that the different types of talc may
9 cause to different people.

10 Q. Let's start with this, that you say that
11 Dr. Dreessen concludes that inhalation of talc can cause
12 disability; correct?

13 A. Well, Dreessen I don't think actually uses that
14 term. He says he found grades two and three pneumoconiosis in
15 people that he examined. I don't think he characterizes it
16 using the word disability. So I am at a loss to tell you
17 something that Dreessen himself didn't say explicitly.

18 Q. Let me frame the question this way then. In
19 reviewing the article on this Exhibit 15 by Dr. Dreessen, does
20 he discuss in any terms whether or not inhalation of talc will
21 result in functional disability?

22 A. Well, the way I read it he did find functional
23 disability. He said, "There were eight cases--" on Page 138,
24 "--showing definite symptoms of the disease, such as dyspnea,
25 cough, chest pain, rales and other abnormal chest findings,

1 clubbing of the fingers, and roentgenologic manifestations of
2 nodular or nodular conglomerate types of fibrosis, and more or
3 less diaphragmatic fixation. Considering all clinical and
4 roentgenological findings together, these eight cases were
5 diagnosed pneumoconiosis two and three."

6 Q. And so your reading of this article says
7 Dr. Dreessen concludes that you can in fact suffer some
8 functional impairment by reason of inhalation of talc?

9 A. Yes. I mean I read those sentences to mean that
10 your lungs have been damaged.

11 Q. All right.

12 A. And that those are evidence, various evidence of
13 lung damage.

14 Q. All right. Now, Dr. Dreessen makes a distinction
15 between Georgia Talc and tremolitic talc; right?

16 A. Yes, he does.

17 Q. And he says that Georgia Talc in his view is more
18 dangerous; right?

19 A. Yes, he does.

20 Q. Does he says whether or not there is any tremolite
21 in Georgia Talc?

22 A. Yes. He says there was one, referring to the
23 petrographic analysis on Page 142, he says, "Georgia Talc
24 contains only traces of free silica." And then it goes on to
25 say "The amount of tremolite, about ten percent found by

1 petrographic analysis averaged one-fourth the amount reported
2 in the previous study." And previous was a study of what he
3 calls tremolite talc. So this apparently also has tremolite in
4 it, but it has less tremolite than Georgia Talc.

5 Q. All right. So Dr. Dreessen says that a talc with
6 only traces of free silica and less tremolite is nevertheless
7 more injurious to the lungs than talc that has a higher
8 quantity of tremolite. That is what he suggests in this
9 article; true?

10 A. Yes, that's correct.

11 Q. Do you agree or disagree with that? Or do you
12 have a position on that?

13 A. All I can say is that is what he reported, and
14 this was an early stage in the development of knowledge about
15 talc. It was the first time really in the '30s that the
16 authorities in Great Britain and in the United States were
17 starting to take a look at significant numbers of talc exposed
18 workers and looking for lung disease.

19 Q. Do you remember my question, Dr. Castleman?

20 A. Well, I can't say that I -- He reports the
21 findings that he had.

22 Q. Do you remember the question that I posed to you,
23 Dr. Castleman?

24 A. I believe your question was do I agree that
25 tremolitic talc is, as Dreessen said, less harmful than the

1 other type of talc.

2 Q. Yes. Do you agree or disagree with Dr. Dreessen's
3 conclusions, or do you have a position?

4 A. I think other people have subsequently reported
5 that tremolitic talc caused more problems. Not just with
6 respect to fibrosis of the lungs, but also with respect to
7 cancer, but that was not reported for a number of years
8 afterward. So it certainly is a mixed picture of the
9 literature as people try to sort out just what it was about
10 these industrial talcs that was of greatest concern.

11 Q. Do you recall the question that I posed,
12 Dr. Castleman?

13 A. I can't disagree with Dreessen's objective report
14 of his own findings.

15 Q. Thank you.

16 A. And at the same time, I have to acknowledge that
17 it seems to be at odds with the subsequent reports that other
18 people wrote on basis of their findings.

19 Q. I am not asking about anybody else in the world
20 but Dr. Castleman. And I want to know, does Dr. Castleman
21 agree, disagree or are you neutral with regard to
22 Dr. Dreessen's findings?

23 A. I can only conclude that Dreessen is truly
24 reporting what he found and believed to be the case at the time
25 he conducted his study.

1 Q. I am asking about his conclusions, the conclusions
2 that he draws?

3 A. I think that the conclusions that he draws are not
4 consistant with modern thinking on the subject of tremolitic,
5 or particularly fibrous talcs compared to non-fibrous talcs.

6 Q. Dr. Castleman, I am not asking about anybody
7 else's thinking. I am not asking about modern thinking. I am
8 asking about Dr. Castleman's thinking. And how does Dr.
9 Castleman line up with Dr. Dreessen's conclusions? Do you
10 agree with him? Do you disagree with him? Or do you have no
11 opinion? That's all I want to know.

12 A. I just don't know how to answer that question.

13 Q. Well, I could give some suggestions. You can say,
14 yes, I agree with him; you can say, no, I don't agree with him;
15 or you can say, I don't have a position on that.

16 A. Dreessen was probably as competent as anybody who
17 worked for the U.S. Government in the area of pneumoconiosis
18 research in the 1930s. And I don't doubt that Dreessen found
19 what he reported.

20 Q. I am not asking --

21 A. At the same time subsequent authors have written
22 different things.

23 Dreessen doesn't say anything about the percent of
24 fibers that were in what he calls tremolitic and less
25 tremolitic talc. And so there is missing information here

1 which it's easy to see in the light of more recent knowledge
2 that Dreessen hadn't quite focused in on. There are just --
3 there is incomplete information on the basis of which for me to
4 give you a simple answer, much as I might like to give you a
5 simple answer to your question.

6 Q. Dr. Castleman, I am entitled to an answer to that
7 question.

8 A. You are entitled to the best answer I can give
9 you, and I am trying to give you that.

10 Q. Well, I think that that question can be answered
11 with yes, I do agree with Dr. Dreessen's conclusions; no, I do
12 not agree with Dr. Dreessen's conclusions; or I have no
13 position in regard to Dr. Dreessen's conclusions. I'm entitled
14 to one of those answers.

15 MR. HAYS: He can also say I don't know.

16 MR. HINKLE: He can say I don't know, I'll accept
17 that. Do you know whether you agree with him or not?

18 MR. HAYS: Or you can say I agree in part.

19 MR. HINKLE: That will be fine. And we'll go down
20 the list and find out what you agree with and don't
21 agree with.

22 MR. HAYS: Or he can give you his best answer,
23 and say that is the best I can give you.

24 Q. (By Mr. Hinkle) Well, just answer the question
25 for me, if you would, Dr. Castleman.

1 A. I have. I really have. I am not trying to be
2 evasive. It's just that the question doesn't lend itself to a
3 simple answer.

4 Q. I am going to pose this question to you, Dr.
5 Castleman, and I'm going to expect an answer. And I want you
6 to know that if you do not answer this question, that we are
7 going to seek to get the aid of the court in regard to this,
8 because it's something that we are entitled to have. And the
9 question is this: Having now reviewed Dr. Dreessen's
10 conclusions, do you, Dr. Castleman, agree with his conclusions?
11 Do you disagree with his conclusions? Do you agree in part?
12 Or do you have no position? Where do you stand in regard to
13 Dr. Dreessen's conclusions?

14 A. Well, I agree that he found what he reported that
15 he found. And there appears to be incomplete information on
16 the basis of which one might agree or not agree with the kinds
17 of statements he made.

18 Q. So I take it then that you are saying that you are
19 in no position to agree or disagree either way; correct?

20 MR. HAYS: You are talking about with regard
21 to any statement made in there as to the notice or
22 talking about talc?

23 Q. (By Mr. Hinkle) I am just talking about the
24 conclusions. I have tried with all my heart to limit these
25 questions to the conclusions.

1 A. You mean whether Georgia Talc is more injurious
2 than tremolite talc? That is the conclusion.

3 Q. All right. I'll go along with that. Would you
4 agree with that conclusion? Or not agree with it? Or you have
5 no position on it?

6 A. I am not positive, but I think subsequent events
7 have shown tremolite talc, at least of the kind that is found
8 in up state New York, is more harmful than the Georgia Talc,
9 but I am not positive about that. Again, it's because of the
10 types of terminology he uses here, it's difficult to give you a
11 simple answer. I don't know what he had in his mind when he
12 used these terms, and I don't know the extent of the fibers
13 that were found in the different types of talc that he was
14 referring to.

15 Q. Dr. Castleman, I did not ask you a word about
16 subsequent findings.

17 A. You asked me whether I agree with it.

18 Q. Right. Do you agree or not agree?

19 A. My agreement would be based on what I know, not
20 just what Dreessen reported. I can't put myself back in 1935.
21 If I did, I would agree with everything Dreessen said, because
22 I wouldn't have any basis for disagreeing.

23 Q. Dr. Castleman, whatever you need to think about to
24 tell us how you stand is fine with me. But I have been asking
25 you for the last ten or 15 minutes to take a position with

1 regard to Dr. Dreessen's conclusions.

2 A. If I read this in 1935 I would have no reason but
3 to agree with it.

4 Q. And anyone else --

5 A. Dreessen was an authority at this time in the
6 United States.

7 Q. Would you agree that anyone else reading Dr.
8 Dreessen's article in 1935 would have every reason in the world
9 to believe that that was true?

10 A. Sure.

11 Q. All right. How many people did Dreessen -- what
12 was the population for his study, by the way?

13 A. I believe there were 32 people that he examined in
14 this study.

15 Q. Is that sufficient to qualify as an
16 epidemiological study?

17 A. Yes, in my mind, yes.

18 Q. Are there guidelines in the medical community with
19 regard to the numbers which will qualify as an epidemiological
20 study?

21 A. Not that I am aware of.

22 Q. All right. What industry were these --

23 A. I am sorry. Thirty-two men and four women were
24 employed at the time, and so there may have been 36 people
25 examined.

1 Q. What trade were they involved in?

2 A. They worked in mines and mills.

3 Q. What kind of mines and mills?

4 A. Talc mines and mills.

5 Q. I think you told us earlier there is no discussion
6 at all with regard to the concentrations of exposure; correct?

7 A. In this study I think there were some comments on
8 the concentrations.

9 Q. What were they?

10 A. I am sorry. They at least conducted physical
11 examinations of 66 talc workers and former talc workers. Just
12 by way of correcting the numbers.

13 Q. Fine.

14 A. The exposures they have divided into three classes
15 in terms of how many millions of particles of dust per cubic
16 foot of air.

17 Q. How many millions of particles of dust per cubic
18 foot of air was the least exposure to Dr. Dreessen's subjects?

19 A. Seventeen million.

20 Q. So all of those subjects were exposed to 17 plus
21 million particles of talc per cubic foot in their work
22 environment; right?

23 A. Well, the lowest exposed group was exposed to an
24 average of 17 million, so some of them would have been exposed
25 to less, some of them would have been exposed to more. And in

1 the other two groups they would have all been exposed the more
2 than 17 million.

3 Q. All right. Are you aware of any industry anywhere
4 in the United States from the 1940s on where anybody was
5 exposed to talc in concentrations of 17 million plus particles
6 per cubic foot?

7 A. I think some of these other reports make reference
8 to exposures that high and higher.

9 Q. We will get to those in a minute.

10 A. That is not a real high concentration of dust.

11 Q. Seventeen million particles per cubic foot is not
12 a very high concentration?

13 A. Well, it's not an unusually high concentration
14 when one talks about industrial environments in the 1930s, and
15 dusts generally speaking. Although it would have been regarded
16 as an alarmingly high concentration for dusts such as silicas
17 and asbestos even in the 1930s, it was certainly well within
18 the range of what has been reported as occurring even in the
19 case of asbestos and silica dusts at that time.

20 Q. Is it your testimony then that in the '30s and
21 '40s concentrations of 17 million particles per cubic foot were
22 regarded as safe in talc workers?

23 A. No. I'm just saying that in industries, and your
24 question was, I think your question went to the issue, Wasn't
25 this extraordinarily high concentrations of dust for industrial

1 workers, and I am trying to put it in context. There were
2 plenty of workers exposed to concentrations of different dusts,
3 some of which were recognized as fibrogenic at the time in the
4 1930s which far exceeded 17 million particles per cubic foot.

5 Q. When is the last time that you can think of that
6 there are any documented exposures of levels that high, 17
7 million plus particles per cubic foot, when did that come to a
8 stop?

9 A. I think that sort of thing may still occur. With
10 regard to what kinds of dust are you asking the question?

11 Q. Well, we have been talking about talc.

12 A. I don't really know what kinds of exposures are
13 found in modern times in terms of exposures in workplaces where
14 talc is used.

15 Q. Is the dust in workplaces regulated now?

16 A. Some dust is.

17 Q. And is talc dust regulated?

18 A. I believe talc dust that contains asbestos fibers
19 is regulated. I don't know whether talc dust itself is
20 regulated or not.

21 Q. Do you know whether or not there are any
22 guidelines with regard to what we call nuisance dust?

23 A. Yes. It would presumably be covered under that
24 category if it's not covered under any other category.

25 Q. Well, what are the regulations with regard to

1 concentrations of nuisance dust?

2 A. I don't know off the top of my head. I just don't
3 know. I have seen numbers like 50 million particles per cubic
4 foot. I don't know whether lower levels are accepted or agreed
5 upon in the general nuisance dust.

6 Q. As you sit here today are you aware of whether or
7 not there are regulations dealing with the concentrations of
8 talc dust in the work environment, do you know?

9 A. I don't know there are explicit regulations.

10 Q. When they talk about tremolitic talc in the
11 Dreessen article, give us your working definition of tremolitic
12 talc.

13 A. In Dr. Dreessen's case he said the tremolite talc,
14 the stuff he didn't call tremolitic talc, the Georgia Talc had
15 about ten percent of tremolite by petrographic analysis, and
16 the stuff he did call tremolitic talc was four times that.

17 Q. Forty percent then?

18 A. One would have to conclude about 40 percent
19 tremolite was found in the stuff that Dreessen was referring to
20 when he said tremolitic talc in this 1935 study.

21 Q. Are you aware of any subcategorization of
22 tremolitic fibers by form?

23 A. I have seen literature relating to literature and
24 other kinds of -- well, publicity relating to the controversy
25 of what is a fiber, what is a cleavage fragment, and what's

1 neither of the above with regard to tremolite. So I understand
2 that there is a range of morphology involved with the materials
3 generally classified as tremolite.

4 Q. You say that it's been classified by some as
5 fibrous versus what?

6 A. Well, I understand that there are different types,
7 different forms, different shapes, if you will, of tremolite,
8 and that some tremolite is regarded as fiber shaped in a
9 similar way, that other asbestiform minerals are fiber shaped,
10 long thin fibers. There are other particles of tremolite which
11 are -- may have an aspect ratio of three or five to one, which
12 could be viewed as fibers under such things as the asbestos
13 standards that OSHA has, or other people might argue. And
14 certainly I think the Vanderbilt Talc Company argues that these
15 kinds of things are not asbestos, shouldn't be in any way
16 covered by any standards relating to asbestos, and that they
17 are not in the same category as far as the health hazards they
18 may pose.

19 Q. Do you have a position on that one way or the
20 other?

21 A. My position is that unless these fiber shaped
22 particles can be shown to be less harmful than comparable, or
23 unless a real strong case can be made, that there really is a
24 difference in the harmfulness or lack of harmfulness posed by
25 these materials, but they have to be presumed equally harmful.

1 Q. Do you know whether or not the tremolitic content
2 in the Georgia Talc in Dreessen's article was identical to the
3 tremolitic content in the talc he described as tremolitic?

4 A. Well, I thought I made it clear that he refers to
5 two types of talc, one of which had ten percent tremolite, and
6 one of which had about four times that, and he calls the
7 latter, he calls that tremolite talc.

8 Q. Listen carefully to my question. Do you know
9 whether or not the tremolite, the ten percent tremolite in the
10 Georgia Talc is identical to the 40 percent tremolite in the
11 talc he calls tremolitic, do you know?

12 A. No, I don't.

13 Q. All right.

14 A. In terms of the morphology, for example, the
15 amount of fibers that might be found, no, I don't know.

16 Q. What other epidemiological studies have you seen
17 that deal with the possible hazards of inhalation of fibrous
18 talc?

19 A. Fibrous talc?

20 Q. Yes, sir, that was the question.

21 MR. HAYS: Mike, we might interject here that
22 it's 12:28. Did you want to stop for lunch?

23 MR. HINKLE: No, we can't stop for lunch. We need
24 to press right on and do as much as we can. We will eat
25 whenever he has to leave.

1 MR. HAYS: I think we're entitled to a lunch
2 break.

3 THE WITNESS: I have been instructed by the judge
4 to stay here today, so I am not going to be able to go
5 to Washington.

6 MR. HAYS: He's not going to Washington. We're
7 here for the rest of the day and tomorrow from 9:00 to
8 5:00. You didn't hear that?

9 MR. HINKLE: I possibly misunderstood. That is a
10 pleasant surprise to me, if I have. That being the
11 case, then probably, if everyone agrees --

12 MR. HOOD: Why don't we get a sandwich brought in
13 for the witness?

14 MR. HAYS: Why don't we just take a 45 minute
15 break.

16 MR. HOOD: The problem we found yesterday, it's
17 so hard to find a place to serve us quick. The only
18 person that needs to be taken care of is the witness,
19 and if he will tell us what he wants, we'll take a
20 recess --

21 MR. HAYS: Well, you're not going to control his
22 eating habits, I assure you. We're taking a 45 minute
23 break. If you want to call the magistrate on it because
24 you feel some how it impedes your time we'll do that,
25 but we're going to take a 45 minute break. And I

1 am going to get some things copied for Owens-Corning,
2 so I'm going to be working during this break, you
3 understand?

4 MS. SIEGEL: Can we return at 1:00?

5 MR. HAYS: That is fine.

6 MR. CROSBY: That's a little less than 45 minutes
7 by my watch.

8 MR. HAYS: Yes, let's say 1:15 and we will start
9 exactly at 1:15. Everybody will be here, if they are
10 not here, start anyway.

11 MR. CROSBY: Are you going to copy the OCF file
12 for us?

13 MR. HAYS: That is what I am taking to be copied.
14 I don't know how long it's going to take, because I
15 haven't seen the file.

16 MR. CROSBY: We're just going to use the OCF file
17 itself. And the OI is not much, you might take both of
18 those. And Kinko's can copy the rest of them, we will
19 have enough to ask questions with today if we need them,
20 until Kinko's gets the rest of it back.

21 MR. HAYS: Just so it's understood, I am
22 anticipating a continuance because the documents aren't
23 available, and if we can use the originals for
24 questioning, we don't need to use the copies. So if
25 the copies are gone, I want to talk to the magistrate if

1 we're going to use that as a basis for some sort of
2 continuance.

3 MR. CROSBY: Not planning on doing it. We have
4 made arrangements with a copying company they will stay
5 open tonight and copy these documents so we will have
6 them back in the morning, and if we have the OI and the
7 OCF files, in the event we have questions this
8 afternoon, that will take us to 5:00, and as I
9 understand it we're adjourning at 5:00; is that right?

10 MR. HAYS: Adjourning at 5:00, and the magistrate
11 ordered this deposition to conclude tomorrow at 5:00.

12 MR. CROSBY: We will undertake to do precisely
13 that, Mr. Hays. And I appreciate your assistance.

14 (Whereupon, a lunch break was taken.)

15 MR. CROSBY: Can we let the record reflect that
16 we have just turned the documents that were Exhibits 86
17 to Kinko's Copy Service, and they will return those
18 documents to us in the morning at 9:00, original and two
19 copies. And Mr. Hays has the OI and OCF files getting
20 them copied somewhere, and they will be back, we hope,
21 this afternoon.

22 MR. HAYS: Let the record reflect that we have
23 had some conferences concerning the copying of the
24 documents, and I have asserted that if there is a
25 question in any one's mind about having the copies back,

1 that the originals be retained for the purposes of
2 questioning the witness, and then that they be copied
3 at a later time. We do not want the copying to be a
4 basis of a continuance, and we asserted that before the
5 documents were delivered to Kinko's, and I have been
6 assured that is not going to be a problem. That's my
7 position.

8 MR. CROSBY: We have been assured by Kinko's that
9 they'll be here at 9:00, and assuming they don't have
10 problems, we will go forward at 9:00. One of the
11 attorneys, who is an officer of this court, Mr. Goss,
12 offered to have the copies made and returned here this
13 afternoon, but plaintiff refused, so we have had no
14 choice but to have Kinko's do it. And to expedite
15 matters in order to try to comply with the Court's
16 request we adjourn tomorrow at 5:00 we're going through
17 Kinko's.

18 MR. HAYS: Just to make it absolutely clear,
19 there is no prohibition from using the original
20 documents to do your questioning. Copies are not
21 necessary for you to continue your questioning at any
22 time. And so we did not agree to have the defendant
23 Vermont Talc copy these documents, we think that is
24 probably not a good procedure, and we agreed to work
25 with you in any way to get the copying expedited, and

1 Kinko's has got it, and it looks like they are going to
2 be here tomorrow and all this discussion may be moot.

3 MR. CROSBY: We hope it is. Counsel, just so
4 you'll know, several lawyers are here for several
5 companies, and often I would need some of the files to
6 question the witness that they would need so that they
7 would be prepared. And that is why the copies are
8 necessary, and hopefully to expedite.

9 I suggest we go ahead.

10 Q. (By Mr. Hinkle) Dr. Castleman, let me ask you if
11 you would, please, to summarize the opinions that you intend to
12 offer in the trial of these Oklahoma Tire Worker cases.

13 A. With respect to talc?

14 Q. That would be fine.

15 A. The opinions I will offer are that there is a body
16 of literature to the effect that inhalation of talc, as well as
17 other types of exposures to talc in which people get talc
18 inside -- in their bodies, but primarily by the route of
19 inhalation, that this body of literature is extensive. That
20 this body of literature was in a large part published in the
21 English language. That a lot of this information was published
22 in the United States. And that this body of literature
23 primarily dating from the 1930s forward indicates that people
24 breathing the dust of materials generally identified as talc in
25 the industry had sustained lung damage of various kinds.

1 And reports are -- have a wide range of the extent of
2 damage reported from relatively minimal damage to total
3 disability and death. And that a manufacturer or a seller of
4 industrial talcs, a seller of talc that was mined and sold in
5 the channels of commerce should in my opinion have known that
6 talc was a suspect, at least a suspect cause of lung disease if
7 not a proven cause of lung disease, certainly a very strongly
8 suspect cause of lung damage by the 1950s, if not earlier. And
9 should have taken appropriate steps, and perhaps this goes
10 beyond the type of opinion I would be called upon to render in
11 a court, but that such a manufacturer or seller should have
12 taken appropriate steps to both test and inspect the product
13 for potential hazards through animal studies for example, as
14 well as through medical monitoring of their employees, and that
15 such vendors should also have provided some warning to the
16 users of the talc that they were putting into the channels of
17 commerce where it would be used in industries such as the
18 rubber industry where cases of disease have been reported since
19 the 1930s.

20 Q. You are not an expert on warnings, I take it?

21 A. Well, I haven't made any special studies, I
22 suppose, that would qualify me as an expert on warnings, but I
23 think that when I say a warning, that the warning should be
24 based on what is known about the hazards of the product and
25 couched in language that will be understandable to people who

1 were using the product who don't necessarily have any advanced
2 education or training.

3 Q. I mean in terms of your qualifications, your own,
4 you are not trained in the area of warning design or warning
5 communication, are you?

6 A. No, I am not.

7 Q. And you haven't had any experience in the design
8 of warnings?

9 A. No, I haven't.

10 Q. And --

11 A. Although I have advocated the use of warnings on
12 various products which did not carry warnings, no, I haven't
13 been involved in the intricacies of how such warnings might be
14 designed.

15 Q. Have you done any studies or done any training or
16 had any experience in the question of efficiency or efficacy of
17 warnings?

18 A. No.

19 Q. I asked you earlier today to tell us about
20 epidemiological studies relating to the possible health hazards
21 of fibrous talc, and you referred me to Exhibit 15,
22 Dreessen's article.

23 A. Well, yes, to the extent that they talk about a
24 tremolitic talc, and with the understanding that they did not
25 use designations like fibrous in regard to the tremolite in the

1 talc.

2 Q. Do you read Dr. Dreessen's article as an article
3 dealing with the possible health hazards of exposure to fibrous
4 talc?

5 A. It's just hard to say. I mean, he doesn't say
6 whether it's fibrous or not. And so it's hard for me to go
7 further than the author himself does categorizing materials
8 with regard to whether or not they contain fibers. He does
9 says they contain tremolite, one can infer from this that there
10 could well and probably was some fiber in it, but Dreessen
11 himself doesn't provide that information.

12 Q. Again, I am interested in what you as a
13 bibliographer glean from a reading of this article. When I am
14 asking you whether or not you read this as an authority on
15 the -- as an authority on the possible health hazards of
16 exposure to fibrous talc, you can say that you read it that way
17 or you don't read it that way, or you have no opinion about it.

18 A. I just feel that the article itself provides
19 insufficient information on the basis of which to give you an
20 answer as to how I would read it.

21 Q. You don't know whether it does or not deal with
22 fibrous talc?

23 A. I don't know the extent to which fibers were
24 present in the talc involved, because the authors themselves do
25 not refer to it.

1 Q. Do you know whether any fibers were involved?

2 A. I don't know for sure.

3 Q. Then I want you to listen carefully to the
4 question that I posed to you earlier, and I am going to pose
5 again. In the studies that you have before you or in your
6 review of any materials, have you seen any epidemiological
7 studies which indicate that there are health hazards associated
8 with exposure to fibrous talc?

9 A. Let's get to the next one.

10 Q. Well, let's get to the first one. Evidently you
11 are not satisfied that Exhibit 15 falls within that category;
12 true?

13 A. It may or may not. But it's not absolutely clear
14 from the article. The next article --

15 Q. Just a minute, before we go on. What I want you
16 to tell me about is whether or not in the articles that you
17 have reviewed you find an epidemiological study which relates
18 to dangers allegedly occurring as a result of exposure to
19 fibrous talc. Just tell me whether there are any in there or
20 not.

21 A. Well, I know there are by the time we get to the
22 New York State studies of Kleinfeld and his co-workers.

23 Q. What I want you to do now is thumb through those
24 and find me the earliest epidemiological study there that
25 relates to the alleged hazards associated with exposure to

1 fibrous talc.

2 A. First, this study clearly does deal with that, and
3 it is an epidemiological study.

4 Q. Which study, please?

5 A. Number 24.

6 Q. Exhibit No. 24.

7 A. This is an article of Siegal and his co-workers in
8 1943.

9 Q. Now, what leads you to believe that that
10 particular article deals with the alleged hazards associated
11 with exposure to fibrous talc?

12 A. Under the type of talc involved on Page 15 it says
13 that, "The type of talc produced in St. Lawrence County is of
14 the fibrous variety known as abestine. With it is found
15 tremolite, a similar appearing material occurring in a fibrous
16 or asbestiform state which in the course of time changes over
17 to talc." So the article states.

18 There is also a picture on Page 16 which Figure 1,
19 "Tremolite Talc, Bundle Like Arrangement of Fibers", is the
20 caption. And there are other pictures describing "needle-like
21 fibers" on that page. And so I think it's very clear here that
22 we are dealing with a fibrous talc.

23 The fact that it is an epidemiological study is derived
24 from the fact that they have examined a defined population, in
25 this case, 221 tremolite talc miners and millers. And they

1 found disease in these people including advanced fibrosis in 32
2 men giving an incidence of 14 and a half percent according to
3 the conclusion, No. 4 in summary on Page 28.

4 They further state that this tremolite talc is capable
5 like asbestos, they say, of causing a disabling pneumoconiosis,
6 that is under the heading "Conclusions" on Page 28. So here we
7 have an epidemiological study implicating fibrous talc as a
8 cause of very serious lung disease.

9 Q. The population was 221 workers; is that right?

10 A. That is what is discussed in Summary No. 4, yes.

11 Q. What was the level of concentration of exposure?

12 A. Dust counts are reported under No. 3 on Page 28 as
13 ranging from six to five thousand million particles per cubic
14 foot in mining and in milling from 20 to 250 million particles
15 per cubic foot.

16 Q. So the least concentrated exposure appears to be
17 20 million particles per cubic foot; correct?

18 A. Six million.

19 Q. Look at that again, if you would, please.

20 A. I am looking at it.

21 Q. Do you know whether that is six or 6,000 million?

22 A. I read it as saying six million particles per
23 cubic foot, 5,000 million particles per cubic foot or five
24 billion particles per cubic foot.

25 Q. Would you agree with me that that might also be

1 six billion particles?

2 A. It reads to me as six million. The literal text
3 is "Dust counts in mining range from six to 5,000 million
4 particles per cubic foot." I think it's pretty clear. The
5 lowest count involved are six million particles per cubic foot.

6 Q. So you are pretty satisfied that that is six
7 particles per cubic foot?

8 A. No, six million particles per cubic foot.

9 Q. All right. So you are satisfied that's six
10 million particles per cubic foot?

11 A. That is right.

12 Q. Do you agree with the findings and conclusions a
13 set forth in Mr. Siegal's, Ms. Smith's and Mr. Greenburg's
14 article that we have been discussing, which is Exhibit No. 24?

15 A. I see no reason to doubt their conclusions, if
16 that is what you mean.

17 Q. And you have, I take it, reviewed their review of
18 the literature concerning talc in the body of the article?

19 A. I have looked at it, yes.

20 Q. Do you agree with their review of the literature
21 as it relates to talc which is contained in the body of the
22 article?

23 A. I don't really know in every single detail whether
24 what they are reporting as being in the literature is exactly
25 true. They make reference to articles about talc and in some

1 cases about other things which in some cases I think I may not
2 have even seen. They make reference to an article, for
3 example, Reference 19, which appears in a German publication,
4 and it is about talc. But I haven't actually seen that
5 article, so I don't really know, and I haven't seen certainly
6 the English translation of it. So I don't really know for a
7 fact that their accounts of what that 1938 or '39 article
8 contains is correct. But generally what I do see here comports
9 with what I understand the articles they cite to say.

10 Q. Do you have any reason to quarrel with -- do you
11 have any reason to suspect that these authors would in any way
12 misstate any of the facts that they have set out in the
13 subtitle body, under the subtitle review of literature on the
14 effects of talc dust?

15 A. I don't have any reason to expect that they would
16 have shaded things one way or the other. I would assume that
17 these people approached this -- they were state and government
18 officials that the State Health Department in New York, at
19 least one of them, Greenburg I have heard of, and you know, so
20 I have no reason to question the scientific quality of the
21 report, or its reference to earlier literature.

22 Q. So the answer to my question then is no, you have
23 no reason to believe that they would have misstated anything in
24 there. Is that true?

25 A. Yes. But I mean these things can happen, but I

1 have no reason to believe that it was done intentionally or
2 that it was done out of incompetence based on what I can see
3 they did write.

4 Q. What other epidemiological studies have you
5 reviewed which indicate or which deal with the possible health
6 hazards of exposure to fibrous talc?

7 A. I just put aside the report of Parmeggiani, an I
8 Italian journal, No. 33, because it would take me a little bit
9 of time to try and pour through that and see what the Italian
10 talc, whether it was a fibrous talc, et cetera.

11 Q. You are not, you wouldn't say that an Italian
12 medical journal would be something necessarily that American
13 talc manufacturers would be on notice of, would you?

14 A. Not necessarily, but possible.

15 Q. All right. Go ahead. Tell me --

16 A. The Italian literature is cited in the U.S.
17 literature.

18 Q. Tell me, if you would, please, the next
19 epidemiological study that you can find that deals with the
20 possible health hazards of exposure to fibrous talc.

21 A. You are still asking for an epidemiological study?

22 Q. Yes, sir. We will talk about the other types of
23 studies in a little while.

24 A. I supposed the next one is Exhibit 49. This is an
25 article by Kleinfeld and his co-workers in New York State

1 again, published in 1955 in the AMA Archives of Industrial
2 Health.

3 Q. Exhibit 49?

4 A. Yes. That is the next one. Do you have any
5 questions about it?

6 Q. Yes, I do. Did you give me the date on that
7 exhibit?

8 A. 1955.

9 Q. All right. And what was the type of talc dealt
10 with?

11 A. This is the New York State talc, the fibrous talc
12 that Siegal and co-workers had described. And this is a
13 follow-up study on some of the people that they had examined.

14 Q. How many people were involved in that study?
15 Excuse me. How many subjects were in that study?

16 A. Thirty-two patients. Nineteen had died by the
17 time of follow-up. And four of those causes of death was
18 believed to be due to pulmonary failure associated with talc
19 pneumoconiosis, according to Page 66.

20 Q. Did you tell me the type of fiber again that was
21 involved, the type of talc?

22 A. Tremolitic talc which had been described earlier
23 by Siegal and co-workers according the these authors.

24 Q. What were the conclusions in that article?

25 A. Well, they are reported -- they are called summary

1 and conclusion, and it's more just an accounting of the
2 findings than any conclusive statements.

3 Q. May I see the exhibit, please?

4 A. Sure.

5 Q. Do they not observe in Exhibit No. 49 that there
6 are improvements being made in the workplace which reduce the
7 exposure to talc?

8 A. They did so report. They report that in the 1940s
9 between 1943 and 1948 the talc mines and mill operators had
10 instituted corrective measures, and the corrective measure are
11 at least in general terms enumerated on Page 66 "Measures which
12 were taken to reduce the dust concentrations in workers exposed
13 to the dust in the mining and milling of this material.

14 Q. And do they appear to be successful to some
15 degree, the efforts being made?

16 A. Yes, they do.

17 Q. What is the next epidemiological study? And
18 before we go to that, you might tell us, Dr. Castleman, what is
19 your definition of an epidemiological study?

20 A. In this context it's a study of a defined
21 population of people at risk, and the morbidity or the
22 mortality of that group sometimes with reference to a
23 controlled group, sometimes not.

24 Q. Tell us the next epidemiological study, please.
25 And with this limitation, the next epidemiological study

1 dealing with possible health hazards associated with exposure
2 to fibrous talc.

3 A. I think the next one would be the report in the
4 American Conference of Governmental Industrial Hygienists.

5 Q. Would you give us an exhibit number, please?

6 A. 58, this is 1959. This appears to be from the
7 ACGIH annual meeting in 1959, and the authors are the same
8 folks from the New York Department of Labor, Messite and
9 Kleinfeld and one other individual.

10 Q. All right. What type of talc were they dealing
11 with?

12 A. Same stuff. The New York State fibrous talc.

13 Q. Tremolitic talc?

14 A. Yes.

15 Q. How many subjects were there in that study?

16 A. Well, the St. Lawrence County, overall in two
17 counties they looked at 97 people, and the St. Lawrence County
18 I know we were dealing with fibrous talc, at least that is my
19 recollection from the earlier reports.

20 Q. What were their conclusions in that article?

21 A. Well, at one point they say on Page 70 that "The
22 wet method of drilling may in time eliminate the problem of
23 disabling pneumoconiosis in these talc miners." They also go
24 on to say the absence of pulmonary fibrosis in miners of the
25 Lewis County where a natural form of dust suppression has been

1 provided by the wetness of the rock tends to support this
2 belief."

3 Summary and conclusions on Page 71 says, "Although the
4 incidence of pulmonary talcosis in the miners has not changed
5 appreciably, the severity and the progression of the disease
6 has been diminished. The reduction in the dust exposure in the
7 mines has a lower incidence of pulmonary fibrosis among the
8 talc miners is primarily due to the institution of wet
9 drilling."

10 Q. This adds again, I take it, support to the earlier
11 conclusion that improvements in the mining and milling process
12 are reducing the dangers associated with inhalation of talc?

13 A. Well, reducing the amount inhaled, and therefore
14 extent of the hazard that workers face.

15 Q. As a matter of fact, they suggest there that with
16 the advent of wet drilling they might eliminate talc
17 pneumoconiosis all together?

18 A. I read their exact language. I am not sure that
19 that is a perfectly correct characterization. But anyway,
20 whatever they said is in the record.

21 Q. How does what they said differ from my statement?

22 A. I suppose your characterization is reasonable,
23 looking at it again.

24 Q. Now, do you agree or do you disagree with the
25 conclusions reached by the authors of Exhibit No. 58?

1 A. I think that I can agree with their -- I think I
2 would agree with their conclusions.

3 Q. All right. What is the next article that you find
4 that deals with an epidemiological study related to the
5 possible health hazards associated with exposure to fibrous
6 talc?

7 A. We have gotten a few more articles today. I
8 guess --

9 Q. Excuse me. Before you go on, are these the
10 articles that we have already marked, or are these something we
11 haven't seen before?

12 A. These were marked this morning. I just wanted to
13 see if any of them -- this particular group is not a marked
14 set, but you know the ones I mean, about half a dozen of them
15 that Mr. Hays brought in.

16 Q. Let's get them in front of you. I want to make
17 sure that we cover all this.

18 A. I am trying to keep the chronology straight,
19 that's why this looks like this. The last one I said was 1959.
20 I was just about to mention one in 1964.

21 Q. Exhibit number, please?

22 A. That was No. 61. Let's go back in time to 1959,
23 if you think that would make more sense, if you agree.

24 Q. I am perfectly satisfied with a chronological
25 order. What is the next one in chronological order?

1 A. That appears to be another study by --

2 Q. Exhibit number, please?

3 A. 92.

4 Q. This is one that you really haven't had a chance
5 to look at until just this moment. Is that true?

6 A. That is about right. But this is another study,
7 another report, I should say, on the New York State of talc
8 mining mill workers in St. Lawrence County --

9 Q. Again, this is a tremolitic talc?

10 A. Yes.

11 Q. Who were the authors of that article?

12 A. Kleinfeld, Messite and Readan. Messite is the
13 first author.

14 Q. Do the authors modify the conclusions that they
15 reached in that earlier 1959 study?

16 A. No. I think this is another report in another
17 journal about basically the same material, same data base.

18 Q. All right. So that would have been the 32 talc
19 mine workers that we discussed earlier in Exhibit 49?

20 A. Yes. And this is -- I mean it seems to me the
21 main finding here is that they are keying in on fibrous or
22 tremolitic talc as the more pathogenic in comparison with what
23 they call a non-fibrous variety of talc in another region of
24 New York State.

25 Q. Do they make any statements at all about the

1 alleged danger of exposure to non-fibrous talc?

2 A. They say that the incidence and severity of the
3 talc pneumoconiosis was considerably less where the exposure
4 was to the non-fibrous variety. And I believe elsewhere in the
5 article they indicate that the concentrations of dust counts
6 were comparable.

7 Q. Do they talk about the constitution of the
8 non-fibrous variety of talc?

9 A. I don't see anything on that. The authors of this
10 article are all physicians, and I don't think that they had --
11 they talk about microscopic appearance, the presence or absence
12 of fibers, but --

13 Q. Do they talk about any of the mineralogical
14 components of this non-fibrous talc that they compare?

15 A. I don't think so. Not in this article I don't
16 think they do.

17 Q. What is the next epidemiological study that you
18 find that relates to the alleged or possible health hazards
19 related to the exposure to fibrous talc?

20 A. I don't think that No. 97 qualifies as an
21 epidemiological study.

22 Q. All I want to know now, you don't need to tell me
23 which ones are not, I want to know which ones are.

24 A. Yes.

25 Q. Dr. Castleman, I don't mean to rush you, but as

1 you know, we're on kind of a tight time schedule, and you have
2 been taking a good deal of time from article to article to look
3 through and read. So in order for us to keep with the time
4 table set up by the Court, I am going to ask you to hasten your
5 review, if you can.

6 A. I am hastening it as much as I can. And we are
7 almost through. There won't be many more. I think basically
8 dealing with the reports of Kleinfeld and co-workers again and
9 again, whether each report constitutes an epidemiological study
10 is what's problematic. If you want me to skip Kleinfeld --

11 Q. No. I want you to tell us about every
12 epidemiological study that you have reviewed that deals with
13 the possible health hazards of exposure to fibrous talc.

14 A. I suppose this would qualify as an epidemiological
15 study also. This is from the Journal of Occupational Medicine,
16 No. 62, published in 1965 by Kleinfeld.

17 Q. What's the exhibit, please?

18 A. 62, published by Kleinfeld and co-workers. And
19 here they report on having examined 16 workers.

20 Q. What's the date, please?

21 A. 1965.

22 Q. How many workers?

23 A. Sixteen.

24 Q. What was their trade?

25 A. They were engaged in milling of talc for more than

1 ten years.

2 Q. What was the talc to which they were exposed?

3 A. I believe this is the same stuff we have been
4 talking about, the St. Lawrence County tremolitic talc.

5 Q. Any other kinds of talc?

6 A. I don't believe so. It says on Page 15, "Talc
7 dust to which these individuals were exposed was predominately
8 talc as mixed with tremolite, anthophyllite, serpentine and
9 small amounts of free silica. All the talc workers had a
10 weighted average exposure to talc dust above 20 million
11 particles per cubic foot, the present threshold for talc dust
12 as recommend by the American Conference of Governmental
13 Industrial Hygienists.

14 Q. So anthophyllite and serpentine were also included
15 in the material inhaled?

16 A. Yes.

17 Q. All right. Go ahead.

18 A. I would have to study this a little more carefully
19 to see whether technically it falls in as an epidemiological
20 study or case report. But this is No. 96, it's another study
21 by Kleinfeld and co-workers published in 1964, "Lung Function
22 in Talc Workers". And they do talk about having examined --

23 Q. Again, is this tremolitic talc?

24 A. Talking about nine people exposed to fibrous talc
25 from 13 to 26 years. And also workers exposed to granular

1 talc, two workers. That probably wouldn't be quite an
2 epidemiological study. But again, I would have to look at it
3 more closely.

4 Q. Let me ask you a question about the nine people
5 exposed to fibrous talc were exposed to tremolitic talc; is
6 that right?

7 A. Yes.

8 Q. What were the conclusions with regard to the two
9 workers exposed to quote "granular talc" close quote?

10 A. The abnormalities were more pronounced in the
11 workers exposed to fibrous talc than the workers exposed to
12 granular talc.

13 Q. What abnormalities did they find in the workers
14 exposed to granular talc?

15 A. Their words are "In the majority of instances, the
16 percentage of abnormal values for each parameter of pulmonary
17 function was appreciably greater in those exposed to fibrous
18 talc than those exposed to the granular variety." So
19 specifically the distinction made between the two types of talc
20 and the workers exposed to them is in terms of pulmonary
21 function.

22 Q. Do they say that there is any pulmonary disability
23 to workers exposed, the two workers they looked at exposed to
24 granular talc?

25 A. Let's see. They say, "Predominant symptom in the

1 groups--", referring to both groups of talc exposed workers,
2 "--the predominant symptom is dsypnea." So I read that as
3 meaning that there was disability.

4 Q. Does it say that either of the workers that they
5 looked at that was exposed to granular talc had any pulmonary
6 disability at all? Or is that something that you would just
7 simply infer from the article?

8 A. Well, this is one of the articles that I am seeing
9 carefully for the first time, because it was just brought here
10 this morning. This is one of the late numbered exhibits.

11 Q. By Mr. Hays, by the way; correct?

12 A. Mr. Hays was kind enough to go get it in the
13 library after I gave him the reference citation.

14 Q. When you tell us they had dyspnea, that means
15 what?

16 A. Shortness of breath.

17 Q. Does the article say that there was any pulmonary
18 disability associated with exposure to the granular talc in the
19 two workers they looked at?

20 A. They have --

21 MR. HAYS: I'm sorry. What is dyspnea, by the
22 way? Are we saying that is shortness of breath, or
23 are we saying that is not a lung dysfunction?

24 MR. HINKLE: I didn't say anything like that.

25 THE WITNESS: Let's look further what the authors

1 themselves say. On Page 565 they say, "Since there
2 were only two with symptomatic talcosis in the granular
3 group."

4 Q. (By Mr. Hinkle) How many were looked at in the
5 granular group total?

6 A. I think it was just two people, but the way that
7 sentence reads does make you wonder whether there were more
8 than two.

9 Q. You don't really know how many were in the
10 granular group. Is that true?

11 A. I am pretty sure it was just two people, and it
12 was the twist of the word in that language that makes your eye
13 brows go up and wonder are they talking about two out of a
14 larger group, or are they just talking about the same two
15 people.

16 Q. It's hard to tell, isn't it?

17 A. It's hard to tell when you are trying to read
18 these things --

19 Q. Tell me what their conclusions are with regard to
20 exposure to granular talc.

21 MR. HAYS: Did you complete your statement?

22 You said it's hard to tell.

23 THE WITNESS: Yes. It's hard to tell when you
24 are reading these things for the first time and trying
25 to deal with time pressure, which is very reasonable.

1 I'm not saying you're being unreasonable.

2 Q. (By Mr. Hinkle) Believe me, we had every
3 expectation that you would have already done all of this before
4 you got here, and I know it's not your fault either. But tell
5 us, go ahead and answer the question about the conclusions.

6 A. I have been doing a lot of trial and deposition
7 work as well as my other work lately, and it does kind of keep
8 me off balance.

9 Q. Just see if you can answer the question. I would
10 appreciate it.

11 MR. HAYS: Didn't you all request these article
12 be brought to this deposition?

13 MR. HINKLE: We requested all the articles that
14 he looked at and relied upon and that served as a
15 foundation for his opinions in the case.

16 MR. HAYS: Aren't you requesting him to go
17 through them at this point?

18 MR. HINKLE: Well, we've got them in front of us,
19 we might as well.

20 MR. HAYS: It's your choice.

21 THE WITNESS: What they say is that the exposure
22 to fibrous talc dust is more hazardous than to granular
23 talc. That is the last sentence.

24 Q. (By Mr. Hinkle) Do they make statements about
25 whether or not granular talc, exposure to granular talc is or

1 is not a hazard?

2 A. Well, I read this to say that it is, but it's less
3 of a hazard than exposure to fibrous talc based on pulmonary
4 function findings.

5 Q. Do they talk about the pulmonary function findings
6 in the individuals, the two that they looked at that were
7 exposed to granular talc, whether they were normal or abnormal,
8 does it say anything about that?

9 A. I think they indicate that they are abnormal.
10 They describe them as having had symptomatic talcosis. And
11 they indicate that -- they say "The pulmonary function data
12 show that like fibrous talc, prolonged exposure to a granular
13 type talc can produce in certain number of individuals an
14 impairment in ventilatory function and in diffusion capacity."

15 Q. What's the next epidemiological study that you
16 find that relates to the possible danger of exposure to fibrous
17 talc?

18 A. That would be --

19 Q. By the way, before we go on, what is granular
20 talc, do you know?

21 A. I am not real clear on that.

22 Q. Does it deal, does it say what granular talc is in
23 the article?

24 A. Mainly is I think described as to the relative
25 absence of fibers, as opposed to what it is, more what it

1 ain't.

2 Q. So anything that ain't got fibers in it is
3 granular?

4 A. Not necessarily. But I think that is what these
5 doctors making this report are saying. They are not
6 mineralogists, and I don't think they go into that very much.

7 Q. Is that what they indicate, that if it's got no
8 fiber in it, then to their thinking it's granular?

9 A. Well, which one was I just talking about?

10 Q. Exhibit 96, 1964 study.

11 A. I don't think they really characterize the
12 material in here.

13 Q. Any other epidemiological studies that relate to
14 the possible hazards of exposure to fibrous talc?

15 A. This is No. 95 published in the Archives of
16 Environmental Health in 1965. And here they talk about the
17 study of 43 talc workers with exposure to talc dust and milling
18 operations for more than ten years, and no previous
19 occupational dust exposure.

20 Q. What type of talc are they exposed to?

21 A. "The talc dust to which millers were exposed was
22 predominately talc mixed with tremolite, anthophyllite,
23 serpentine and less than five percent free silica." According
24 to Page 434. So it's the same work force that we have been
25 talking about, that they have been talking about for years.

1 Q. All right. Were there concentrations of exposure?

2 A. The concentrations that the workers were exposed
3 to exceeded the American Conference of Governmental Industrial
4 Hygiene threshold limit value of 20 million particles per cubic
5 foot in all cases but one exposures to talc dust exceeded the
6 recommended guideline.

7 Q. All right.

8 A. And then they go on and get more specific and
9 point out that some of the individuals had exposures, weighted
10 average exposures as high as 60 to 120 million particles per
11 cubic foot.

12 Q. So all of the work sites at which these exposures
13 took place were operating in violation of the regulations
14 concerning the work environment. Is that true?

15 A. I am not sure that we could characterize the
16 guidelines as regulations, but in any event they were
17 guidelines that were widely known in industry that this ACGIH
18 group published, and exposures on average did exceed those
19 guidelines.

20 Q. Any other epidemiological studies related to
21 possible health hazards associated with exposure to
22 non-fibrous -- excuse me, to fibrous talc?

23 A. I think the next one would be No. 65 by Kleinfeld
24 and co-workers.

25 Q. The year?

1 A. 1967, Archives of Environmental Health.

2 Q. What type of talc are we concerned with?

3 A. Same stuff.

4 Q. Tremolitic talc?

5 A. Yes.

6 Q. Is there any distinction made between health
7 hazards associated with fibrous versus non-fibrous talc in the
8 course of that article?

9 A. I don't think that they have any data that
10 reflects on fibrous versus non-fibrous. What this is is a
11 mortality study on people exposed to fibrous talc, and I don't
12 think there is any corresponding data to the workers exposed to
13 less fibrous or non-fibrous talc.

14 Q. Without regard to data, is that something they
15 discuss in the article, or do you know, the relative hazards of
16 exposure to fibrous versus non-fibrous?

17 A. I think they comment on the fact that fibers,
18 asbestiform fibers have been by this time implicated in causing
19 a number of cancers, including --

20 Q. All I want you to do is answer that question so we
21 can move on. Do you know whether or not they make any
22 statements in that article with regard to the difference in the
23 suspected danger exposure to fibrous versus non-fibrous talc,
24 do you know?

25 A. Well, I don't think they put it in those kind of

1 terms, that is why I am having trouble giving you a short
2 answer, but they imply at least it's the asbestiform fibers
3 that are present in the talc that these miners and millers were
4 exposed to that accounts for their accessive incidence of
5 cancer of the lung which is demonstrated in this study.

6 Q. As long as we're on that subject, Dr. Castleman,
7 are you aware of any medical literature which associates
8 exposure to fibrous talc with the development of lung cancer?

9 A. Well, this study represents itself as being the
10 first such study, and I --

11 Q. Are you aware of any others?

12 A. I believe there were subsequent studies published.

13 Q. Well, we will cover that in a moment then. Let's
14 go back to where we were. That was a cancer study you say,
15 Exhibit 65?

16 A. That was a study whose findings showed that in
17 addition to Cor pulmonale as a major complication of death of
18 these workers, that also lung cancer was demonstrated in this
19 study

20 Q. What kind of workers were they?

21 A. Talc workers and miners in New York State.

22 Q. All right.

23 A. After that were into the 1970s.

24 Q. Any epidemiological studies in the 1970s which
25 relate to the possible danger of exposure to fibrous talc?

1 A. Yes. Kleinfeld, Messite and Zaki.

2 Q. Exhibit number, please?

3 A. Number 71.

4 Q. What type of talc are we dealing with?

5 A. We're dealing with the same stuff.

6 Q. Tremolitic talc?

7 A. Tremolitic talc mined in up state New York.

8 Q. How many people were involved in the study or how
9 many subjects?

10 A. Two hundred and sixty workers.

11 Q. And what were the concentrations of exposure?

12 A. I don't think they have any information on the
13 concentration that these workers -- Oh, here. No, they are
14 taking about concentrations in other people's studies, but not
15 in this work force, I believe.

16 Q. That was 1974?

17 A. That's correct.

18 Q. All right. Any other epidemiological studies
19 relating to possible hazards associated with exposure to
20 fibrous talc?

21 A. By this time we're up to 1979. And I do not
22 represent that by this late date I have collected every study
23 that was published.

24 Q. Let's just talk about the ones that you have seen
25 before today or the ones that were provided to you today which

1 serve as the foundations for the opinions you are going to
2 offer today and at trial. Have you seen any other studies
3 following Exhibit No. 71 that relate to epidemiological studies
4 associated with possible health hazards of exposure to fibrous
5 talc?

6 A. I think these studies are relating to
7 non-asbestiform talc.

8 Q. We're going to get to those in just a moment.

9 A. I think that's all that I have here regarding
10 asbestiform talc. There were probably others in this volume
11 called "Dusts and Disease" which we didn't get to photocopy
12 which was published in 1979.

13 Q. You didn't see those though, did you?

14 A. I saw them, but I only photocopied the ones
15 relating to, I think relating to non-asbestiform talcs, because
16 I figured that Kleinfeld had done a pretty thorough job
17 regarding asbestiform talc by the late 1970s, that there was no
18 basis for doubting the gravity of that risk, and that -- but
19 there were papers and interest focused in the 1970s on work
20 forces exposed to non-asbestiform talc, and that is indicated
21 in Exhibit 72 and 74 and 75.

22 Q. We will be talking about those in just a few
23 moments. I have counted up, Dr. Castleman, ten epidemiological
24 studies associated with the possible health hazards of exposure
25 to fibrous talc.

1 A. Yes.

2 Q. Does that sound about right to you?

3 A. Yes.

4 Q. Every one of those has to do with tremolitic talc;
5 correct?

6 A. Yes.

7 Q. And those ten studies span a period of time of
8 approximately 40 years; correct?

9 A. Or less than that. Anyway, they start in --

10 Q. Start in '35 and go to '74.

11 A. That is right, that is about 40 years.

12 Q. Just about 40 years. So on the average that would
13 be approximately one every four years if you average it out;
14 right?

15 A. Yes.

16 Q. Do you have any idea concerning the total number
17 of medical articles, journals, periodicals, textbooks, so
18 forth, that were published over that 40 year period?

19 A. No, I don't.

20 Q. Now, what I would like for you to do is go back
21 now, and let's talk about epidemiological studies related to
22 possible health hazards associated with exposures to
23 non-fibrous talc. Before we do that, let me ask you a question
24 about the fibrous talc studies. Every one of those was a
25 retrospective study. Is that true?

1 A. No.

2 Q. Was there a prospective study done in those
3 epidemiological studies that we have discussed?

4 A. Well, there were studies in some cases that were
5 cross-sectional studies, looked at what kind of shape are
6 people in now.

7 Q. But those reviewed past history; right? They did
8 not set a control group and follow them from a point forward;
9 true?

10 A. They did that too. I mean in some cases they have
11 groups of subgroups of one study followed up five, ten years
12 later by the same New York State officials to see the mortality
13 experience, if you will, sometimes of the group which was
14 previously reported as having developed pneumoconiosis.

15 Q. Go ahead and tell me.

16 A. In that sense that the literature is prospective
17 as well as retrospective.

18 Q. Go ahead and tell me about any epidemiological
19 study that you have that relates to dangers of exposure to
20 non-fibrous talc.

21 A. We have already discussed the problem of analyzing
22 Dreessen in that regard because Dreessen doesn't talk about
23 whether it's fibrous or non-fibrous, but he does say one group
24 has four times as much tremolite in the talc than the other
25 group.

1 Q. Well, do you read that as a discussion of health
2 hazards associated with exposure to non-fibrous talc?

3 A. I think that it's -- I read that as something that
4 came out in 1935, and would have put anyone reading it on
5 notice that non-fibrous talc could well be bad for you to
6 breathe.

7 Q. Well, do you read Dr. Dreessen's article, Dr.
8 Castleman, to be an article dealing with possible health
9 hazards of exposure to non-fibrous talc?

10 A. Yes, I read it as dealing with both the hazards of
11 non-fibrous and fibrous talc, given that the information
12 provided as to fibers is almost completely lacking, except for
13 the reference to tremolitic and less tremolitic talc.

14 Q. What you're saying is that any article that you
15 see that does not make a clear distinction should be read as
16 one that deals with fibrous as well as non-fibrous talc; right?

17 A. Right. I think it has to be read with prudence by
18 people who are concerned about public health. That is the way
19 a public health person would read it.

20 Q. Do you consider yourself to be a scientist,
21 Dr. Castleman?

22 A. Yes, sir, I am a public health worker.

23 Q. And do you agree with me that scientists often
24 disagree with one another with regard to the significance of
25 certain data?

1 A. Well, certainly it occurs, it is a common
2 phenomenon in science.

3 Q. In fact, science doesn't progress without that
4 kind of disagreement; do you agree with that?

5 A. That is part of the process of the development of
6 knowledge; that's right.

7 Q. Would you agree with me that a manufacturer who
8 reviews scientific literature has the same right to agree with
9 one group of scholars as with another, would you agree with
10 that?

11 A. I wouldn't put it in those terms.

12 Q. Would you agree with me that if you have two
13 respectable schools of scientific thought with regard to a
14 subject, that a manufacturer is free to choose which of those
15 two schools of thought the manufacturer will agree with?

16 A. No.

17 Q. All right. You think then that a manufacturer
18 should be placed in the position of having to anticipate which
19 school of scientific thought will ultimately prevail?

20 A. No. But I think that the manufacturer has to
21 exercise prudence in the sale of products that are put in the
22 channels of commerce the same as engineers design bridges
23 assuming the worst case scenario. Manufacturers putting
24 products into the channels of commerce, given incomplete
25 knowledge about the health effects of those products have to

1 assume the worst until there is proof that the people -- that
2 the respectable body of science with the more serious
3 apprehensions about the product, until there is proof that
4 those people are wrong, because human live's depend on it.

5 MR. CROSBY: Move to strike the answer as
6 non-responsive.

7 MR. JAMES: I'll join in that motion.

8 MR. PIERCE: I'll join in that motion also.

9 Q. (By Mr. Hinkle) Do you believe, Dr. Castleman,
10 that common sense plays any role in regard to how a
11 manufacturer conducts his or her business?

12 A. Yes.

13 Q. Go ahead and tell me if you can find any
14 epidemiological studies that relate to alleged health hazards
15 associated with exposure to non-fibrous talc?

16 A. You are asking for an epidemiological study,
17 right?

18 Q. Yes, sir.

19 (Whereupon, a short recess was taken.)

20 Q. Doctor, during the break have you had a chance to
21 find all of the articles that relate to epidemiological studies
22 as to the possible health hazards of non-fibrous talc?

23 A. During the break which lasted less than five
24 minutes, I have not done that.

25 Q. Well, have you found any of them during the break?

1 A. About the only thing I found during the break was
2 my lunch.

3 Q. We did take a 45 lunch break to accommodate you,
4 Dr. Castleman, in hopes that you would get your lunch.

5 A. It wasn't your fault, but I didn't get my lunch.

6 MR. HAYS: That was my error. I misunderstood.
7 He thought I was going to order him a sandwich, and
8 I failed to do so. If it's five minutes that you feel
9 you have been cheated out of some way by a five minute
10 break, we will add the five minutes on the end of the
11 deposition so you all won't be too upset.

12 MR. HINKLE: Mr. Hays, you are, as always, a
13 gentleman and a scholar, and we appreciate that.

14 MR. HAYS: My momma trained me to be that
15 way. I sometimes disappoint her, but I try hard.

16 Q. (By Mr. Hinkle) The question is on the table,
17 Dr. Castleman.

18 A. So far all I see are case reports that might
19 relate to hazards of non-fibrous talc.

20 Q. We will get to those in a little bit. I want to
21 know now about epidemiological studies.

22 A. Here we have got -- I am not sure if this quite
23 qualifies as an epidemiological study, but probably it does.

24 Q. What's the exhibit number, please?

25 A. Number 36.

1 Q. All right. Who is the author, and what is the
2 year?

3 A. Published in 1949 by Hogue and Mallette of the
4 Firestone Tire and Rubber Company.

5 Q. How many subjects were involved?

6 A. Twenty.

7 Q. And what was the material to which they were
8 allegedly exposed?

9 A. It's a Vermont Talc, which is described as a pure
10 talc from a deposit near Johnson, Vermont with no free silica,
11 tremolite, chrysotile, chrysolite or actenolite.

12 Q. What were the conclusions with regard to that
13 article?

14 A. These authors concluded physical examinations and
15 chest roentgenograms of a group of 20 men exposed to talc dust
16 for periods ranging from 10 to 36 years in rubber inner tube
17 production were normal for men of their age group in urban
18 industrial environment.

19 Q. So this particular study follows by 14 years the
20 Dreessen study, and indicates that workers exposed to
21 non-fibrous talc have normal chest X-rays, even though they
22 worked in the industry from 10 to 36 years. Is that true?

23 A. That is what these authors say.

24 Q. All right.

25 A. I assume that the question is still pending,

1 what's the next epidemiological study --

2 Q. Yes, please. Yes, let's move on, let's get it
3 done.

4 A. -- relating to a non-fibrous talc.

5 Q. Yes.

6 A. So we will skip the case reports on people exposed
7 to non-fibrous talc for now.

8 Q. We will come back to them.

9 Again, Dr. Castleman, I know you are not delaying on
10 purpose, but there is a good deal of time passing between our
11 discussion of these articles, and in view of the fact we're on
12 kind of a tight schedule, I am going to ask that you do all
13 that you can to hurry the process along.

14 A. I am already doing that. I mean, I don't think
15 that I appear to be dawdling.

16 Q. It is taking a good deal of time.

17 A. Well, I guess it's a real contrast to me doing
18 something like this, as opposed to being asked the same
19 questions again and again in depositions about asbestos. I
20 will try to change gears.

21 MR. CROSBY: Move to strike the comments of the
22 witness.

23 MR. HOOD: I would ask that the witness not take
24 out time to read articles, and just answer the questions
25 posed.

1 MR. HAYS: Let the record reflect that the
2 questions posed by counsel require a review of the
3 documents. So if you want the deposition to speed up,
4 maybe we ought to go to a different line of questioning.

5 Q. (By Mr. Hinkle) Again, I don't want to get
6 involved in this kind of discussion, but this should have been
7 done before we got here.

8 A. I can't anticipate every question you are going
9 to ask.

10 Q. You can anticipate that I am going to ask you
11 about these articles, Dr. Castleman.

12 A. I can anticipate that you're going to ask me
13 whether there were articles showing people breathing different
14 types of talc that got sick.

15 Q. Let's not fuss about it, let's just go ahead and
16 get the questions answered.

17 MR. HAYS: He's entitled to respond if you make
18 some remark.

19 Did you complete your response?

20 THE WITNESS: Yes.

21 I didn't think the industries involved conducted
22 epidemiological studies, nor were such studies
23 conducted by government officials in the case of
24 non-fibrous talcs.

25 MR. HAYS: Are you talking about a specific time

1 period now?

2 THE WITNESS: Up until the 1970s I don't see
3 anything, except case reports.

4 MR. HOOD: Let the record reflect he's turning
5 over and looking through articles that have been
6 produced in the deposition.

7 THE WITNESS: Let the record so reflect.

8 Q. (By Mr. Hinkle) You said that there were no
9 industry studies and no government studies, and I'm not
10 limiting it to industry and government. I want to know whether
11 anybody did epidemiological studies concerning the possible
12 health hazards of exposure to non-fibrous talc?

13 A. Well, there's practically nobody aside from the
14 industries involved and the government officials who could have
15 conducted epidemiological studies. A doctor working in a
16 hospital isn't in a position to do an epidemiological study.
17 He might see a case and report it, but the only folks who would
18 have been able to conduct epidemiological studies, especially
19 back in the time before the 1970s, would have been people who
20 were placed either in the industry itself, or in a government
21 agency of some sort.

22 Q. Dr. Castleman, you have told me about a number of
23 epidemiological studies that were done by Kleinfeld and others;
24 true?

25 A. Yes, by state officials.

1 Q. All right. I want you to look at those articles
2 and tell me -- and look at all of them, I want to be sure,
3 whether there are any other epidemiological studies done by
4 anyone insofar as the possible health hazards of exposure to
5 non-fibrous talc?

6 A. I don't see anything until 1976 when the federal
7 government in the form of the National Institute for
8 Occupational Safety and Health.

9 Q. Are you looking at an exhibit?

10 A. I am looking at Exhibit 72.

11 Q. All right. Was that an epidemiological study of
12 possible health hazards associated with exposure to non-fibrous
13 talc?

14 A. This is a report of an epidemiological study.
15 This isn't the primary study.

16 Q. What type of material -- excuse me. The year for
17 that again was?

18 A. 1976.

19 Q. All right. What type of material are we dealing
20 with?

21 A. What is called "Relatively Pure Talc".

22 Q. What --

23 A. That is what it's called by the researcher.

24 Q. Who is the researcher?

25 A. Sherry Selevan, epidemiologist with NIOSH.

1 MR. HOOD: That is a misstatement. The summary
2 he's looking at has the quotation "Relatively Pure"
3 end of quotation.

4 MR. HAYS: Wait a minute. Excuse me. If you are
5 going to make an objection, make an objection. Just
6 don't be making comments on the record.

7 MR. HOOD: Let's read it correct.

8 Q. (By Mr. Hinkle) What are the conclusions with
9 regard to that 1976 NIOSH study as it relates to exposure to
10 non-fibrous talc?

11 A. It says that NIOSH -- this study, and this is in
12 quotes "clearly demonstrate" end quote, that non-malignant
13 respiratory diseases such chronic emphysema and bronchitis are
14 associated with exposures to quote "relatively pure" end quote,
15 talc, according to NIOSH epidemiologist Sherry Selevan.

16 Q. Does the report speak to the concentration,
17 exposure concentrations?

18 A. No.

19 Q. The report does indicate, does it not, that --

20 A. I mean not quantitatively.

21 Q. It does indicate that there appears to be no
22 relation between non-fibrous talc and cancer; right?

23 A. It says that more information needs to be
24 considered on the issue of cancer, that the findings are not
25 clear cut. They found some lung cancer deaths, but they -- the

1 last paragraph reads as follows: "Investigators discovered six
2 lung cancer deaths, four among miners and two among persons who
3 were both miners and millers during the 30 year period. Eleven
4 workers died from chronic emphysema, bronchitis and other
5 non-malignant respiratory diseases. Five were millers, one was
6 a miner, and the rest worked at both jobs. Researchers said
7 the 17 deaths greatly exceeded cancer and respiratory disease
8 death rates for both Vermont and the nation.

9 Earlier it does say that on the cancer correlation
10 epidemiologist Selevan cautioned that other factors such as
11 smoking and mine environment need to be taken into account
12 before conclusions can be drawn.

13 Q. Could I see the exhibit, please?

14 Is this the last epidemiological study that you are
15 aware of that deals with possible health hazards associated
16 with exposure to non-fibrous talc?

17 A. Selevan's work was published in the next year, it
18 was announced at the conference in 1977, which I attended and
19 made a presentation at, and which was published in 1979.

20 MR. HOOD: I would like the record to reflect
21 what he was referring to and reading from is not the
22 NIOSH study, but a summary that was marked Exhibit 72,
23 the source of which has not been designated or
24 determined.

25 MR. HAYS: I'm going to object once more to

1 Counsel's remarks on the record that are not objections.
2 We have a lead counsel that is fully capable of taking
3 care of this.

4 MR. HOOD: This apparently is a NIOSH study,
5 it's a summary of it. We have asked him to produce it,
6 he has not produced, but he has produced this one page.

7 THE WITNESS: I am looking at it right now,
8 Mr. Hood. I have produced it.

9 Q. (By Mr. Hinkle) On the same exhibit there is
10 another summary that deals with benzene, hexavalent, chromium,
11 moca.

12 A. Right. Very bad chemicals.

13 Q. Those are all bad chemicals, aren't they?

14 A. Uh-huh.

15 Q. They all pose -- When you say uh-huh, I realize
16 you have got your mouth full. Is that yes?

17 A. Yes.

18 Q. Do those all pose health hazards to anyone who
19 works around them; correct?

20 A. A lung cancer hazard.

21 Q. Any other hazards that they pose that you know of?

22 A. Some of the substances cause -- Did I say benzene?
23 Benzene doesn't cause lung cancer, it causes leukemia. But
24 they cause occupational cancer, and in some cases these cause
25 other kinds of non-malignant disease such as arsenic causing

1 skin ulceration and so forth.

2 Q. Does benzene pose a health hazard apart from the
3 development of leukemia?

4 A. Yes, it causes -- I believe it causes other forms
5 of cancer.

6 Q. What other forms of cancer are you aware of caused
7 by benzene?

8 A. Cancers of the blood forming organs. But I forget
9 the exact names of them. Look, this isn't a deposition on
10 benzene, and I am not an expert on benzene. It's just
11 something I happen to know.

12 Q. All right. So if I understand it then, there are
13 two epidemiological studies that relate to possible dangers
14 associated with inhalation of non-fibrous talc, one of them,
15 the early one in 1949 finds no radiographic evidence of injury,
16 and the other one in 1976 -- Oh, and by the way, do you know
17 whether or not that 1976 NIOSH report was ever formally
18 published?

19 A. Well, I don't know of other places where it may
20 have been published, and it may have been published elsewhere,
21 but I know it was published in the proceedings of this
22 conference. And like I say, by the time we get to the late
23 '70s I didn't keep looking for each and every article on talc,
24 although I know there were a number of such articles.

25 Q. Well, you didn't produce any epidemiological

1 studies relating to possible health hazards of exposure to
2 non-fibrous talc from 1949 to 1976; true?

3 A. Right. I don't know of any such studies.

4 Q. All right.

5 A. At this time.

6 Q. Are you aware of any epidemiological studies that
7 relate to possible health hazards associated with inhalation of
8 non-asbestiform fibrous talc?

9 A. Non-asbestiform fibrous talc?

10 Q. Yes. Are you aware that there is such a
11 substance?

12 A. I haven't seen that kind of description in the
13 literature that I have read.

14 Q. So that particular term is a term that is unknown
15 to you then?

16 A. Right.

17 Q. All right. So I take it then that we would be
18 safe in saying that you have found no epidemiological studies,
19 no case studies, no animal studies dealing with possible health
20 hazards of exposure to non-asbestiform fibrous talc; true?

21 MR. HAYS: By that name you mean?

22 Q. (By Mr. Hinkle) Or any description that might
23 parallel that name.

24 MR. HAYS: Let's just be fair if you want to put
25 it in quotes. He says he hasn't seen that word, that

1 was his testimony. He hasn't seen non-asbestiform
2 fibrous talc. That is not to say that some expert or
3 physician wasn't referring to that type of talc,
4 whatever it is, by another name. So I just don't
5 want to get caught in a semantics trap here.

6 Q. (By Mr. Hinkle) Do you know, Dr. Castleman, what
7 non-asbestiform fibrous talc is?

8 A. No.

9 Q. So I take it then that you would not be prepared
10 to offer any testimony with regard to that substance; true?

11 MR. HAYS: Once again, unless it's known by
12 some other name.

13 Q. (By Mr. Hinkle) Well, that is the name that I
14 know it by. And if that is the name I know it by, and if that
15 is the name I am advancing to you, you are in no position to
16 make testimony about it by that name. Agreed?

17 A. All I can say is I have never heard of this
18 entity. It's possible that that kind of characterization
19 appears in some article of some sort or another, perhaps
20 mineralogical article, perhaps another one, but I haven't seen
21 it.

22 Q. All right. That 1949 article, epidemiological
23 study, Exhibit No. 36, do you agree with me that manufacturers
24 of talc have as much right to place credence in that article as
25 in any of the other articles that you have spoken of?

1 A. The 1949 article by the Firestone doctors?

2 Q. By whoever they were, Hogue and Mallette, I think
3 you said.

4 A. Yes. I mean that is part of the total body of
5 medical knowledge.

6 Q. All right.

7 A. And as such could certainly be accorded some
8 weight.

9 Q. Now, you have not produced nor reviewed, I take
10 it, any animal studies relating to the possible health hazards
11 associated with exposure to talc. Is that true?

12 A. I have looked at some animal studies, and I think
13 I have produced some animal studies.

14 Q. Let's talk about the animal studies then. How
15 many have you produced?

16 A. I think Schultz and Williams did some animal work
17 in 1942.

18 Q. Get that exhibit and let's talk about it.

19 A. (Witness produces document.)

20 Q. Can you not tell by looking at the abstract,
21 Dr. Castleman, whether it's an animal study or not?

22 A. I can tell it's an animal study. But I expected
23 your question was going to go beyond that.

24 Q. Well, when you find one, let me know, so I can
25 start framing some questions. Have you found one?

1 A. I have been looking at one for the last two
2 minutes.

3 Q. That is true. What is the exhibit number?

4 A. Schultz and Williams, 1942.

5 Q. The exhibit number?

6 A. 22.

7 Q. What were the conclusions?

8 A. They said, "The greatest amount of fibrous tissue
9 was developed in the presence of two talcs which contained the
10 least carbonate. Talcs of this type should be avoided whenever
11 possible."

12 Q. What types of talc are they talking about?

13 A. Talcs which contain the least carbonate.

14 Q. Is that all we know about them, that they contain
15 the least carbonate?

16 A. Yep.

17 Q. Any other animal studies?

18 Q. This is one by Policard published in a French
19 journal.

20 Q. Exhibit number?

21 A. 19.

22 Q. You can skip the French journal. Any others?

23 A. This is another study by a French author, a
24 separate one.

25 Q. You can skip the foreign periodicals.

1 A. That was No. 25. This is a review of the
2 experimental studies in the report of Siegal, and co-workers.

3 Q. Exhibit number?

4 A. Number 24, this report published in the United
5 States by New York state officials describe experimental work
6 by a number of authors, Haynes in 1931; Stuber in 1934; Fossel
7 in 1935; Bethune in 1935. So while we do not have the primary
8 articles, some of which were written in other languages here,
9 we do have a nice little summary here.

10 Q. All I want to know is whether or not there are any
11 articles that deal with animal studies in front of you?

12 A. Yes, there are. And like I say, this one --

13 Q. You have told us about article 24, Exhibit 24.
14 Any others?

15 A. It contains both review of the animal studies, as
16 well as clinical material.

17 Q. Let me ask you a question. From the standpoint of
18 making general statements, is it more helpful to the scientific
19 community to have epidemiological studies or case studies?

20 A. It's helpful to the scientific community to have
21 both kinds of studies.

22 Q. Which is generally regarded as the most helpful in
23 terms of reaching conclusions by the scientific community?

24 A. I don't think there is a simple answer to that
25 question. A case report can provide you with information that

1 an epidemiological study cannot provide you with. Pathological
2 information is an extremely important type, and that kind of
3 information is simply not available in morbidity studies of
4 workers. We don't go and chop peoples lungs out to see what
5 their lung tissues look like. All you can tell is what the
6 X-ray films show you, and the pulmonary function tests and
7 clinic examinations show you.

8 Q. So it's your position that an epidemiological
9 study is no more helpful to the general scientific community in
10 framing general scientific principles than a case studies is?

11 A. Well, I am just saying there are no simple
12 answers. A lousy epidemiological study or a poorly constructed
13 one can be very misleading and can be extremely unreliable.

14 Q. Let's assume a competent epidemiological study and
15 a competent case study.

16 A. Again, they are different types of information
17 imparted by both.

18 Q. All right.

19 A. And I don't think that the comparisons of that
20 kind are the sorts of comparisons that scientists would make
21 unless they were being deposed by lawyers.

22 Q. Are they the kinds of comparisons that are made in
23 the literature, Dr. Castleman, or do you know?

24 A. No, I can't recall seeing those kinds of
25 comparisons where a scientist says that epidemiological studies

1 give us information, more information, or give us information
2 that is -- or case reports give us information -- I mean, it's
3 known that case reports give information that is not contained
4 in some epidemiological studies, and epidemiological studies
5 contain information unavailable from case reports.

6 Q. Listen to the question, Dr. Castleman. Whether or
7 not epidemiological studies are more helpful in making general
8 statements of scientific principal, that's all I want to know.

9 A. They may be, but that is not guaranteed.

10 Q. I am not talking about guaranties, I am talking
11 about what is generally regarded in the scientific community.

12 A. I don't think that, you know, that the question
13 lends itself to a simple answer.

14 Q. Fine.

15 A. It really depends on specific studies that you are
16 trying to compare.

17 Q. If you can't answer then, you can't answer.

18 A. Well, then I can't answer.

19 Q. Thank you. Now, do you find that animal studies
20 are in any way helpful in regard to making general statements
21 of scientific principal?

22 A. Sure. All these kinds of studies contribute
23 information.

24 Q. All right. Now, I want you to go back through and
25 find for me all of the case studies that deal with possible

1 hazards of exposure to fibrous talc.

2 A. Do you want me to skip the initial study on rubber
3 workers published in Italian?

4 Q. Yes, skip that one.

5 Q. I tell you what, let's save a little time,
6 Dr. Castleman. As you come across a case study, let's talk
7 about it as it comes up rather than get them segregated out of
8 fibrous and non-fibrous.

9 A. That is a great idea.

10 Q. And keep them separate, by the way, when you stack
11 them up so we can have them.

12 Do you have one in front of you?

13 A. Well, I am looking at the -- this is China clay.
14 Here is talc. This is a 1936 report by Middleton.

15 Q. What's the exhibit number, please?

16 A. 16. I think Middleton is just talking about the
17 work of others, so we will skip that.

18 Q. Is there a case study involved in there?

19 A. He reports on cases of talc pneumoconiosis.

20 Q. What does he say about them?

21 A. He doesn't say anything about whether the talc was
22 fibrous or non-fibrous, which is what I am trying to find,
23 assuming that is what you're mainly after.

24 Q. What does he say about exposure to talc and its
25 possible hazards?

1 A. Summarizing Merewether's report, he says, "That
2 the suggestion is that the radiological appearances seen really
3 reflect the actual dust in the lungs together with any
4 associated congestion rather than the presence of a diffuse
5 fibrosis. The few examinations made so far did not disclose
6 any appreciable disablement after exposures ranging from 9 to
7 32 years."

8 Q. What is the year on that?

9 A. 1936. This is describing research conducted in
10 Great Britain.

11 Q. And so --

12 A. The source of the talc is not indicated.

13 Q. So this is one year after the Dreessen study?

14 A. Yes.

15 Q. And we have conclusions that there is no
16 disablement associated with breathing talc for periods of 9 to
17 32 years?

18 A. Right, as had been reported by Merewether at least
19 as Middleton sums it up. And then he talks about other cases
20 that other people have reported.

21 Q. Do you believe that a reasonable manufacturer
22 would be justified in relying on the work of Merewether and
23 these others?

24 A. I think a reasonable manufacturer has to rely on
25 the total body of knowledge to the extent that that information

1 is obtained.

2 Q. Including this?

3 A. Including everything.

4 Q. All right.

5 A. You don't get to pick and choose. You got to
6 include everything. That is the way I look at it. I mean you
7 pick and chose on the basis of the quality of information from
8 a scientific point of view, not from an economical pecuniary
9 point of view, if you get my meaning.

10 Q. Please go on and tell us the next case study that
11 you find.

12 A. I have passed over the reports of Porro up until
13 now.

14 Q. Exhibit number, please?

15 A. This is Exhibit No. 23. I have not counted Porro
16 among the epidemiological studies, because my reading of this
17 was that the population base from which these workers came was
18 not so well defined.

19 Q. All right. Which Porro --

20 A. Number 23.

21 Q. I have got the exhibit number, but I don't have
22 those exhibits in front of me, so tell me which Porro article
23 you are talking about.

24 A. 1942.

25 Q. Is that the American --

1 New York mined talc, but let me make sure. He starts out with
2 reviewing earlier work before he gets around to describing his
3 case. I am quite sure, knowing the rest of the literature,
4 that this is a talc miner who mined fibrous talc, but it
5 doesn't say that in the article.

6 Q. So you are assuming that we are talking about
7 tremolitic talc then; right?

8 A. Yes, but I am assuming, as you might say, material
9 not in evidence here in this article. I am assuming things
10 based on a larger knowledge in time than would have been
11 available to someone reading this in 1946. Someone reading
12 this in 1946 wouldn't have, I think -- these doctors just don't
13 make the distinctions that we maybe wish they would have made
14 when they wrote about the medical condition of their patients.
15 They don't make the kind of mineralogical distinctions that
16 your questions are directed toward. And so someone reading the
17 article I think simply would not know whether this is fibrous
18 or non-fibrous talc unless they knew a little bit more about
19 what kind of talc came from St. Lawrence County, New York. But
20 even there it doesn't say that this guy work in
21 St. Lawrence County. It says there have been earlier reports
22 from St. Lawrence County. Maybe if you went back and looked at
23 Porro's earlier work you could maybe at least infer that that
24 is where this fellow came from. But it doesn't say it here.

25 Q. So the answer to my question is yes, that is your

1 assumption?

2 A. My assumption is someone reading the article
3 simply wouldn't know.

4 Q. I'm not asking about anybody else, I'm asking
5 about you, Dr. Castleman. Are you making the assumption that
6 Exhibit No. 27 deals with a worker exposed to tremolitic talc;
7 yes or no?

8 A. That is my best guess.

9 Q. Thank you. Dr. Castleman, have you yourself ever
10 conducted an epidemiological study?

11 A. No.

12 Q. Have you yourself ever done a case history work-up
13 on a patient?

14 A. No, I don't practice medicine without a license.

15 Q. You're not qualified to supervise a case history
16 work-up; is that true?

17 A. I am not a physician, so I don't go around
18 examining people.

19 Q. Whether you do or not, I'm asking --

20 A. At least not for medical purposes.

21 Q. Please, Dr. Castleman. Whether you do it or not,
22 do you consider that you are qualified to do that if you want
23 to?

24 A. No.

25 Q. Do you consider that you're qualified to supervise

1 epidemiological studies from a medical perspective?

2 A. No. I don't supervise those kinds of studies, but
3 I read them and understand them, and I've examined and
4 critically reviewed hundreds if not thousands of
5 epidemiological studies over the last 20 years.

6 Q. I didn't ask you about reading, reviewing or
7 criticizing. I asked you about supervising. Do I understand
8 that the answer to my question is: No, you are not qualified
9 to do that; right?

10 A. (No response.)

11 Q. Dr. Castleman?

12 A. I'm thinking about it. It just depends on the
13 nature of the study. I am not qualified to do it to the extent
14 that the qualifications needed would be in the area of
15 medicine, but a lot of epidemiological work is simply a matter
16 of statistics, and I am trained in the area of epidemiology and
17 the statistics, so it really would depend on more of the
18 specifics of the data base under consideration.

19 Q. So you may be qualified, but you have never been
20 called upon to do that. Is that an accurate statement?

21 A. Right.

22 Q. Have you done any follow-up research to determine
23 whether or not the -- strike the question.

24 Have you done any follow-up research to determine how
25 the various articles that we have made exhibits and have

1 discussed were received by the medical community?

2 A. The only way I would really have of knowing that
3 is by reading the articles themselves, looking at the way that
4 the different writers evidenced an awareness of writing by
5 others in their own country and in other countries. So in that
6 sense, I can see the kind of cross-fertilization of knowledge
7 that occurs across international borders.

8 Q. Are you aware, for example, whether or not any of
9 the articles that we have discussed have been criticized in
10 terms of their methodology or conclusions?

11 A. They have been, but I am not aware of the details.
12 I haven't been involved in controversies over talc that much.
13 I know that the health research group in Washington has very
14 vigorously criticized the Vanderbilt Talc Company, and has
15 written about that, and that is one of the documents in the
16 file I brought here today.

17 Q. Apart from the Vanderbilt Talc Company, are you
18 aware of any of these articles that have been criticized by
19 subsequent authors or researchers with regard to methodology
20 and/or conclusions?

21 A. No. But there may be such controversy to which I
22 am unaware.

23 Q. Would that be something that would be necessary
24 for you to know in deciding how this material was received by
25 the medical community generally?

1 A. It might be relevant. But again, I think it would
2 be reflected in the medical literature if substantial
3 controversy existed.

4 Q. You are not suggesting to anyone here that you
5 have an exhaustive collection of the literature relevant to the
6 topic in front of you?

7 A. I believe I have a representative collection of
8 the literature which is illustrative of the way knowledge
9 emerged about talc.

10 Q. Dr. Castleman, did I ask you about a
11 representative sample?

12 A. I believe you used the word exhaustive.

13 Q. That is exactly the term that I used.

14 A. When I say exhaustive, I am talking about the kind
15 of research I have done on asbestos. Now, that is exhaustive.

16 Q. That is what I'm thinking too, and that is why I
17 asked. Are you suggesting that you have done and you have in
18 front of you and exhaustive compilation of the work that is
19 done in this field?

20 A. It's not exhaustive in the sense that it is all
21 inclusive. And I believe that the work that I have done on
22 asbestos comes close to that, at least with respect to the
23 historic literature. But the work on talc, there could be a
24 few things missing here, probably are.

25 Do you want to continue going through case reports, or

1 do something else?

2 Q. Are you qualified to criticize the methodology and
3 the conclusions of the various authors that we have been
4 discussing today?

5 A. I think I am qualified to criticize, critically
6 review some of the stuff. I am not a pathologist. If you get
7 into the fine points of what pathologists write about what they
8 see or think they see, you might be getting into an area where
9 I would feel uncomfortable. But for the most part, the
10 information reported here is information which I feel that I am
11 competent to critically evaluate.

12 Q. Have you been asked to make any criticisms of the
13 methodology and/or the conclusions of any of these articles
14 that we have discussed today?

15 A. No.

16 Q. Go to the next case study, if you would, please.

17 A. This is No. 29. This is a 1947 publication in the
18 AMA journal called Occupational Medicine. The author is a
19 physician in New York City.

20 Q. What type of substance, what type of talc is he
21 dealing with? I am assuming that he's dealing with talc;
22 right?

23 A. Yes.

24 Q. What type of talc is he dealing with?

25 A. I believe that this is a case in which the author

1 says, "The elements of silica and asbestos have been eliminated
2 as a cause of the pneumoconiosis in this case since the patient
3 was never exposed to these substances in any industry prior to
4 his exposure to talc in the cosmetic industry, and since the
5 chemical analysis of the talcum powder revealed less than .05
6 free silica." So here it appears that we're talking about a
7 non-fibrous, talc which is also low in free silica, which has
8 nonetheless caused pneumoconiosis, and which was being used in
9 the cosmetic industry.

10 Q. Prior to that time is there anything in the
11 medical literature indicating that exposure to non-fibrous talc
12 might result in injury to the lungs?

13 A. I think this is the first -- this may be the first
14 study, I hesitate to say it definitely was, but this certainly
15 may have been the first report where the author focused in on
16 the presence or absence of asbestos fibers and talc in trying
17 to ascertain what components -- I am sorry asbestos fibers and
18 silica, in trying to figure out just what it was that was
19 causing pneumoconiosis in the talc exposed worker.

20 Q. May I see the exhibit, please, while you are
21 looking for the next case study?

22 A. Sure.

23 Q. Do you have it in front of you, Dr. Castleman?

24 A. I am examining an Italian report, because I think
25 the later literature shows that the Italian talc was not

1 fibrous. If you want to just skip the Italian work --

2 Q. Yes.

3 A. -- we can do it. I am now looking at a German
4 publication in 1950. Di Biasi's case I believe I have seen
5 referred to by others as being a low or as to a fiber free
6 talc.

7 Q. What's the exhibit number?

8 A. 39.

9 Q. Do you know whether or not it deals with fibrous
10 versus non-fibrous talc?

11 A. I believe I have seen this referred to in
12 subsequent literature as a non-fibrous talc.

13 Q. What are the conclusions? Oh, by the way, what
14 year is it?

15 A. This is 1950 to '51. Let me just -- that
16 particular issue isn't addressed in the conclusions, at least
17 not that I could tell.

18 Q. So you are unable to tell us what the conclusions
19 are in that article?

20 A. I will tell you what the conclusions are, but I
21 don't think they have a whole lot to do with whether it's
22 fibrous or non-fibrous. They're talking about a man who had 17
23 years exposure to talc dust.

24 Q. What was the outcome of that exposure?

25 A. This is written in German.

1 Q. If you can't make any sense out of it,
2 Dr. Castleman, that is all right. We will move on.

3 A. It's recorded as a case of talcosis, but the
4 details of the whole thing are expressed in the terms of a
5 pathologist, and it is in the German language.

6 Q. Let's go to the next case study then.

7 A. I think were up to Friedman, pneumoconiosis,
8 reported a case.

9 Q. Exhibit number, please?

10 A. 1952, No. 43. This is in JAMA.

11 Q. What type of talc?

12 A. They say the free silica contents of talc is half
13 a percent or less. Let me make sure we're talking about the
14 same, because sometimes they go back and forth between
15 reviewing past studies and telling you what they have seen
16 themselves. I am afraid this is another case of a doctor not
17 being terribly attentive to mineralogic details.

18 Q. Do you know whether or not that deals with fibrous
19 versus non-fibrous talc?

20 A. It doesn't say anything about whether there are
21 fibers in this talc or not.

22 Q. All right.

23 A. The next case report is in the AMA Archives of
24 Industrial Hygiene, 1952, and this is No. 44. Forty-two year
25 old man at the time of his death. He had worked in a shoe

1 factory cutting out shoe linings. And there was abundant
2 talcum powder used in this process.

3 Q. What were the exposure levels?

4 A. I am quite certain there is no data on that.

5 Q. What was the type of talc involved?

6 A. I would be very surprised if a doctor reported
7 that. This is one of those extraordinarily thorough case
8 reports.

9 Q. It does not tell us what type of talc we're
10 dealing with?

11 A. He is helpful though. On 461 the good doctor does
12 tell us the case reported by Di Biasi found only very
13 occasional asbestos bodies. The analysis of the talc inhaled
14 revealed a small fraction of asbestos. So that is the
15 reference I mentioned that said that Di Biasi's case was a
16 relatively non-fibrous talc.

17 Q. But it did have asbestos in it?

18 A. Yes.

19 Q. What about Exhibit No. 44?

20 A. About his own case?

21 Q. Yes.

22 A. It's extraordinarily detailed. This is the way
23 Germans write case reports.

24 Q. Can you tell whether or not it's fibrous versus
25 non-fibrous talc?

1 A. I don't think so.

2 Q. All right. Let's go to the next one then.

3 A. I don't think he indicates whether there were
4 fibers in this talc.

5 Q. Let's go to the next one then.

6 A. This is No. 45 by a Navy doctor called "Talc
7 Pneumoconiosis".

8 Q. What is the date?

9 A. 1953. He has been employed dusting life rafts
10 with talcum powder for a year.

11 Q. What type of talc?

12 A. I very much doubt that the Navy doctor had any
13 information on that. It was a previous job that the individual
14 had held prior to going into the Navy.

15 The next one is No. 46 in the British Medical Journal by
16 Bertram Mann and Doctor or Mr. Deasy. This case --

17 Q. Year, please?

18 A. 1954. Points out that the bulk of the reports are
19 related to workers in talc mills or steatite mines, workers and
20 employees engaged in the rubber industry, and in the production
21 of cosmetics.

22 Q. What type of talc is he discussing?

23 A. In this case he says, "Under Discussion:
24 Petrographically talc consists of straight fibers, curved
25 fibers and shreds. These fibers measure up to ten microns in

length."

Q. Do you know what kind of talc it is?

A. Not beyond what I just read you.

Q. Any discussion of any other substances included with talc?

A. No. These doctors are lousy mineralogists.

Q. What were the conclusions with regard to that particular case?

A. In the end he says, "A survey of the literature suggests that this condition is not a pure pulmonary silicosis, but is rather a slowly developing fibrogenic disorder. And it has been suggested that it may be allied to asbestosis. In the above reported case talc pneumoconiosis manifested itself by a very insidiously developing dyspnea associated with a mildly productive smoker's cough."

Q. Does it discuss in that article whether or not the subject was a cigarette smoker?

A. The words "smoker's cough" are in quotes. So he might not have been a smoker, he might just have had a cough that sounded like a smoker's cough. It doesn't say.

Q. May I see the exhibit, please?

A. Yes. I don't think it actually says whether or not the man smoked.

Q. Do you have the next case history in front of you?

A. Yes.

1 Q. What is the exhibit number, please?

2 A. I am not sure that these -- I am not sure if he's
3 reporting a new case here or not. This is McLaughlin, No. 50,
4 1955. Does look like McLaughlin is just reporting again on a
5 case that he's already seen. Which reminds me, there were a
6 few more articles brought in this morning, one of which was the
7 original McLaughlin report of 1949.

8 Q. Well, was that 1949 McLaughlin report a case
9 study?

10 A. It was, it was a case study.

11 Q. Exhibit No. 93?

12 A. McLaughlin's report, the original one was
13 published in the British Journal of Industrial Medicine in 1949
14 reporting a fatal case of talc pneumoconiosis, and age 51, who
15 had worked in a rubber tire factory for 37 years.

16 Q. What kind of talc?

17 A. The mineralogy of the particles in the lung
18 included some fibers.

19 Q. Yes. Concentration of exposure?

20 A. Kind of interesting. The concentration of
21 exposure, I don't know if that is indicated. Let me just -- as
22 to whether they are fibrous or not fibrous, it says that talc
23 in this plant came from Norway initially, and then Canada.

24 Q. Doctor, this is quite interesting to us, but I
25 need to know whether or not there is anything in there about

1 concentration, exposure concentrations?

2 A. Sorry. I don't see any numbers. I don't think
3 that they had any measures of concentrations to which the man
4 had been exposed. It says regarding fibrous, "Both varieties
5 of talc used are predominately platy in form, although each
6 contains a portion of fibers."

7 Q. This is one of the articles that you did not have
8 a chance to look at until it was delivered this morning secured
9 last night by Mr. Hays. Is that true?

10 A. That's correct.

11 Q. What is the next case study?

12 A. I think McLaughlin returns to the discussion of
13 this case in this 1955 article.

14 Q. Six years later he's discussing it again?

15 A. He's still talking about that case in a more
16 general review on dust diseases. He was a British factory
17 inspector physician. So that is in No. 50. Now, on we go.
18 Animal study by Schepers. All right. Here is a case.

19 Q. What is the exhibit number, please?

20 A. 53, published in 1956, Thorax, by A.C. Hunt, the
21 London Hospital Medical College. Ten years exposure, 57 years
22 old at the time of death. Coating lead accumulator plates with
23 talc.

24 Q. What kind of talc?

25 A. Clinical history, we do have some mineralogic

1 examination from Dr. Nagelschmidt no less. "X-ray defraction
2 diagram shows strong talc pattern, and a few weak kaolin lines,
3 and very faintly the strongest quartz line at 3.34 A. This
4 indicates a sample contained, apart from talc, less than a half
5 a percent of quartz, and perhaps two or three percent kaolin.
6 There was no evidence of the presence of tremolite."

7 Q. Do you know whether that was a fibrous or a
8 non-fibrous talc?

9 A. He does indicate that he had seen some lung damage
10 that looked like asbestos bodies. He says "Curious bodies
11 similar but not identical to asbestos bodies have been
12 described in most cases of talc pneumoconiosis." He says
13 referring to McLaughlin. He says they consist of a single
14 fiber with terminal rosettes but without intermediate beading.
15 They were present in this case, although in small numbers." So
16 they didn't find any tremolite in the analysis of the talc by
17 Dr. Nagelschmidt, who Dr. Nagelschmidt was a world class
18 mineralogist.

19 Q. But there were asbestiform bodies in the lung
20 samples?

21 A. But he had a few asbestos bodies in the lungs, or
22 things that looked like them anyway.

23 Q. All right.

24 A. Subsequent studies have shown that urban dwellers
25 all over the world have the same kinds of forms in their lungs.

1 Q. Is that discussed in that particular article?

2 A. No.

3 Q. This is just a gratuitous statement by
4 Dr. Castleman?

5 A. No. That's a statement based on literature
6 published study in 1963, but since this was written in 1956
7 this gentleman didn't have the benefit of that knowledge.

8 Q. I mean though, when you made that statement that
9 was not based on anything that you had in front of you; right?

10 A. Right.

11 Q. Please, go on.

12 A. So we're through with this case. Then there is
13 some textbooks. We have got three more cases by Dr. Seeler and
14 his co-workers in Cambridge, Massachusetts.

15 Q. Exhibit number, please.

16 A. 57. This is published in the Archives of
17 Industrial Health in 1959. Layout men in a factory
18 manufacturing rubber-coated cable.

19 Q. What's the year? Did you say '59?

20 A. Yes.

21 Q. What type of talc are we dealing with?

22 A. Pretty clean stuff. Says "Talc used throughout
23 the years by the men whose cases we are reporting was all from
24 a single mine in Vermont, and presumably was a fairly uniform
25 composition. It varied in grain size from one to 150 microns,

1 90 percent of the particles less than ten microns. Analysis of
2 the talc below 10 microns in size was reported as eight percent
3 talc, 68 percent dolomite, three percent magnetite, 16 percent
4 serpentine, and five percent other minerals. The free silica
5 content was reported to be less than a half a percent." There
6 isn't any reference to asbestiform materials or fibers, there's
7 no reference to tremolite or fibers that I can see.

8 Q. What are the conclusions with regard to exposure
9 to this what you call clean stuff?

10 A. Well, clean in the sense that it didn't appear to
11 have any reference to asbestiform fibers in the part that I was
12 looking at.

13 Q. What are the conclusions?

14 A. They found needle-shaped particles in the areas of
15 fibrosis. "X-ray defraction studies in our two case indicated
16 that doubly refractile needle-like particles were talc." And
17 they make reference to the fact that a number of authors remark
18 on the presence of asbestos-like bodies in the tissues which we
19 did not observe in our material." On Page 27. So that anyway
20 you can read this at your leisure.

21 Q. May I see it please?

22 A. (Witness produces document.)

23 Q. Your understanding is that this deals with
24 non-fibrous talc, Exhibit No. 57?

25 A. As far as I can tell. But I mean, you know, I

1 haven't looked at it as thoroughly as I might like to.

2 Q. It makes reference to the fact that talc merely
3 produces inert reactions? Is that comment made in the comment
4 in that particular article?

5 A. I am sorry, where are you reading from?

6 Q. I will just come around and look at it with you,
7 if I may.

8 A. Sure. Seems like they describe it in other terms.
9 Oh, yes. They are making reference to an earlier short term
10 animal study conducted by Miller and Sayers in the injection of
11 talc into peritoneal tissue, which unfortunately wasn't allowed
12 to stay in the tissues long enough to produce peritoneal
13 mesotheliomas. And these were studies that were conducted in
14 the 1930s. But as to their own findings, they say that, "Talc
15 must be regarded as a material which will cause pneumoconiosis
16 if a high concentration of the dust is inhaled for many years."
17 And they go on to reiterate that in a summary saying that,
18 "Lungs in both cases showed extensive fibrosis which did not
19 however show a specific pattern that might be of diagnostic
20 value." Apparently referring to the chest X-ray.

21 Q. Any other case studies?

22 A. I think the rest of this stuff is from the New
23 York State people.

24 Q. And those are studies that we have already
25 discussed?

1 A. Kleinfeld and co-workers, yes.

2 Q. All right.

3 A. Of course, we haven't discussed everything here.

4 Q. We will cover that.

5 To summarize, you have at least in English two studies
6 which deal with non-fibrous talc, one in 1947 and one in 1959;
7 right?

8 A. I can certainly recall two which were explicit on
9 that point. And there were others which we simply do not know.

10 Q. Now, the study in 1947 which is Exhibit 29,
11 indicated that the subject had minor symptoms; correct? Look
12 at Exhibit 29, please.

13 A. I don't have it here.

14 Q. Exhibit 29 is not there?

15 A. Here it is.

16 Q. Did you find it?

17 A. Yes, I have it here.

18 Q. The very tail end of the --

19 A. That is right. This individual, this individual
20 is mainly referred for evaluation because of the abnormal chest
21 X-ray picture, but the individual did not have, certainly
22 didn't have seriously overt symptoms of disease.

23 Q. So prior to 1959 we have no case studies of any
24 non-fibrous talc which appears to be causing problems in the
25 subject. Is that true?

1 MR. HAYS: Have we been distinguishing in
2 the early studies between fibrous and non-fibrous?

3 Q. (By Mr. Hinkle) The only studies that we can find
4 that make the distinction are the ones that I am talking about.

5 A. The problem is, of course, the doctors in many of
6 these cases simply didn't provide the information that we would
7 at this particular time like to look back and find. So, you
8 know, in a lot of cases incomplete information exists as to
9 whether or not it was fibrous or non-fibrous. And my
10 admonition that the worse case situation has to be taken into
11 account would apply. That is that someone reading it would
12 have to assume that unless it's very clear, that the case
13 reported does not result from a product similar to the one that
14 you are selling, you have to assume that maybe it has some
15 import for your product.

16 MR. PIERCE: Move to strike as unresponsive.

17 Q. (By Mr. Hinkle) If you would, please, show me any
18 article that you have in front of you that says that inhalation
19 of non-fibrous talc may be disabling in any way.

20 A. Again, they don't really put it in those terms in
21 most of these articles. They say inhalation of talc may be
22 disabling. In some cases they say inhalation of talc
23 containing fibers or tremolite may be disabling, or quartz.

24 Q. Is there any medical literature that you are aware
25 of, Dr. Castleman, that would say to a manufacturer of

1 non-fibrous talc it has been proven to the scientific community
2 that your product can cause disability in people who breathe
3 it?

4 A. I don't think there is anything that absolute in
5 the early literature.

6 Q. Well, in anywhere that you know of?

7 MR. HAYS: He's been confining his testimony
8 to early literature, and has not researched the later
9 literature. He stated that on the record.

10 Q. (By Mr. Hinkle) That is fine. Whatever you have
11 looked at anywhere, any time that would say to a manufacturer
12 or distributor of non-fibrous talc, your product may cause
13 disability. Do you see that anywhere?

14 A. If not earlier, certainly the report of Seeler and
15 his co-workers say that to me.

16 Q. What's the year on that?

17 A. This is the 1959 report where -- because others
18 had pointed out that fibers or fibrous talc might be worse than
19 non-fibrous talc, this researcher looked into that question
20 with respect to his own case, whereas had he seen the case 20
21 years earlier, he probably wouldn't have done so.

22 Q. You are talking now about Exhibit 57?

23 A. Right.

24 Q. Does Exhibit 57 indicate that the subject is
25 disabled?

1 A. We're talking about pathological findings.

2 Q. Is there any statement in there that the subject
3 is disabled?

4 A. I think these subjects were dead. But let me make
5 sure.

6 Q. All right. Is there anything in there that
7 indicates that the subject ever suffered from any disability by
8 reason of inhalation of talc?

9 A. Maximum breathing capacity in one case is given as
10 66 percent of a predicted value.

11 Q. Does it say whether the subject was a cigarette
12 smoker, Dr. Castleman?

13 A. No, I didn't see any reference to that.

14 Q. Does it say whether he was exposed to any other
15 chemicals or any other substances that might compromise the
16 lungs?

17 A. It doesn't indicate that he had -- Oh, hold it.
18 He worked as a coal miner in West Virginia for about four
19 years.

20 Q. That might account for lung impairment, might it
21 not, Dr. Castleman?

22 A. It might.

23 Q. All right.

24 A. I am not sure it would account for the type of
25 lung impairment that they found.

1 Q. What kind of lung impairment did they find?

2 A. Well, after they get through the fine print, it
3 says "Summarizing both the gross and histological findings in
4 this case, the pattern is one of a chronic, crippling
5 progressive disease of the lungs by scar tissue, injury and
6 distruction of blood vessels, dilatation of bronchi and alveoli
7 and slighter degrees of fibrosis and atelectasis throughout the
8 rest of the lung. The presence of large quantities of doubly
9 refractile material, except in the centers of oldest and
10 largest of scars, which appear to be the etiologic agents
11 responsible. Our diagnosis of the lymph nodes was one of
12 talcosis, anthracosis and benign reactive hyperplasia.

13 Q. What's anthracosis?

14 A. What you get from mining coal.

15 Q. That is what you get from mining coal. All right.
16 Go ahead.

17 A. Hard coal. Case two. And again, there is a lot
18 of medical information of very detailed nature. "In summary,
19 the pattern of the lung in the second patient was much like the
20 first, characterized by a progressive replacement of normal
21 lung parenchyma by scar tissue. There was narrowing and
22 ocollusion of the bronchi and bronchioles, and an obliteration
23 of large portions of both vascular and lymph channels."

24 Q. Does it say whether or not that particular patient
25 was a smoker, for example?

1 A. He had a chronic cough since 1910 when he had
2 pneumonia and emphysema. Doesn't sound like a smoker, but it
3 doesn't say.

4 Q. Excuse me, Dr. Castleman --

5 A. Doesn't say anything about whether he smoked.

6 Q. Pneumonia and emphysema doesn't sound to you like
7 conditions associated with smoking?

8 A. Well, he had pneumonia and emphysema, he had a
9 mild chronic cough since 1910 when he had pneumonia and
10 emphysema, which I think would have been when the man was quite
11 young.

12 Q. That doesn't sound like something associated with
13 smoking to you?

14 A. Well, the context is he had had a mild chronic
15 cough since 1910 when he had pneumonia and emphysema until
16 about 1954.

17 Q. I am trying to follow up on a comment that you
18 made gratuitously as you read that, that it doesn't sound like
19 a smoker to you.

20 A. I'll take that back. The more I look at this the
21 more I feel like that was not justified. I am not saying he
22 was or wasn't. I will take a neutral position on the subject
23 since the case report doesn't say anyway.

24 Q. Thank you, Dr. Castleman.

25 A. You wanted to know if he was a smoker. I don't

1 see anything about that. Was there anything else you wanted to
2 know?

3 Q. Do you know whether he was exposed to any other
4 agents that might have compromised his lungs?

5 A. Doesn't indicate that he was.

6 MR. HAYS: Can't we just let the article
7 speak for itself about agents?

8 THE WITNESS: Says, "He was engaged in various
9 unskilled occupations not involving unusual dusty
10 exposure for several years, and for 34 years in the
11 rubber plant." And then it goes on to make more
12 comments about --

13 Q. (By Mr. Hinkle) By the way, do you know what all
14 chemicals are involved in the manufacturing of rubber tires?

15 A. No, I don't.

16 Q. Do you know all of the dusty agents to which
17 workers are exposed in the manufacturer of rubber tires?

18 A. No, I don't.

19 Q. Go ahead.

20 A. Describing a condition they say, "The pulmonary
21 pathology in the two patients that we studied and those
22 previously reported is characterized by what is presumably a
23 progressive replacement of normal lung tissue by fibrous tissue
24 without any specific pattern that could be regarded as
25 diagnostic for talc pneumoconiosis."

1 Q. And to go back to the point that we were making
2 earlier, prior to 1959, there is no case history reporting any
3 disability associated with the inhalation of non-fibrous talc
4 that you have found and reviewed. Is that true?

5 A. I haven't found any article that is explicit on
6 that point until this one in terms of saying, you know, as I
7 have tried to indicate, relatively few of the articles give us
8 the kind of information we would like to have as far as whether
9 it's fibrous, whether it has tremolite. These doctors are not
10 mineralogists, not very many have had the benefit of Dr.
11 Nagelschmidt to help them examine the material that caused the
12 disease.

13 Q. All I want to know, Dr. Castleman is, there is one
14 case history that you find prior to 1959 that deals with
15 non-fibrous talc; right?

16 A. That explicitly deals with non-fibrous talc.

17 Q. That deals with talc to the degree that we know
18 whether or not it's fibrous or non-fibrous?

19 A. And which caused very serious disease, yes.

20 Q. Well, the one that we know before 1959 says that
21 the symptoms are minor; right?

22 A. Right, says that it did cause an abnormal chest
23 X-ray, but up until the time of the report no really serious
24 symptoms.

25 Q. All right. Do you know whether or not there are

1 articles concerning the health hazards associated with the
2 breathing of flour, for example?

3 A. I have heard of baker's asthma.

4 Q. You have heard of that then?

5 A. Yes.

6 Q. Do you know whether or not there are reported
7 articles concerning the health hazards associated with the
8 breathing of sugar?

9 A. I can't recall. Sugar cane, yes, I've heard
10 something about sugar, maybe it's not the sugar, but some of
11 the other waste material that is associated with the processing
12 of the sugar plants.

13 Q. Have you heard that there are health hazards
14 associated with the breathing of the dust in a cotton gin for
15 example?

16 A. Yes.

17 Q. You have heard that there are health hazards
18 associated with breathing the dust in a wheat bin, for example?

19 A. Farmer's lung, yes.

20 Q. Heard about that?

21 A. Well, I don't know about wheat, but I have heard
22 of farmer's lung.

23 Q. Well --

24 A. Generally things that are stored in silos can be
25 composed and cause high presence of nitrous oxides and stuff,

1 if the farmer walks in and doesn't realize it he can really get
2 clobbered.

3 Q. Are you generally familiar with the fact that any
4 kind of dust can be concentrated to the degree that if you
5 breathe it it will hurt you?

6 A. I think that that's been a general assumption in
7 the field of industrial health, that some dusts are more
8 pernicious than others, but almost any dust can cause ill
9 effects if exposures to it are sufficiently gross.

10 Q. Do you know of any substance, any material that
11 you would say is less pernicious that can be employed in the
12 rubber industry to do the same job as talc?

13 A. I am not here as a technological expert on the use
14 of talc and similar agents in the rubber industry. I think you
15 need to consult with, you know, rubber processing engineers to
16 get answers to questions like that. I don't even know what the
17 alternatives to talc that would be available are.

18 Q. I take it then that the answer to my question is
19 no, you don't know of anything?

20 A. I am just not the right guy to ask. I don't know
21 what the alternatives to talc are in that kind of a process,
22 much less how safe or unsafe they are. Are you telling me that
23 the things you have just listed are the alternatives that could
24 be listed instead of talc?

25 Q. Doctor, it's a wise man who knows what he doesn't

1 know. And if you don't know whether there is anything that can
2 be used as a substitute for talc, you can say that.

3 A. I have.

4 Q. Thank you.

5 A. I don't know what is available as a substitute in
6 talc and rubber processing. I am not here as a rubber
7 processing technology authority.

8 Q. Thank you, Dr. Castleman. Now, have you disclosed
9 to us all of the opinions that you have with regard to talc?

10 A. I think so.

11 Q. All right.

12 A. Or at least, I mean, it's always possible somebody
13 would ask me a question that would elicit an opinion that I
14 haven't given you, but I have in good faith tried to tell you
15 what I think would be asked of me in connection with these
16 cases.

17 Q. Now, I understand that you are going to be asked
18 some questions concerning asbestos. And with the exception of
19 questions concerning asbestos, have you complied with the
20 request made upon you by plaintiff's counsel with regard to
21 expressing opinions in this case?

22 MR. HAYS: There are a couple of documents on
23 clay that are involved in this.

24 Q. (By Mr. Hinkle) Well, let me ask, Doctor, are you
25 holding yourself out today as an expert in the development of

1 medical and scientific knowledge concerning the possible
2 hazards of exposure to clay?

3 A. I have seen reference to hazards of clay and clay
4 products in the literature, but I do not consider myself an
5 expert on that.

6 Q. All right. Then having made that statement, do
7 you agree that with the exception of the questions that you are
8 about to be asked about asbestos that you have stated the
9 opinions that you intend to offer in the trial of these cases
10 in Oklahoma?

11 A. I believe I have.

12 MR. HAYS: We will ask him some questions on clay
13 probably at trial.

14 MR. HINKLE: Well, I will tell you, if he is not
15 an expert and he's not prepared to testify to it today,
16 then we're going to strenuously object to it. These
17 cases have been on file now for two years, and the
18 plaintiffs have had every opportunity in the world to
19 locate experts and cultivate those experts and prepare
20 those experts, and we have come a thousand miles to take
21 this man's deposition, and if plaintiff's intend to
22 try to create an expert in a field where he's not an
23 expert at some later date, we are going to strenuously
24 object to it.

25 MR. HAYS: Well, he does have information about

1 talc literature.

2 MR. HINKLE: Well, I have got information about
3 the Shah of Iran too, but that doesn't make me an
4 expert.

5 MR. HAYS: That is what he's here for, to tell
6 you when the literature was there and what was there.

7 MR. HINKLE: I am not going to inquire into all
8 the areas where he's not an expert. If he is not an
9 expert as he says, there is no need for us to waste all
10 this time.

11 MR. HAYS: His definition of what an expert is
12 and mine are two different things, and I think he is
13 an expert in clay.

14 MR. CROSBY: We will stipulate to that.

15 MR. HINKLE: I think that the court will be
16 in a pretty good position to decide.

17 MR. HAYS: Well, I intend to ask him some
18 questions on clay on my cross about the articles you
19 requested that were brought here, may be not you, but
20 one of the counsel requested that. They are here, and
21 I am going to inquire about them.

22 MR. CROSBY: Before you go into something else,
23 let me adopt your statement about opinions of this
24 witness in all matters, but particularly that relating
25 to matters that he is not prepared to opine on at this

1 time.

2 MR. HOOD: We join in that.

3 Q. (By Mr. Hinkle) Before I yield the witness, let
4 me ask the witness whether you agree with this statement as of
5 1976. "Possible adverse health effects from intermittent use
6 of these product--" talking about talc products, especially
7 those that contain asbestiform and fragmented anthophyllite and
8 tremolite, chrysotile, quartz and trace metals are presently
9 unknown and warrant evaluation." Do you agree with that?

10 MR. HAYS: Show him what you're referring to.

11 MR. HINKLE: I just want know if he agrees or
12 disagrees with that statement.

13 MR. HAYS: Show him the article and let him take a
14 look at it.

15 MR. HINKLE: All I want to know is whether he
16 agrees with that statement.

17 THE WITNESS: The statement sounds like the
18 ultimate product of timidity and bureaucracy, and
19 could very well have come from some government report.

20 MR. HAYS: I want him to look at the article. I
21 request that he be allowed to look at the article and
22 review it, and not be required to agree to something
23 taken out of context, read in the record to be pulled
24 out for a motion for summary judgment.

25 MR. HINKLE: I am not going to ask him to comment

1 on the article. I just want to know his thoughts with
2 regard to that statement. And if he is taking the
3 position that that is a timid and bureaucratic
4 statement and he doesn't agree with it, that is all
5 right with me.

6 Q. (By Mr. Hinkle) Is that your position?

7 A. Is that supposed to be something that was said in
8 1976?

9 Q. Yes, sir, 1976.

10 A. It just sounds like whoever wrote that was writing
11 with what would have to be described as an abundance of caution
12 in attributing health hazards to talc, given the body of
13 knowledge that existed, by 1976 which was really substantial.

14 Q. So you disagree with that statement then?

15 A. I've answered your question.

16 Q. I am not sure that I heard that. You said that he
17 was acting with an abundance of caution which may mean he's
18 right or wrong, or you are not willing to take a position. Do
19 you agree? Disagree? Or just not going to take a position?

20 A. I have answered your question.

21 Q. Dr. Castleman, I don't think you have. I am going
22 to read the question to you again.

23 MR. HAYS: I want to request he be allowed to
24 look at the article.

25 MR. HINKLE: He doesn't need to look at the

1 article.

2 MR. HAYS: Yes, he does.

3 MR. HINKLE: No, he doesn't, not to answer
4 that question. Listen to this question, Dr. Castleman,
5 and tell me whether you can agree with this or disagree
6 with it, or whether you refuse to take a position on
7 this.

8 MR. HAYS: Why are you hiding the article from
9 him.

10 MR. HINKLE: I've got my reasons.

11 MR. HAYS: Let's hear the name of it. What's the
12 article?

13 MR. HINKLE: You don't need to know. All I want
14 to know is whether he agrees with that statement.

15 MR. HAYS: Who is it from? What's the big secret?

16 Q. (By Mr. Hinkle) I am going to read this to you,
17 and you tell me what your response is. "Possible adverse
18 health effects from intermittent use of these products --"
19 referring to talcum powders, "Possible adverse health effects
20 from intermittent use of these products, especially those that
21 contain asbestiform and fragmented anthophyllite, and
22 tremolite, chrysotile, quartz and trace metals are presently
23 unknown and warrant evaluation.

24 A. Absent any context, I don't know that I could
25 agree or disagree or otherwise comment on it, because the word

1 intermittent there is -- well, it's, you know, it just leaves
2 the whole thing hanging. And I don't know with what it's
3 hanging from. If I can't see the context, I've got no idea
4 what those authors or that author possibly means by
5 intermittent. Does he mean an hour? A month? Or do they mean
6 three hours a day?

7 Q. So I take it you're just not able to say I agree
8 or disagree; correct?

9 A. I am not able to answer a question posed in the
10 manner that you have posed it to me, no.

11 Q. I don't know that I would -- let me conclude with
12 this, Dr. Castleman. With regard to the state of the medical
13 knowledge concerning the dangers of talc and exposure to talc,
14 would you agree that practicing physicians would be as able as
15 you to make statements in that regard? If you could find it,
16 they could find it; right?

17 A. About the history of the knowledge?

18 Q. Yes.

19 A. Or about what is known today?

20 Q. Yes.

21 A. Certainly practicing physicians are capable of
22 reading the same information or finding the same information or
23 using medical libraries, looking stuff up in medical textbooks.

24 Q. As a matter of fact, you yourself did not assemble
25 the materials we have been discussing. Those were assembled

1 for you; correct?

2 A. Well, I have really directed the assembling of all
3 this material.

4 Q. You sent someone to the medical library and told
5 them what to get for you?

6 A. I told them to get specific references, and I told
7 them exactly how to use those references in a very
8 straightforward manner, looking into bibliographies of those
9 articles and getting other references. And then I have gone
10 and additionally looked at additional material that that person
11 didn't bring back. I mean the whole thing has really been
12 directed by me. It's not as if somebody served this stack of
13 articles up to me on a silver platter. I am sure you realize
14 that.

15 Q. The sources that you went to to get this
16 information, they are readily available to any physician who
17 cares to look. Would you agree?

18 A. Any physician, businessman, sure.

19 Q. Lawyer?

20 A. Medical libraries are open. I can't imagine a
21 medical library turning anyone away who has a legitimate reason
22 for going to them.

23 Q. A lawyer or a high school student, if they know
24 where to look, can go get this information?

25 A. I don't know -- a high school student might need a

1 little bit of help. But yes, the information has been publicly
2 available. Most of these articles are in the English language
3 and come from journals and textbooks that are available in
4 major cities across this country.

5 Q. You wouldn't quarrel with a physician, in fact a
6 physician who has published in this area, that is the effects
7 of talc in the chest, you wouldn't quarrel with a physician who
8 said that there was no consensus in the medical community until
9 at least 1984 with regard to the effects of talc in the chest,
10 would you?

11 A. Well, I guess it really depends exactly how he
12 says that.

13 Q. Let me phrase it to you as close to his words or
14 as close to his response to the question as I can. The
15 question was put to him: "Was there a consensus in the medical
16 community prior to 1984 concerning the effects of talc in the
17 chest?" And his answer was: "No."

18 MR. HAYS: I am sorry. Would you restate that
19 for me again?

20 Q. (By Mr. Hinkle) Sure. The question was --

21 MR. HAYS: To who?

22 Q. (By Mr. Hinkle) To a physician who has written on
23 the subject, your witness, a witness for the plaintiff.

24 MR. HAYS: Which witness?

25 MR. HINKLE: Dr. Feigin.

1 MR. HAYS: Said what?

2 Q. (By Mr. Hinkle) The question was put to him:
3 "Prior to 1984 was there a consensus in the medical community
4 concerning the effects of talc in the chest?"

5 MR. HAYS: He couldn't speak to the medical
6 community. He limited it to radiologists, and he said
7 1950. I am going to challenge -- in the early 1950s.
8 I'm going to challenge your statement on that.

9 MR. HINKLE: If I am wrong, I'm wrong.

10 MR. HAYS: Well, you are wrong.

11 MR. HINKLE: I may be.

12 Q. (By Mr. Hinkle) Assume for purposes of this
13 question that I'm correct.

14 A. I'll assume there is some doctor who has published
15 some article on talc who has said whatever you are going to
16 say. Go ahead.

17 Q. Are you going to quarrel with that doctor's
18 conclusions, if that's what he says?

19 A. Well, again, I would want to know the context. Is
20 he talking about talc as a mineralogically pure substance which
21 may or may not have ever been used in a factory in the United
22 States? Or is he talking about the kind of materials that have
23 been used in industry and have been the subject of many medical
24 and scientific reports? First of all, the reason I have to ask
25 you this is because the question itself doesn't include that

1 information.

2 Q. Let's me put it to you this way then. What talc
3 products would we be discussing in order for you to agree with
4 that statement?

5 A. Talc products generally used in industry which
6 have been the subject of the medical literature on talc, I
7 would think.

8 Q. Meaning that there was no consensus in the medical
9 community prior to 1984?

10 A. On what?

11 Q. Concerning the health hazards, the effects of talc
12 on the chest?

13 A. I think that, you know, there was something at
14 least approaching a consensus of the people writing on this by
15 the 1950s that talc exposed workers sustained lung damage, and
16 some of them sustained a little bit, and some of them get
17 killed. And the dispute since that time has been, Well, how is
18 it that some of these people get really hurt much worse than
19 others, even though they seem to be exposed to comparable
20 concentrations of dusts which are generally referred to as
21 talc.

22 Q. So I take it that you would not then agree with
23 that statement?

24 A. The statement, by the time we get through defining
25 terms, maybe I could agree with it.

1 Q. Well, then I gave you the opportunity to tell me
2 any talc product about which that that would be true.

3 A. The only talc product about which such a statement
4 might be approaching true would be something that would be like
5 a mineralogically pure talc of a type which had not been the
6 subject of medical reports previously where this material is
7 looked at for its own effects independent of other types of
8 minerals with which talc is usually found.

9 Q. And then any other type of talc, you would not
10 agree that that statement would be true for any other type of
11 talc?

12 MR. HAYS: I am not going to let him be sucked
13 into answering a question that is set up like that.
14 First of all, he had stated that he did not do an
15 exhaustive research of later articles on talc. He
16 did early articles in order to establish the
17 availability of literature at an early point in time
18 beginning back in the '30s, I believe.

19 MR. HINKLE: Are you instructing --

20 MR. HAYS: I am clarifying what's happened here.
21 You are saying some doctor has made a statement, and
22 he's my witness, that nobody knew about pure talc and
23 its causing any problems until 1984. And I am telling
24 you that is not so, and he's not testified about that.

25 MR. HINKLE: Are you done?

1 MR. HAYS: Maybe, maybe not. Let's see what you
2 continue with. I don't think that is fair.

3 MR. HINKLE: Well, Jim, I really don't care
4 whether you think it's fair or not, because I do think
5 it's fair.

6 MR. HAYS: You have got to make a fair
7 representation of what a witness said. And I don't
8 think that's accurate.

9 MR. HINKLE: Well, then you and I can discuss
10 this in more detail when we get the transcript back.
11 But let me make sure that the Doctor understands my
12 question.

13 Q. (By Mr. Hinkle) That the statement made that
14 prior to 1984 there was no consensus in the medical community
15 concerning the effects of the talc in the chest. That
16 statement might be true about some theoretically absolutely
17 pure talc, which has never been dealt with in the literature
18 before; right? Is that what you said?

19 A. In terms of human case report data.

20 Q. Okay.

21 A. I think that that might conceivably be true,
22 because the types of talc that have been the subject of all
23 these reports were, mineralogically speaking, different types
24 of mixtures.

25 Q. Now, with reference to that statement again, that

1 is that prior to 1984, there was no consensus in the medical
2 community concerning the effects of talc in the chest, that
3 statement would not be true as to any other type of talc that
4 you know of; right?

5 A. I really do find it hard to follow some of these
6 questions you are asking me. I realize you have got something
7 in mind, but I can't for the life of me even follow what it is
8 you are asking me.

9 Q. Try to just listen to the question.

10 A. I am trying.

11 Q. And frame your response to the question. Here is
12 the statement. Prior to 1984 there was no consensus in the
13 medical community concerning the effects of talc in the chest.
14 That's the statement.

15 MR. HAYS: That is your hypothetical statement?

16 MR. HINKLE: That is my hypothetical statement.

17 MR. HAYS: And you are saying it is a fact, but
18 you're saying it is a hypothetical, and you're asking
19 him to respond to a hypothetical?

20 MR. HINKLE: This is something that I have
21 been told.

22 Q. (By Mr. Hinkle) I understand that you would agree
23 to that statement with reference to some theoretical talc that
24 has never been dealt with in the literature before that is
25 absolutely pure and so forth and so on. Right? That might be

1 true about such a product if one existed; right?

2 MR. HAYS: I can't follow that line of
3 questioning. I don't know if the Doctor can or not.
4 Are you still dealing with a hypothetical?

5 Q. (By Mr. Hinkle) Isn't that what you said,
6 Dr. Castleman?

7 A. I am looking --

8 MR. HAYS: Only in response to a hypothetical
9 did he answer that question. I don't want that
10 boot strapped into something that is not a hypothetical,
11 and I get a feeling that it's kind of fudging over
12 the edge a little bit. I may be wrong, but there seems
13 to be a fudge factor I'm picking up on.

14 MR. HINKLE: You are too sensitive, Jim.
15 It's a straightforward question.

16 MR. HAYS: Boy, if that is straightforward,
17 you have got a new definition of straightforward.

18 Q. (By Mr. Hinkle) Did I or did I not accurately
19 paraphrase your response to that question, Dr. Castleman?

20 A. I believe that you have done a reasonable job of
21 that.

22 Q. Let's move to the next one.

23 MR. HAYS: Let him finish his answer.

24 THE WITNESS: I do not see in the scientific
25 literature any cases of individuals -- I don't know,

1 I don't think I see, maybe there is some.

2 MR. HAYS: Are you distinguishing that from
3 pure talc that's been discussed earlier in the
4 literature which we've commented on?

5 Q. (By Mr. Hinkle) Will you now respond to this
6 question? With the exception of the theoretically pure talc
7 that has never been dealt with in medical literature, will you
8 agree or disagree with this statement: Prior to 1984 there was
9 no consensus in the medical community concerning the effects of
10 talc on the chest?

11 MR. HAYS: I am going to object to that question.
12 That is impossible to answer. A hypothetical and a
13 hypothetical. It's too complex.

14 MR. HINKLE: It's a statement. He can agree with
15 it, or not agree with it. That's all I'm asking, Jim.

16 MR. HAYS: He can say he has no opinion, or
17 doesn't understand the question or whatever he wants to.
18 I just think that is unfair. A hypothetical and a
19 hypothetical is the way I see that. You are asking if
20 somebody has said that there was a talc that we really
21 don't think exists, that might exist --

22 Q. (By Mr. Hinkle) Let me do it this way. I am
23 making the statement, Dr. Castleman, today, that prior to 1984
24 there was no consensus in the medical community concerning the
25 effects of talc in the chest. Do you agree with me? Or do you

1 disagree with me?

2 A. I would say yes and no. I would say yes, there
3 was a dispute about how harmful talc in a mineralogically pure
4 sense how harmful it was; but no, there was not that much of a
5 dispute about the fact that talc as used in industry has caused
6 disease in a number of countries, and quite a bit of it in the
7 United States. And that that has been reported both for
8 fibrous -- has been reported for both fibrous and non-fibrous
9 talcs, and certainly before 1984.

10 Q. With regard to the way that these medical articles
11 are received by the medical community, would you defer to the
12 opinions of a board certified radiologist?

13 A. Maybe, maybe not.

14 Q. What type of board certified radiologist maybe
15 might you defer to?

16 A. Well, I mean I've been asked questions like that
17 in the context of asbestos, for example. And I honestly don't
18 believe that there is a doctor living who is more qualified to
19 talk about, or at least certainly not on the basis of board
20 certifications, no doctor on the basis of qualifications and
21 certifications would be more qualified than I am to talk about
22 how the literature on asbestos was received, because I have
23 written my doctoral thesis about that, and I've investigated
24 that for a number of years.

25 Q. I am not asking you about asbestos. There are

1 plenty of people who are going to ask you about that.

2 A. Let me just finish.

3 MR. CROSBY: I move to strike the initial response
4 as nonresponsive, and in a continued effort to
5 volunteer information that is nonresponsive.

6 Let's move on to something that is being asked.

7 THE WITNESS: I am answering the question, and
8 I'm going to finish my answer.

9 MR. HAYS: That was responsive, and you answer the
10 question the way you feel you need to.

11 THE WITNESS: This is simply not a matter
12 that is simply measureable in terms of credentials
13 and board certifications. Board certifications don't
14 make a doctor an authority on the history of how medical
15 information was received on the hazards of talc. No
16 board certification is going to impress me at all about
17 whether a doctor was aware of that. I would be as much
18 impressed if that doctor was a participant in the arena
19 of the development of medical and scientific knowledge
20 like Dr. Kleinfeld was for years. That is the kind of
21 person who would probably be able to give us the best
22 insite on how a lot of this information was received,
23 not only by the scientific community, but by the medical
24 and industrial community. And that is not a matter of
25 board certification. That is a matter of being active

1 in the field that we're talking about.

2 Q. (By Mr. Hinkle) So if someone were active in the
3 field and had contributed to the development of the scientific
4 knowledge and had made notable contributions to the literature,
5 you might be willing to defer to that board certified
6 radiologist with regard to how these medical articles were
7 received by the medical community. Is that a fair statement?

8 A. Yes, certainly covering time that the individual
9 was involved in the research, not necessarily the time
10 preceeding it. I mean, if this is somebody who came along in
11 the 1980s, that doesn't necessarily give them tremendous
12 insites about what was going on in the 1930s and '40s.

13 Q. Would you agree with me that a board certified
14 pathologist who has made significant contributions to the
15 medical literature and to advancement of knowledge in this
16 field would be someone who would be in a better position to
17 evaluate the pathological evidence than you would be?

18 A. Again, are we talking about the history of the
19 development of knowledge about talc as a hazard? Or are we
20 talking about the pathology of an individual case?

21 Q. Both.

22 A. In the latter case, I would defer to a pathologist
23 in an area which is purely a matter of pathology.

24 In the former case, again it just depends on the nature
25 and extent of the person's involvement in being involved in the

1 field and reading about the kinds of stuff that was going on
2 over a period of history that we're interested in.

3 Q. Would you agree with me that a pathologist would
4 be in a better position to evaluate the merit and shortcomings
5 of these various studies that we have been discussing?

6 A. In the case of some of the studies, a pathologist
7 who has contributed in the field of talc pneumoconiosis
8 certainly might be able to pick up shortcomings and limitations
9 in some of these articles that I might not see.

10 Again, I am not here to testify about the truth
11 contained in the articles themselves. I am here to testify, as
12 I understand it, about the notice to manufacturers and sellers
13 of talc, that people back in the '30s and '40s and '50s and
14 '60s and '70s that thought talc was deadly stuff, or at least
15 dangerous stuff.

16 Q. You have been working since Friday to perfect your
17 expertise in the field of the development of medical and
18 scientific knowledge as to the hazards of talc?

19 A. I have been working since 1970 and '71 off and on
20 to perfect my knowledge in the field of the hazards of talc.
21 And one of the exhibits here is a 1972 letter to the Food and
22 Drug Administration to try and limit the use of talc in certain
23 kinds of products.

24 Q. These articles that you have been referring to as
25 the basis for the notice that you mentioned to the

1 manufacturers was assembled and delivered to you some Friday
2 and some today; correct?

3 A. Some of it's been accumulating on my desk for some
4 time. Mr. Edholm has been sending me things over a period of
5 weeks, if not months. But it's true, I haven't sat down and
6 examined the material, and I am making no, you know, I am not
7 disputing that. I haven't really sat down and tried to examine
8 this as a continuous body of knowledge in the manner that we
9 have been discussing today until the last week or so.

10 Q. You are aware that there are individuals in this
11 country who have been spending years and years to follow,
12 document and contribute to the development of scientific and
13 medical knowledge as to the effects of talc, you are aware of
14 that?

15 A. Yes, sure.

16 Q. You were asked to do a survey concerning the early
17 knowledge of the dangers associated with exposure to talc?

18 A. Yes.

19 Q. What does that mean in terms of years?

20 A. Well, in my mind it would mean prior to the late
21 1970s.

22 Q. All right.

23 A. Particularly prior to 1970.

24 Q. Have you seen any medical literature which
25 establishes a definite link between inhalation of fibrous

1 talc -- Well, let me ask it this way first. Have you seen any
2 medical literature which in your mind establishes a definite
3 link between inhalation of non-fibrous talc and cancer?

4 A. Not cancer, I don't think.

5 Q. Okay.

6 A. Again, I really feel that I have not done an
7 exhaustive review of the literature that would deal with that.
8 I had only begun to look at that when I quit my review on
9 history of knowledge about the hazards of talc. I think the
10 information you are asking about would mainly be the subject of
11 publications over the last 12 to 13 years.

12 MR. HAYS: And again, you are dealing with a
13 definition, that as I understand it, was not available
14 at certain periods of time in the history of the
15 literature of talc.

16 MR. HINKLE: Is that a statement by you or an
17 inquiry by you?

18 MR. HAYS: We discussed it before, and you say
19 non-fibrous talc, and the import of your question is
20 there was nothing dealing with that particular product
21 in the literature pertaining to cancer prior to a
22 certain time when the distinction between fibrous
23 and non-fibrous was not made at a certain time. It was
24 not made until later in the history of medicine
25 concerning talc disease. So it's misleading from that

1 standpoint.

2 MR. HINKLE: You may be surprised when you take
3 some of the experts of some of the defendants in
4 this case.

5 MR. HAYS: I won't be surprised at anything your
6 experts say.

7 Q. (By Mr. Hinkle) So do I understand then that the
8 answer to the question is that you are not aware of any medical
9 literature which links in your mind inhalation of non-fibrous
10 talc and cancer; true?

11 A. That is true. And with the caveat that I haven't
12 really looked for information that would cover the period of
13 the late '70s onward.

14 Q. Are you aware of any information, medical
15 information, which makes to your mind the link between
16 inhalation of fibrous talc and cancer?

17 A. Oh, sure. Kleinfeld studies.

18 Q. The year, do you recall?

19 A. The first one was 1967.

20 Q. Anything prior to 1967?

21 A. I don't think so.

22 MR. HINKLE: I believe, Dr. Castleman, that
23 is all that I have at this time.

24 THE WITNESS: I am glad we may be finished
25 with talc today.

1 MR. CROSBY: Before we get to the next talc
2 person, I've look for the Food and Drug letter, can
3 you give me an exhibit number so I can pull that and
4 be reading it if there are other talc questions?

5 MR. HAYS: I have 4:57.

6 MR. WAGNER: I just a few questions.

7 THE WITNESS: Let's have it.

8
9 CROSS EXAMINATION

10 BY MR. WAGNER:

11 Q. First of all, you have testified with regard to
12 reviewing literature with regard to certain subjects. Is there
13 medical literature pertaining to the exposure of workers in
14 rubber or tire plants with regard to the exposure to carbon
15 black?

16 A. There probably is, but I haven't looked for it.

17 Q. All right. You stated earlier you are not
18 familiar with the major components or major products that go
19 into making tires?

20 A. Well, I'm not familiar with all the components in
21 the products, I think is what I said. I have certainly heard
22 of carbon black being used in tire manufacturing.

23 Q. Sure. My question, sir, is: Have you made any
24 inquiry or has anyone ever advised you with regarding to what
25 type of products workers in tire plants may be exposed to on a

1 more frequent or a greater degree than they are to talc?

2 A. I think it just depends on where in the plant the
3 worker is employed. That some workers are going to be more
4 exposed to some things, and others are going to be more exposed
5 to others. It just depends on their particular job and
6 classification and location in the factory.

7 Q. I take it that prior to -- let me ask you
8 directly, sir. Prior to the start of this deposition had you
9 ever held yourself out to be an expert with regard to talc?

10 A. No. Although I have been involved in trying to
11 get government regulations of talc exposure to the public
12 controlled since 1972.

13 Q. Would it be a fair statement to say you have been
14 involved in quite a few different products, types of things
15 with regard to trying to get the government to control it?

16 A. Right, yes I have, primarily carcinogens.

17 Q. In this regard, how many -- or can you tell me
18 about what types of products you have testified with regard to
19 as being an expert that we know that you have testified in the
20 past with regard to asbestos material, and likewise that we now
21 know that you are testifying here as an expert with regard to
22 talc, have you testified with regard to other such products?

23 A. No, not in civil proceedings. Perhaps with the
24 possible exception of dye intermediates in one case, in a case
25 involving DuPont. But it was also an asbestos case.

1 Q. All right. As far as you recall, you have never
2 held yourself out to be an expert except in the items we have
3 just mentioned here; is that right?

4 A. Yes, that's correct. Well, in civil proceedings.
5 I mean, obviously I have been involved in administrative rule
6 making and federal regulations of a whole host of chemicals and
7 other products. But in terms of civil litigation the
8 limitation would be as you have expressed. There are experts
9 and experts, and it's just a question of what you mean by an
10 expert, and I just want it to be clear that we're talking about
11 experts in the context of expert witnesses in civil litigation.

12 MR. HAYS: I have got 5:01.

13 MR. WAGNER: I thought you meant I had three
14 minutes rather than three questions.

15 MR. HAYS: You did have three minutes. Have you
16 got another question?

17 MR. WAGNER: I'll pass the witness. Thank you,
18 Doctor.

19
20 (Whereupon, the deposition proceedings were concluded
21 for the day, to resume at 9:00 on July 7th.)
22
23
24
25

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OKLAHOMA

Plaintiff,)
)
)
vs.) No. M-1417
)
)
ARMSTRONG WORLD INDUSTRIES,)
INC., VERMONT TALC COMPANY,)
et al.,)
Defendants.)

COPY

VOLUME II

OF THE DEPOSITION OF BARRY CASTLEMAN

on behalf of the

Defendants

on July 5th, 6th and 7th 1989

in Baltimore, Maryland

REPORTED BY: Marjorie Parker Miller, C.S.R.

CROSS EXAMINATION

BY MR. GOSS:

Q. Dr. Castleman, you had testified yesterday when you gave us a summary of your opinion that by the 1950s talc manufacturers should have taken certain steps to inspect for potential hazards, as I recall, was a portion of your summary. What were those steps that a manufacturer of talc should have taken to inspect for hazards?

A. Well, they could have used the means at their disposal to determine whether their product was a health hazard, and that would be by conducting animal studies such as had been done at the Saranac Laboratory in the late 1930s and the early 1940s.

They certainly could have done medical monitoring of their longest exposed employees. They could have gotten in touch with some of their customers who had been purchasing their material for a long time and engaged in the discussion about whether medical monitoring of workers in those plants was showing any lung disease. That sort of thing.

Q. You had also mentioned in your earlier testimony that a mineralogical analysis of talc should have been performed. Is that also one of the things that should have been undertaken by a manufacturer of talc?

A. Yes, I think so. Although one would assume they did that in the normal course of business for reasons having

1 nothing to do with health effects. But sure, they could
2 certainly have looked at their products in the light of
3 developing medical knowledge that was pointing to certain
4 constituents of industrial talc being more worrisome.

5 Q. So they should have analyzed their talc to
6 determine whether it contained substances such as tremolite?

7 A. Yes, substances such as those which were being
8 name in the literature as more worrisome aspects of industrial
9 talcs.

10 Q. Those substances included tremolite, and what
11 other substances were named in the literature?

12 A. Well, the literature named tremolite, the
13 literature named fibers or abestiform fibers generally, and the
14 literature referred to silica.

15 Q. Anything else?

16 A. Those are the things that stand out in my memory
17 as the things that were mentioned, to the extent that attention
18 was called to specific constituents of the talc, aside from the
19 so-called pure mineral talc itself.

20 Q. I would like for you to enlighten me about these
21 animal studies that you say should have been performed. What
22 type of animal study would you have conducted had you been a
23 talc manufacturer in the 1950s?

24 A. Product manufacturers could have exposed animals
25 to inhalation of the talc, sufficient numbers of animals

1 exposed for basically lifetime inhalation studies.

2 Q. Perhaps you didn't understand my question. I am
3 not asking what they could have done. I am asking what you
4 would have done had you been a talc manufacturer in the 1950s,
5 what type of animal study would you have performed?

6 A. That is the kind of study that I would have
7 performed.

8 Q. How many animals -- Well, first of all, what type
9 of animal would you choose?

10 A. I would have consulted with the experts at Saranac
11 Lab or some other comparable institution and asked them what
12 they thought was the most appropriate animal model.

13 Q. And how many animals would you expose the product
14 to?

15 A. I would have consulted the experts on that as
16 well, if I were a talc manufacturer.

17 Q. Do you know if any experiments on talc were ever
18 done by any laboratories such as the Saranac Lab on talc?

19 A. Yes, there were some studies done.

20 Q. When did those studies begin?

21 A. The Saranac Lab did some studies between 1937 and
22 1941 according to Dr. Scheper's report.

23 Q. But you are stating that as of the 1950s the talc
24 manufacturers should have conducted additional studies because
25 those were not conclusive?

1 A. Well, the studies that were done by Schepers were
2 for one talc, and different manufacturers were selling
3 different products called talc, so I don't think that the
4 studies that were conducted would have necessarily told you
5 everything you wanted to know about all the talcs that were
6 being sold in this country.

7 Q. What type of medical monitoring would you have
8 performed had you been a talc manufacturer in the 1950s?

9 A. Well, a standard sort of thing for industries
10 handling potentially hazardous dusts was first of all, a
11 pre-employment physical. This was done as a business matter to
12 prevent the hiring of people who already had sustained lung
13 damage from dust and who might in the course of time file
14 compensation claims. And then periodic medical monitoring
15 including chest X-ray, clinical examinations, pulmonary
16 function tests, such as were reported in the literature in
17 describing adverse effects of talc during the period of time of
18 the 1950s.

19 Q. How often would these periodic medical
20 examinations be done?

21 A. Every two years, or every two or three years. The
22 railroad medical doctors had their own protocol for doing that
23 with fibrogenic dusts which were published in the proceedings
24 of the medical section of the American Association of Railroads
25 in the early 1950s.

1 Q. Do you know whether the tire plants had any such
2 protocols for periodic medical exams?

3 A. I don't know.

4 Q. Well, you are aware of the Firestone study that
5 was done in 1948 or 1949, are you not?

6 A. Yes, well, the one we discussed yesterday.

7 Q. The Hogue and Mallette study?

8 A. Yes.

9 Q. So Firestone did undertake to determine the effect
10 of talc on its workers, did it not?

11 A. Evidently they did conduct one study.

12 Q. Dr. Castleman, are you familiar with the term
13 "platy talc"?

14 A. Yes, I have seen it in the literature.

15 MR. HINKLE: Excuse me. Dr. Castleman, I am
16 sorry to interrupt you. Would you be kind enough to
17 speak up so those of us at the end of the table could
18 hear you?

19 THE WITNESS: I would suggest that two or three
20 seats that are closest be occupied by those of you who
21 are having any trouble hearing me. I am not feeling
22 terribly well this morning, and it's a little hard to
23 speak up.

24 MR. HAYS: We have four chairs down here, and
25 there is another one right there. You all can move

1 Q. And you believe it is important for any scientist
2 who holds himself out as an expert witness in the area of
3 asbestos and health hazards of asbestos to keep current with
4 the scientific knowledge dealing with asbestos, do you not?

5 A. Well, I do that mainly because I am active in the
6 arena of regulation of asbestos today, and so my activities,
7 which go far beyond civil litigation on asbestos, obligate me
8 to try and keep up with the latest things that are being
9 discussed, different types of controversies, the latest flock
10 of red herrings being published in the scientific literature
11 and so forth that one has come to see over the years in dealing
12 with asbestos and health.

13 Q. In any type of science, no matter what type of
14 science you are dealing with, it's important if you are an
15 expert in the area to keep up with the current development of
16 the knowledge in that particular science, is it not?

17 A. Well, it is if you are going to be currently
18 active in current disputes and current controversies over the
19 current state of knowledge. The reason I haven't tried to
20 thoroughly familiarize myself with current articles on talc is
21 that my role in the area of talc is much more limited than it
22 is in the area of asbestos and health. And I have simply
23 agreed to look into the history of knowledge on talc, and so
24 it's for that limited purpose that I am still working on talc
25 today, although I had an interest in it since around 1972 or

1 so.

2 Q. Well, Dr. Castleman, I think you anticipated my
3 next question, because I really did not ask you about talc, I
4 had really asked you about asbestos in other areas of
5 scientific development. But as far as talc, you are not
6 familiar, as I understand it, with the current state of
7 scientific literature; is that correct?

8 A. Well, I have looked at some such literature, and I
9 have an idea what the current state of knowledge is on talc,
10 but I haven't done the kind of thorough and extensive reading
11 that I would do if I were engaged in controversies over, you
12 know, the current need to regulate talc as, you know, some kind
13 of a consumer product or other. Then I would need to be able
14 to discuss the fine points of medical and scientific literature
15 relating to the state of current knowledge on the hazards of
16 products.

17 Q. Do you draw a distinction between current
18 regulation and current litigation?

19 A. Yes, in the sense that I am involved in litigation
20 as a state of the art witness as something of a historical
21 witness rather than someone who's a medical witness testifying
22 about the current state of medical knowledge on the subject.

23 Q. You had made the statement on our first day of
24 testimony that you are doing the same thing with talc as you
25 did with asbestos. Essentially that statement is not entirely

1 correct, is it? You have not done the same thing with talc as
2 you have with asbestos in that you have not kept up to date
3 with current literature concerning talc?

4 A. Well, I don't recall the context of the statement,
5 but for the purpose of what we have been discussing the last
6 two days and what we're going to be doing today, my involvement
7 in the cases is parallel in the sense that I am presenting
8 information on what was historically available about the
9 hazards of talc in the scientific literature. And this is
10 analogous to the kind of presentation that I do on the state of
11 knowledge about asbestos I developed over the '30s, '40s, '50s
12 and '60s. The only difference, I suppose, is that I am also
13 engaged or have been engaged, continue to be engaged in
14 government regulation of asbestos in a current context separate
15 from civil litigation entirely, and this obligates me to have
16 rather fluent current knowledge about the literature on
17 asbestos.

18 Q. You had made the statement earlier that talc had
19 been indicted, and I want to ask you about that term, because
20 quite often, you know, as a lawyer I may look at terms
21 differently from the way a scientist does. And generally the
22 word indicted to a lawyer means that someone had been charged
23 with crime. Are you aware that anyone, or that talc, or that
24 any talc manufacturer had been charged with any type of crime?

25 A. Well, I wasn't using the word as a lawyer, I was

1 using it as a layman. But talc has been charged with causing
2 illness and disease and lung damage, and in that sense it was
3 indicted in the literature by people who were writing articles
4 saying workers exposed to talc are suffering damage to their
5 health. That is the sense in which I used the word.

6 Q. And the literature today is still changing, and
7 however you are not aware of any of the most recent changes in
8 the literature concerning talc and its possible health hazards?

9 A. I wouldn't say that. But I am not as
10 knowledgeable as I might be if I spent a lot more time reading
11 current literature about the health effects of talc, and I am
12 not totally unaware of what is in the current literature. I
13 just don't -- haven't canvassed the current literature,
14 examined it the way I have with asbestos or the way I have even
15 with historic literature on talc.

16 MR. GOSS: I don't have any further questions.

17 MR. CROSBY: Mr. Hood has a scheduling problem,
18 and I have agreed to let him go head of me, if you
19 don't have any problems with that, he will go before I
20 go.

21 MR. HAYS: Anymore talc people that want to ask
22 questions? I think we ought to finish that up first.

23 MR. CROSBY: My understanding was that was the last
24 questioning for talc. I don't know whether I was wrong
25 or not.

1 MR. HAYS: Any further questions on talc from
2 anyone?

3 MR. HINKLE: Not that I know of, Mr. Hays. I
4 don't think all the talc people are present.

5 MR. GOSS: Not to say that questions may not
6 arise after further questioning today.

7 MR. HAYS: All right. Since no one has anymore
8 questions about talc, let's go ahead with asbestos.

9 CROSS EXAMINATION

10 BY MR. HOOD:

11 Q. Dr. Castleman, you have been listed as a witness
12 as an environmental engineer who has been consulted, been a
13 consultant to the United States Counsel on Environmental
14 Quality, OSHA, and the Environmental Protection Agency. Are
15 you aware of that?

16 A. Well, that is all true.

17 Q. And it's anticipated that your testimony will
18 include, but will not be limited to the development of
19 scientific knowledge concerning the hazard of asbestos, talc,
20 soapstone and clay. Have you in the last two days told us all
21 opinions you have on those subjects and anticipate telling a
22 jury in these trials in Oklahoma?

23 A. I think so. Again, it depends on what sorts of
24 questions I will actually be asked in trial.

25 Q. Are there any other bases of your opinions other

1 than what you have given us here in your testimony in the last
2 two days?

3 MR. HAYS: I will be questioning Dr. Castleman
4 about clay later in the day. So other than that.

5 MR. HINKLE: In that regard, the attorney who
6 represented the clay manufacturer, based upon Dr.
7 Castleman's assertion that he was not an expert has
8 left us.

9 MR. HAYS: Well, he was here, and he heard me
10 state on the record that I would be questioning about
11 clay. If he wanted to leave, that's his option.

12 MR. HINKLE: Well, I just want it clear that he
13 was relying on the Doctor's statement that he was no
14 expert, and not on your statement.

15 MR. HAYS: I saw you all conversing about it
16 earlier during the deposition, I figured something like
17 that would happen, it doesn't surprise me a bit. But I
18 told him I was going to question on clay, and I gave him
19 the articles yesterday, the exhibits and had him look at
20 them, so he knows I am going to ask about it.

21 Q. (By Mr. Hood) So then, Doctor, the answer to my
22 question is what?

23 A. I don't remember your question.

24 Q. Have you given us the bases of your opinions on
25 those subjects?

1 A. I think so. Again, a matter of clay being in the
2 literature, including some of the literature that is already
3 marked as exhibits, is something that we can certainly talk
4 about a little bit more.

5 Q. But other than the clay subject, we have heard
6 then, the bases of your opinions and your opinions as they
7 apply to these cases?

8 A. Well, I don't know that we have said much about
9 asbestos, but you know very well what my opinions are in
10 connection with historical development of knowledge about
11 asbestos.

12 Q. All right, sir. Mr. Crosby had asked you about
13 your contact with Mr. Hays. Is he the only attorney in the
14 tire worker industry with whom you have had contact who has
15 brought tire worker cases?

16 A. I have been in contact with the Casey, Gerry firm,
17 but I don't think about tire worker cases.

18 Q. Any other lawyers?

19 A. I have met Gordon Stemple, but I don't know that I
20 have ever had any formal involvement with him in this
21 litigation.

22 Q. So you have not given any other attorney
23 permission to list you as a witness in any tire litigation?

24 A. Stemple, you mean?

25 Q. Anyone, any lawyer, other than Mr. Hays?

1 A. That is the only one I can think of, although
2 there may be --

3 MR. HAYS: Are you talking about my firm in its
4 entirety? I think he's spoken with John Norman.

5 MR. HOOD: Sure. Thank you.

6 THE WITNESS: There may be firms with which
7 I've dealt in asbestos generally who also have some
8 tire worker cases, and they have listed me in them and
9 they haven't bothered to tell me, that wouldn't surprise
10 me.

11 Q. (By Mr. Hood) Now, we were trying to find out
12 when you were first contacted. Can you look back at a bill to
13 determine, based on hours spent, when you were first contacted
14 by Mr. Hays?

15 A. I don't know.

16 Q. There is no way you can tell us the answer to that
17 question?

18 A. No, because, you know, billing doesn't start until
19 the work starts.

20 Q. And the work started a day before the deposition
21 which you have given in this case?

22 A. No, the gathering of the materials started some
23 months before.

24 Q. Your actual review of those materials started the
25 day before?

1 A. Didn't start then, but finished, largely
2 concluded.

3 Q. Do you keep a record of time spent on the
4 telephone, time spent talking to consultants and so forth, so
5 you can charge Mr. Hays for that?

6 A. No. I just estimate that kind of time if I think
7 it comes to anything significant.

8 Q. And you charge him for Mr. Holm's time based on
9 what Mr. Holm's charges you?

10 MR. HAYS: Mister Who?

11 MR. HOOD: Ed Holm.

12 MR. HAYS: That is his last name.

13 Q. (By Mr. Hood) Whatever his name is? The
14 researcher in Washington.

15 A. Right. I either pay Mr. Edholm myself and bill
16 it, or I get Mr. Edholm to deal directly with Mr. Hays.

17 Q. You have not asked him nor have you yourself
18 conducted any research on the health hazards to tire workers
19 specifically from asbestos?

20 A. You mean Edholm. Edholm has simply been going to
21 the library.

22 Q. Getting what you've asked him to get?

23 A. Yes.

24 Q. Has he or have you conducted any specific research
25 concerning health hazards to tire workers from asbestos

1 exposure?

2 A. No.

3 Q. Have you in fact found anything in the world
4 literature which suggests a health hazard to tire workers from
5 asbestos exposure?

6 A. The literature on asbestos indicates that people
7 can get exposed to asbestos and get asbestos diseases whether
8 they work in tire plants or elsewhere. But I don't recall
9 specific literature focused on asbestos hazards in tire plants.
10 It's well known in the industry generally when there is a lot
11 of insulation material available and used, there are going to
12 be exposures to asbestos, or least there have been in past
13 years.

14 Q. Have you reviewed the Harvard studies of tire
15 workers?

16 A. I have seen some such studies. I remember --
17 these are studies that were done in the mid '70s, mid '70s and
18 maybe even into the late '70s, Peters and others.

19 Q. I am asking you if you have heard of them, if you
20 have, if you have read them?

21 A. I recall that the rubber workers were interested
22 in having some studies done, and they engaged some people at
23 Harvard sometime in the mid '70s, I guess it was.

24 Q. Who were those people engaged? What were the
25 names of the doctors or researchers that conducted those

1 studies?

2 A. I think that Peters was one, Wakeman may have been
3 involved. This is just from memory.

4 Q. Have you ever read any of their works?

5 A. I have looked at these things, and I've seen some
6 publications along these lines, but I can't really remember
7 much about them.

8 Q. And you have not produced any here today on your
9 deposition?

10 A. No. I think that their focus was not so much on
11 asbestos for one thing, but on, as I recall, more on the
12 different types of chemical exposures that took place in these
13 plants.

14 Q. Have you reviewed the works of tire workers and
15 health hazards done at Chapel Hill?

16 A. I can't offhand think of such studies. Can you
17 give me the name of an author?

18 Q. You have not produced any. If you have not, does
19 that mean you have not reviewed them?

20 A. No. I mean, I have been reading medical and
21 scientific literature on this kind of thing for a long time.

22 Q. Are you aware of specific studies done by the
23 Chapel Hill group of scientists and doctors with regard to the
24 health hazards of tire workers, yes or no?

25 A. I might have heard about it if you give me the

1 names of the individuals who did the research. I don't always
2 notice the university affiliation the research was published
3 by.

4 Q. And if you have read it, and since you have not
5 produced it, you didn't find such works, if they exist, of
6 significance concerning your opinions in these cases?

7 A. I haven't seen that stuff in years.

8 Q. So who did them and what they concluded, you have
9 no knowledge?

10 A. Right. As I sit here today, I am not aware of the
11 details of such reports or names of the authors, I don't think.
12 Unless of course if you tell me the names of the authors and
13 the studies that you are talking about, that might help me
14 remember.

15 Q. And who the lead authors of works out of Chapel
16 Hill were, you do not know without me telling you the names of
17 the articles or the authors; is that correct?

18 A. Well, that is mainly because I don't always keep
19 track of the university affiliation of researchers, although
20 the researcher's name may be very familiar to me.

21 A. You have no future plans for conducting research
22 concerning the health hazards of either asbestos or talc to
23 rubber workers that will apply to your testimony in the
24 Oklahoma cases?

25 A. I have no further plans of that kind.

1 Q. You do not plan to conduct a site inspection, nor
2 to review any records from the Oklahoma plant where these
3 plaintiffs worked?

4 A. I have no such plans at this time.

5 Q. Nor to inspect any other tire making facility?

6 A. Again, I might avail myself of the opportunity, if
7 I could, but I haven't made any plans to do so.

8 Q. You do not have any plans to inspect any talc
9 mines or talc manufacturing facilities?

10 A. No.

11 Q. You are not going to be a witness on causation in
12 these cases, I believe you told Mr. Crosby that?

13 A. That's correct.

14 Q. And you have produced a list of articles, at least
15 the list that you gave to attorney Sutter, we have got that now
16 as one of the exhibits.

17 A. Well, John Sutter's list of articles would
18 certainly be a --

19 Q. Has that been marked as an exhibit, is my
20 question. Do we have that list?

21 MR. CROSBY: I believe it's No. 80.

22 MR. HOOD: Okay. Great.

23 Q. (By Mr. Hood) Were did those cases or where did
24 those articles come from that are on that list?

25 A. I think that the list was originally prepared by

me, and then added to by me, and perhaps by Mr. Sutter as well,
over a period of time.

Q. Your work as a consultant to the Environmental --
United States Counsel on Environmental Quality has been as an
environmentalist with an environmental group that you have
volunteered to do work for?

A. I was hired by the White House counsel on
environmental quality to examine documents involved in the
reserve mining company water pollution case and Lake Superior
in 1973.

Q. Okay. And other on than one occasion, have you
ever done any other work for them?

A. Not paid consulting, no.

Q. All right. As to OSHA, what has been your
involvement with that?

A. As a consultant the Occupational Safety and Health
Administration employed me to look into the possibility that
OSHA regulations on hazardous substances may have caused
displacement of hazardous industries to developing countries.

Q. When was that done?

A. Ten years ago.

Q. When was that work concluded?

A. At that time.

Q. And as to the EPA what has your involvement been?

A. Well, OSHA and with the EPA I have been involved

1 extensively in different types of rule making as a participant
2 in the rule making, as a person who submitted information in
3 connection with the development of government regulations.
4 This is above and beyond my role as consultant to any of these
5 agencies.

6 Q. This is something you have done on your own as a
7 volunteer?

8 A. Or as an employee or consultant to environmental
9 groups like the Natural Resources Defense Counsel or the
10 Environmental Defense Firm. I have also been employed as a
11 consultant by the EPA for a period of about two years.

12 Q. When was that?

13 A. Between 1979 and 1981.

14 Q. In what capacity?

15 A. The EPA was considering the possibility of banning
16 asbestos, and I was providing information to the EPA in support
17 of efforts to ban asbestos.

18 Q. What were the years again?

19 A. 1979 to '81.

20 Q. All right, sir. Now, this list, Exhibit 80, which
21 is your list of articles, when did you first prepare this list?

22 A. Well, the original list of articles goes back to
23 something that was prepared around 1980 or 1981.

24 Q. When did you add articles that pertain to these
25 cases?

1 A. Articles haven't been added for particular use in
2 these cases, in the rubber worker cases. They simply are an
3 accumulation of articles, that has, you know, that I have
4 become familiar with over the years.

5 Q. Okay. What you basically have done is collect
6 materials relating to asbestos hazards dating back to the 19th
7 century?

8 A. Right.

9 Q. And you have produced the materials and articles
10 that you have developed with regard to scientific knowledge
11 concerning the hazards of asbestos, talc, soapstone and clay?

12 A. Yes, I have. I mean not every single article that
13 I have ever seen, but articles which constitute the basis of
14 any opinions I would offer.

15 Q. The plaintiff's have listed Morris Kleinfeld as a
16 witness in these cases, did you know that?

17 A. Yes.

18 Q. Have you had any communication with him?

19 A. I don't think so. I may have written him a letter
20 once years ago. But I haven't in connection with this
21 litigation, I haven't had any contact with him.

22 Q. Are you aware of what his opinions are as they may
23 apply to these cases based on what you have either been told by
24 plaintiff's counsel or learned yourself?

25 A. No. All I have to go by or would have to go by

are the articles that are published that bear his name.

Q. You have no knowledge yourself of the uses of asbestos in the B.F. Goodrich plant in Miami, Oklahoma?

A. I don't have any specialized knowledge about how asbestos was used. I assume it was widely used as insulating materials in the plant.

MR. HINKLE: Let me interrupt for a moment.

This might be a time where we clear something up.

Jim, I have been told that Dr. Kleinfeld is not going to be presented as a witness for the plaintiffs. Is that true?

MR. HAYS: There is a possibility he may be presented through deposition, but not live. We just sent out a new witness list, so I will discuss this with you off the record later.

MR. HINKLE: Let's get that cleared up. Because I have been told unequivocally that he will not.

MR. HAYS: I will be glad to discuss it with you later.

Q. (By Mr. Hood) Do you know how a radiologist can differentiate between the effects of inhalation of talc versus inhalation of asbestos when an X-ray is viewed?

A. I know that the literature indicates that there are similarities in the X-rays, but I think that this is a question best posed to radiologists, not to me.

1 Q. You have never worked for nor have been a consult
2 to any rubber or tire manufacturing company?

3 A. No.

4 Q. Can you give me a list of known carcinogens to
5 which workers in the tire manufacturing industry are exposed
6 to?

7 A. I don't think I can give you a complete list. I
8 have heard of some chemicals that are used there.

9 Q. You are not an epidemiologist?

10 A. I am not an epidemiologist --

11 Q. You are not a respiratory --

12 A. -- per se, although epidemiology is one of the
13 tools of my trade.

14 Q. You have had no formal training in the field of
15 epidemiology?

16 A. Yes, I have. I have taken courses in epidemiology
17 at Johns-Hopkins School of Hygiene and Public Health.

18 Q. When did you take those courses?

19 A. In the early 1970s and early 1980s.

20 Q. How many such courses did you take?

21 A. Maybe seven or eight such courses. Maybe ten.

22 Q. You do not hold a degree in epidemiology?

23 A. No. My degree is in health policy.

24 Q. You were in what school when you took those
25 courses?

1 A. Johns-Hopkins School of Hygiene and Public Health.

2 Q. You have never been trained as a respiratory
3 epidemiologist; is that correct?

4 A. Never heard the term respiratory epidemiologist
5 before.

6 Q. So whether there are people who are so
7 specialized, you have no knowledge?

8 A. I suppose there are people who do epidemiological
9 studies on respiratory problems, but I have never heard them
10 called respiratory epidemiologists before.

11 Q. Now, you have been excluded as a witness in how
12 many jurisdictions?

13 A. I don't know, maybe three, maybe four, over a
14 period of ten years.

15 Q. Where are those jurisdictions?

16 MR. HAYS: You mean jurisdictions in their
17 entirety or particular judges? I think there is a
18 legal distinction here. The witness may not be
19 understanding. One judge limited him in his testimony,
20 not the entire jurisdiction.

21 Q. (By Mr. Hood) Let's say judges then.

22 A. That is a very good point, because I have been
23 excluded by a judge in Chicago, but I have also testified in
24 Chicago in front of other judges.

25 Q. Which judge in Chicago?

1 A. I think his name was Grady.

2 Q. Any other -- name the other judges and their
3 locations that have excluded you.

4 A. I don't really keep track of the names of the
5 judges, but I can give you whatever I remember.

6 Q. Okay.

7 A. Following Judge Grady's decision, a similar
8 decision was made by a judge in the Virgin Islands in St.
9 Croix. I think there was a state court judge that also
10 followed Judge Grady in Milwaukee where I had also testified in
11 front of other judges.

12 Q. Okay.

13 A. I think aside from that, there were just a couple
14 of old decisions, one in '79 which very much limited me, at
15 least, this is in Mobile, and, I mean I recall testifying
16 before the judge, but I also recall the judge making some
17 adverse ruling. I have forgotten exactly what went on there.

18 And in 1982 there was a ruling published in the Federal
19 Reporter by Judge Beckham which very much limited the scope of
20 testimony I would be able to offer, although he didn't
21 completely exclude. And of course, since that time I have
22 testified numerous times in the State of California, both state
23 and federal courts. Those last two matters pre-date my
24 obtaining my doctorate from Johns-Hopkins School of Hygiene and
25 Public Health.

1 Q. You have had no training or experience in
2 industrial or occupational medicine?

3 A. Again, it's all a question of what you mean by
4 that.

5 Q. Other than what you have read in literature, you
6 have had no formal training certainly?

7 A. I have contributed to the literature, educated
8 people in the field of industrial medicine.

9 Q. That is on your book Asbestos that you are talking
10 about?

11 A. No. I am talking about an article called
12 "Corporate Influence on Threshold Limit Values" that was
13 published in the American Journal of Industrial Medicine that
14 was quite well received by the editor Dr. Selikoff and others
15 who commented on this article.

16 MR. CROSBY: Object to the response as
17 volunteering information not solicited by the question,
18 and move to strike it.

19 Q. (By Mr. Hood) You have had no experience working
20 in a tire manufacturing facility?

21 A. No.

22 Q. What is done by various employees in a tire
23 manufacturing facility in their daily occupation, you have no
24 personal knowledge of?

25 A. I have no personal knowledge of.

1 Q. What a chemist would do in a tire plant, you don't
2 know?

3 A. No, I don't know what a chemist would do in a tire
4 plant, although I can -- there are issues of quality control
5 and so forth that would be attended to by a chemist.

6 Q. How a tire is built, the building process, you
7 have no knowledge of that?

8 A. I have some knowledge, but it's limited. I
9 haven't made a study of the technology of tire manufacturing.

10 Q. You don't hold yourself out as an expert in that
11 area?

12 A. No.

13 Q. You have no training or experience in the field of
14 psychology or psychiatry?

15 A. No, aside from one course in college.

16 Q. As to the context of the articles that you have
17 read and their place in history, do you have opinions and
18 knowledge?

19 A. Yes.

20 Q. And that is based upon what you have read in the
21 literature; is that correct?

22 A. Based upon what is in the literature, it's based
23 upon -- when we talk about asbestos, it's based upon a larger
24 review of corporate knowledge and actions, as well as what was
25 in the scientific literature. And it's based upon interviews

1 with people who were around at the time, as well as -- well,
2 when I say corporate knowledge, I mean all the various types of
3 corporate knowledge evidence that has been developed in the
4 asbestos litigation.

5 Q. So it's based upon documents that you have
6 reviewed?

7 A. Primarily documents, and in some cases statements
8 of individuals that I have contacted.

9 Q. Who are you talking about when you say
10 individuals?

11 A. Dr. Hueper, Dr. Hardy, Dr. Mancuso, Dr. Angrist,
12 Dr. Harold Stewart, and some others like that.

13 Q. Several of whom are dead?

14 A. Yes.

15 Q. Have been for some while?

16 A. Yes. I have been investigating this thing for
17 some while.

18 Q. But as to the times these articles were written,
19 in the '40s, even the '30s, '40s, '50s and '60s, you weren't
20 even an adult at that time, were you?

21 A. Not until the '60s sometime.

22 Q. What is your age?

23 A. Forty-two.

24 Q. So then whether or not an article was well known
25 or obscure, or how an article was received by the medical

1 community when it was published, you have no personal
2 knowledge?

3 A. I have no personal knowledge, although, as I say,
4 by reading the literature one does get an idea that some
5 articles were widely cited, achieved some prominence, other
6 articles appear not to have been noticed as much.

7 Q. Your research methods, as you have identified
8 them, has been to go to the index medicus and attempt to obtain
9 a thorough list of articles on a given subject, and then to
10 review those articles; is that correct?

11 A. That is what I did with asbestos. I haven't
12 actually done that with talc.

13 Q. And you have never done anything as to a specific
14 group of workers known as tire workers or rubber workers?

15 A. That's right, I haven't focused any research
16 efforts into looking at medical literature developed around
17 tire workers as an occupational group.

18 Q. And you told us yesterday that you are not an
19 expert in the field of warning and warning labels or the
20 adequacy of the same?

21 A. I feel that I am not a specialist in the field of
22 designing warning labels, if that is what you mean by an
23 expert.

24 Q. And the same thing with regard to pamphlets
25 concerning the use of materials, this is not an area in which

1 you are an expert?

2 A. I have written materials for the purpose of
3 educating people about health hazards. I have written the
4 kinds of pamphlets that you're talking about, and I think my
5 experience is relevant in that regard.

6 Q. What kind of pamphlets have you written?

7 A. Circulars that we handed out to brake mechanics
8 trying to warn them about the hazards of brake repair back in
9 1972, 1973.

10 Q. So that if we were defending a suit brought by a
11 brake mechanic and he had read your pamphlet and thereafter had
12 continued to work with materials containing asbestos, he would
13 have done so knowingly assuming the risk of danger and disease?

14 A. That's a legal question, and I don't think I can
15 answer legal questions.

16 Q. But I can ask you that question in that kind of
17 case, and you would agree that your phamplet would have
18 adequately and fully warned him of the health hazards to which
19 he subjected himself voluntarily; correct?

20 A. It would have informed him to the the best of my
21 ability at that time about those hazards.

22 Q. What is the history of the threshold limit value
23 for talc?

24 A. Threshold limit value apparently was set at 20
25 million particles per cubic foot at some time, and I can't tell

1 you when, but I noticed it referred to I think in some of these
2 articles in the 1950s.

3 Q. Did it remain unchanged? Or has it been changed
4 at all?

5 A. I don't know whether it's been changed. I think
6 it's been changed for talcs that contain asbestos fibers,
7 tremolite fibers.

8 Q. And what is the current TLV then?

9 A. Well, the TLV for that kind of talc would be the
10 same as for asbestos, so many fibers per cubic centimeter of
11 air.

12 Q. Which is what?

13 A. Well, I think that right now there is some
14 litigation over that that has been brought by Vanderbilt Talc,
15 but the standard I believe is 0.2 fibers per cubic centimeters
16 of air equivalent to 200,000 fibers per cubic meters of air. A
17 fiber is longer than five microns in length.

18 Q. How long has that been the standard?

19 A. Since 1986.

20 Q. Prior to that what was the standard?

21 A. It was two fibers per cubic centimeters of air.

22 Q. When was that adopted?

23 A. That took effect in 1976 as part of a government
24 regulation published in 1972.

25 Q. Prior to that what was the standard?

1 A. For a short time it was 'five fibers per cubic
2 centimeters of air.

3 Q. When was that?

4 A. From December 7th, 1971 until June 7th or so,
5 1972.

6 Q. And prior to that what was the standard?

7 A. Twelve fibers per cubic centimeter.

8 Q. From when to when?

9 A. From around April of 1971 when OSHA officially
10 went into business, until December when they issued the
11 emergency standard for asbestos.

12 Q. Prior to December '71 what was the standard?

13 A. Prior to then it was open season on workers in the
14 United States as far as the federal government was concerned,
15 unless they worked for government contractors doing \$10,000 a
16 year in business or more, in which case they would have been at
17 least theoretically under the subject to the Walsh-Healy Act
18 Provision where the standard was 12 particles per cubic --

19 MR. HOOD: Move to strike the answer.

20 Q. (By Mr. Hood) Just tell me what the standard was,
21 please, prior to December '71.

22 A. The federal standard applied only to government
23 contractors doing \$10,000 of business a year or more, and that
24 standard was 12 fibers per cubic centimeters of air from around
25 1969 until 1970, '71.

1 Q. What was before that?

2 A. Before that there were no -- there was no federal
3 regulation of general industries in the United States.

4 Q. What about the American Conference of Governmental
5 Hygienists, had they adopted a threshold limit value for
6 asbestos prior to that?

7 A. Yes.

8 Q. What was that?

9 A. That was five million particles per cubic foot of
10 air.

11 Q. And that was the standard from when to when?

12 A. 1946 until about 1970.

13 Q. And that standard remained uncriticized in the
14 medical literature during that period?

15 A. It was not a standard, and it was criticized.

16 Q. When was it first criticized?

17 A. I've listed a number of examples of that in
18 Chapter 4 of my book. I can recall a few. It was criticized
19 in 1952 by May Mayers. It was criticized by Warren Cook in
20 1956. It was criticized by a number of speakers at the New
21 York Academy of Science Conference that was held in 1964,
22 published in 1965, among them Adding Ley from Great Britain who
23 worked for a British asbestos company and said that U.S. TLV
24 had absolutely no scientific basis whatsoever.

25 Q. You have had no training yourself in the field of

1 industrial hygiene?

2 A. Yes, I have.

3 Q. When?

4 A. Among the courses that I took at Johns-Hopkins
5 School of Hygiene and Public Health was a course in industrial
6 hygiene ventilation where I designed ventilation systems using
7 relatively simple engineering principles. I mean, they are
8 simple to cover background in engineering to apply to
9 techniques that are used in designing dust control systems. So
10 I have some training in industrial hygiene.

11 Q. You are not a certified industrial hygienist?

12 A. No.

13 Q. You have taken one course in ventilation
14 apparently?

15 A. I've taken one course that was specifically in the
16 design of industrial ventilation, and a number of other courses
17 in which various aspects of hygiene were discussed and
18 presented in the Johns-Hopkins School of Hygiene and Public
19 Health.

20 Q. Have you seen anything in the literature
21 criticizing TLV for talc?

22 A. I haven't really looked that carefully at
23 literature on talc, but off the top of my head, I can't say
24 that I have seen anything criticized in TLV for talc, except
25 perhaps people writing about asbestiform talcs saying that they

1 needed to be regulated like asbestos.

2 Q. You have done no work for the tire, the tire
3 industries union, which is the International Rubber Workers
4 Union?

5 A. No. I mean I have had correspondence or at least
6 met with Lou Beliczki over the years.

7 Q. When did you meet with him?

8 A. I don't know. I guess I have known Lou Beliczky
9 for about 15 years.

10 Q. And how many times have you met with him?

11 A. I usually run into him at some conference or
12 another.

13 Q. You haven't discussed with him health hazards to
14 workers in the tire industry from asbestos?

15 A. Yes, I think so.

16 Q. Did he ever recognize such a hazard?

17 A. Yes.

18 Q. When did he first do that?

19 A. I don't know. I guess I met with him, maybe it
20 was a meeting of the American Public Health Association in Las
21 Vegas a few years ago, and we talked about the fact that there
22 were a number of lawsuits being filed over asbestos damage to
23 workers in the rubber industry.

24 Q. Did he tell you he thought those cases were
25 frivolous and shouldn't have been brought?

1 A. I forget exactly what he told me. I remember him
2 feeling that there was -- he was a little apprehensive that
3 some cases might be filed.

4 Q. Did he tell you he thought it was a disservice to
5 the union membership for lawyers to file cases about disease
6 that didn't exist in workers that he was monitor of health for?

7 A. I don't recall him saying anything quite like
8 that.

9 Q. If in fact the workers for whom suits were being
10 brought were not sick, would that be a correct statement in
11 your view?

12 A. I just don't recall what Beliczky said about that.

13 Q. Not Beliczky, I am asking you, Barry Castleman?

14 A. If people are filing lawsuits over claims for
15 disease when there really isn't any medical basis for saying
16 that these people have disease, and if large numbers of such
17 claims are being filed, it simply means the people who have
18 real problems are going to be waiting in line that much longer
19 to get their day in court, and that is a disservice.

20 Q. Is it also a disservice to that individual to let
21 him think he has a claim, when in fact he medically does not in
22 fact; is that correct?

23 A. Yes, it would be.

24 Q. Have you ever worked with an electron microscope?

25 A. No, I've never operated one.

1 Q. Have you ever collected dust to determine the
2 levels of asbestos dust or talc dust in the work environment?

3 A. I have assisted in setting up equipment to do
4 sampling on one occasion I can recall while I was a local
5 health official.

6 Q. Where was that?

7 A. The Civil Defense Building in Towson, Maryland.

8 Q. What were you testing for or assisting setting up
9 to be tested?

10 A. They had sprayed asbestos ceilings and were
11 concerned about what might be in the air.

12 Q. Did they determine that the ambient air was such
13 that the asbestos was not dangerous in that location?

14 A. They found small quantities of asbestos in the
15 air, but nothing approaching the occupational standards.

16 Q. What you would find in the ambient air in the
17 urban society?

18 A. Probably a little more than that.

19 Q. But not enough to cause concern so that it should
20 be removed?

21 A. Well, we were concerned that we might be creating
22 more of a problem by disturbing that material than by leaving
23 it in place.

24 Q. That is the current view as recently as yesterday
25 of the EPA, we shouldn't remove asbestos if it's not creating a

1 health hazard; correct?

2 A. I am not sure that is what the EPA said yesterday
3 about removing asbestos.

4 Q. That has been their view in the past?

5 A. I think the government's view has been that
6 priorities need to be set, and the places where the material is
7 in bad condition or deteriorating or is creating a health
8 hazard, that that needs to be addressed first, and that other
9 places where the material seems to be reasonably in tact, the
10 material can be left there for at least some time because we
11 have limited resources to address that.

12 Q. You are then of the view that if the asbestos is
13 not friable and not creating sufficient adverse levels in the
14 air within a building that it should be left alone?

15 A. Well, at least for the time being. It doesn't
16 mean that it should be left alone in perpetuity.

17 Q. That would apply in a tire worker facility where
18 tires are made?

19 A. I am thinking more about building plenums and
20 things of that nature, that is very different than an
21 industrial facility.

22 Q. How would you know if it's different if you have
23 never been in such a facility?

24 A. Because an industrial facility contained -- the
25 asbestos material is in a more -- is much, it seems to me, is

1 likely to be exposed to impact, is going to require regular
2 maintenance, removal, repair. And thermal insulation on pipes
3 is subjected to heat stress which is very different than the
4 kind of conditions that exist inside of an air plenum where
5 recirculating air is being blown around for an office building.
6 It's a totally different situation.

7 Q. Go back to the TLV for talc. Do you know of any
8 criticism in the literature which causes you to think that
9 industry was writing the talc standards like you think about
10 asbestos?

11 MR. CROSBY: Object to the form of that question.

12 THE WITNESS: I don't like it either.

13 MR. CROSBY: Move to strike the voluntary response
14 of the witness.

15 MR. HAYS: Are you sure you got that, since you
16 are reading the newspaper?

17 MR. CROSBY: I am reading what he called a
18 stuffed-shirt paper's account of the EPA ban, as he
19 called it, on asbestos, Counsel. As and I take it, that
20 is part of my job. I am on Page B-4 of the Wall Street
21 Journal, dated Friday, July 7th, 1989 in approximately
22 column three.

23 MR. HAYS: Strike all the self-serving comments
24 what he's reading as his duty as counsel.

25 MR. CROSBY: Counsel, I might introduce it. If

1 you want to help me practice law, I would be glad for
2 you to do that sometime on somebody's time besides
3 mine. Let's move on.

4 THE WITNESS: Let's take a break.

5 MR. HAYS: Yes, let's take a five minute break.

6 MR. HOOD: The witness would like to take a five
7 minute break. We will.

8 (Whereupon, a short recess was taken.)

9 Q. (By Mr. Hood) Do you know of any effort by the
10 talc industry to have any effect upon the standard TLV for
11 talc?

12 A. No.

13 MR. HAYS: Let me ask you this, sir. We asked
14 if there were any further talc questions, and there
15 were no further talc questions, and we opened this
16 portion of the deposition to go into asbestos. It
17 seems to me you're reopening the talc area, which of
18 course will reopen the opportunity for talc people to
19 ask questions at a later time, it will be utilized as
20 an attempt to continue the deposition. I ask you to
21 continue your questions as to asbestos, as the talc
22 questions have been exhausted, and in fact. I think you
23 asked some preliminary questions about talc to determine
24 that when you first started your questioning. So I just
25 ask that you stick to asbestos as you planned to.

1 MR. HOOD: I have made no commitment to do
2 anything other than examine the witness.

3 MR. HAYS: Well, then if you are not going to talk
4 about asbestos, I change our agreement, and asked
5 Mr. Cosby to begin his questions.

6 MR. CROSBY: My name is Crosby, C-r-o-s-b-y.

7 MR. HAYS: Crosby, I'm sorry.

8 MR. CROSBY: You have already said Hood can go
9 now.

10 MR. HAYS: No. I thought that was with the
11 agreement that he was going to talk about asbestos.

12 MR. CROSBY: I certainly can't control what
13 Mr. Hood asks or does.

14 MR. HAYS: So the agreement is off, because
15 it's been breached by you all.

16 MR. CROSBY: I haven't breached anything,
17 Mr. Hays. I have been sitting over here because you
18 said he could go next.

19 MR. HAYS: You requested that he go next.

20 MR. CROSBY: I asked if he could.

21 MR. HAYS: Yes, based on the fact that it had
22 to do with asbestos.

23 MR. CROSBY: I didn't understand that to be the
24 basis of it.

25 MR. HAYS: I asked the question if there were

1 any further talc questions.

2 MR. HOOD: Let me proceed, please.

3 Q. (By Mr. Hood) As to articles that you produced,
4 Mr. Castleman --

5 MR. HAYS: I asked everyone that question.

6 MR. CROSBY: Well, I'm going to have some
7 questions relating to talc. We're all in this lawsuit
8 together.

9 MR. HAYS: You don't have anything to do with
10 talc. Are you representing a talc
11 defendant?

12 MR. CROSBY: That is not any of your concern. I
13 am here to ask questions on behalf of my client.

14 MR. HAYS: Well, then I am going to ask that you
15 continue on with your line of questioning or you
16 waive it.

17 Mr. Hood: Can I proceed with questions --

18 MR. HAYS: I object to any questions on your
19 behalf at a later time.

20 MR. CROSBY: Well, just a minute.

21 MR. HAYS: If you are not going to go ahead and
22 ask your question the way you are supposed to --

23 MR. CROSBY: If that is your contention, then
24 if I now stop and interrupt Mr. Hood, are you going to
25 preclude him from finishing his line of questioning?

1 MR. HAYS: No. I want talc finished up.

2 MR. CROSBY: I can't finish up talc, I can't
3 finish up asbestos if I start right now. This witness
4 has provided us documents that I have never seen in his
5 file in all my years. I have got lots of questions I
6 have to ask him, some of them are in the files of
7 asbestos that relate to talc.

8 MR. HAYS: I am sure you will try to continue this
9 deposition for a month, if you can.

10 MR. HOOD: Can I proceed, please?

11 MR. HAYS: Over my objection.

12 Q. (By Mr. Hood) As to the documents that you have
13 produced, would you tell us first generally how these documents
14 in your opinion would have placed any manufacturer of asbestos
15 materials on notice of potential disease hazard to tire workers
16 in their work environment?

17 A. Well, the medical literature of asbestos indicates
18 that people who do pipe covering who are exposed to insulation
19 products get asbestos diseases, and there is nothing in the
20 medical or scientific literature to indicate that people who do
21 that kind of work with those kind of products wouldn't get
22 those kinds of diseases if they were handling the materials in a
23 rubber plant.

24 Q. So there is nothing then in those articles that
25 specifically refer to such a health risk to tire workers?

1 A. Not as tire workers, no.

2 Q. Have you contacted any industrial health official
3 or former official with the Goodrich, Goodyear, Firestone,
4 General Tire, Yates, Kelly Springfield or Michelin companies?

5 A. No.

6 Q. So with regard to the known or suspected health
7 problems in their companies at various times, you have no
8 knowledge?

9 A. No.

10 Q. Have you contacted any officials with the United
11 Rubber Workers Union or their industrial health personnel about
12 known or suspected health problems at various times in history?

13 A. Well, I have known Lou Beliczky for a number of
14 years.

15 Q. Specifically what, if anything, has he told you
16 concerning his knowledge of health hazards from exposure to
17 asbestos to tire workers?

18 A. I can't recall anything about asbestos. Our
19 initial concerns and contacts were about chemical hazards, I
20 think.

21 MR. RHODES: Excuse me, Mr. Hood. I'm sitting
22 right across from Mr. Castleman, and I can barely hear
23 you. It sounds to me like you are mumbling. Can you
24 enunciate a little bit better?

25 MR. HAYS: If there is a problem hearing,

1 considering we're in a large room and at a large table,
2 why don't we get a microphone brought down if they've
3 got one here.

4 MR. RHODES: I am four feet away from him.

5 MR. HAYS: You are not four feet away, you're
6 eight feet away, eight to ten feet away.

7 MR. HOOD: Do you want to measure it, or can
8 I proceed, please?

9 MR. HAYS: Well, if they can't hear, let's get a
10 microphone down. Somebody can order that.

11 Q. (By Mr. Hood) Do you know who with that union was
12 responsible for its membership's health and safety?

13 A. No.

14 Q. Do you know if that union was ever concerned with
15 the health and safety of tire workers or rubber workers from
16 exposure to asbestos?

17 A. I am sure they were at some point, but I don't
18 know when it started.

19 MR. GOSS: I didn't understand that answer.

20 MR. HOOD: "I am sure they were at some point, but
21 I don't know when it started."

22 MR. HAYS: There is a table down at this end
23 that is not in use. Four of you can sit around that,
24 if you would like to.

25 Q. (By Mr. Hood) Do you know of any complaints made

1 by industrial health officials of the United Rubber Workers
2 Union, or the tire manufacturing companies regarding the
3 exposure of the employees to either asbestos or talc?

4 A. No. I just don't know anything about the record
5 of such complaints that may or may not have been made.

6 Q. Are you aware of any epidemiological studies of
7 asbestos health hazards in the tire worker industry?

8 A. Well, I think the -- I think I mentioned that I
9 glanced at some kind of a NIOSH report, plant survey.

10 Q. That was done in 1970 is what you said I think on
11 Wednesday?

12 A. I thought it was more recent than that. But I
13 haven't seen it since. I thought it was in the '80s.

14 Q. You never have produced that report here in this
15 deposition. Can you further identify it for us and can you
16 produce it to us?

17 A. No. I think it must have just been thrown out.
18 Mr. Hays sent me materials, sent me a lot of articles from the
19 1980's and things about talc, and I just took one look at how
20 recent they were and excluded them from my review, because I
21 didn't feel like --

22 Q. That NIOSH report did not reference any health
23 hazard to tire workers from exposure to asbestos?

24 A. Well, I have forgotten exactly. I think they did
25 some chest X-rays on the guys. I just took a look at how

1 recent it was and put it aside. I was mainly interested in
2 earlier medical literature.

3 Q. Are you aware of any case report where a doctor
4 attributes asbestosis to a building occupant, and that being
5 his sole exposure?

6 A. Well, if a person worked in an industrial
7 facility --

8 MR. HAYS: That is such an unfair question, I
9 started just to let it slide, because I am sure the
10 Doctor can handle it. But you are saying exposure in a
11 building? Now, what does that mean? Does that mean an
12 industrial setting? A home? Does that mean a --

13 MR. HOOD: A building where -- I'll explain it
14 for you since you asked that.

15 MR. HAYS: All right.

16 MR. HOOD: Assuming the witness needs that.

17 Q. (By Mr. Hood) In a non-asbestos manufacturing
18 building.

19 A. You mean like a steel mill?

20 Q. Yes, any kind of location.

21 A. There is certainly plenty of cases of steel mill
22 workers and people like that who develop asbestos-related
23 disease.

24 Q. Of those people have they been working as
25 maintenance or insulation people in those facilities?

1 A. Well, they work -- certainly some of them have
2 worked as pipe fitters, people like that where they may have
3 actually touched the asbestos themselves, and others are just
4 working around it. And it's a well established risk to workers
5 in industrial settings generally where there is a lot of
6 asbestos insulation around. Some people are going to get
7 asbestos diseases.

8 Q. And when was that first reported in the
9 literature?

10 A. Oh, in the 1930s.

11 Q. And what was that article?

12 A. There were articles about clerks in asbestos
13 manufacturing plants, boiler riveters, 1934, 1935, Wooden
14 Glowing in '34, Page in '35. Chemical plant workers with
15 asbestosis in 1939.

16 Q. Who reported that?

17 A. I think the author was named Arnold, British
18 Journal tuberculosis.

19 Q. All of those are case reports. Are there any
20 epidemiological studies?

21 A. Epidemiological studies started to come later.
22 There were studies of lung cancer excess in workers who did,
23 who were described as boiler makers, steam fitters and asbestos
24 workers.

25 Q. When was that?

1 A. Breslow, American Journal of Public Health, 1954.

2 Q. What about non-asbestos workers?

3 A. Well, I mean steam fitters are not asbestos
4 workers. Boiler makers are not asbestos workers.

5 Q. Okay.

6 A. Plumbers, other people have been reported as
7 victims of asbestosis in case reports as well.

8 Q. I'm asking about epidemiological studies now.
9 Were there any before 1980?

10 A. Aside from Breslow? I am sure there were, but I
11 can't think of it off the top of my head.

12 Q. What is your understanding of the asbestos
13 exposure history of the tire workers from the Miami, Oklahoma
14 plant?

15 A. Well, I gather that there was a lot of asbestos
16 used as a thermal insulation material in the plant, both in
17 terms of specialized equipment used in rubber manufacturing, as
18 well as general pipe covering insulation that existed widely
19 throughout the plant.

20 Q. Where do you generally gain this general
21 information?

22 A. Just from conversations I have had with people.

23 Q. Who are those people?

24 A. I suppose I may have talked to Lou Beliczky about
25 that, but I am not sure. And I have read things about rubber

1 processing and rubber plants, tire plants, maybe some of those
2 articles by John Peters and other people that sort of describe
3 the way the plants are laid out. It's obvious that there is a
4 lot of heat involved, and a need for thermal insulation in an
5 industrial process like tire making.

6 Q. Who is John Peters?

7 A. He's one of the authors of medical studies of tire
8 workers.

9 Q. Is he considered an expert in this area?

10 A. I suppose so.

11 Q. Has he written extensively in the area?

12 A. He's written in the area.

13 Q. Have you ever met with him?

14 A. I don't think so.

15 Q. Do you know what his opinions are concerning a
16 health risk from exposure to asbestos in tire workers?

17 A. No.

18 Q. Who are some of the other scientists or authors
19 who you have conferred with that have written about the tire
20 worker or rubber industry?

21 A. I can't think of anybody with whom I have
22 discussed the rubber industry. I sat through some
23 presentations back in 1976, some of the earlier -- I guess it
24 was some of the earlier studies that were being done.

25 Q. Who is Dr. Thomas Mancuso?

1 A. He's a physician in the field of industrial
2 medicine.

3 Q. Is he highly respected?

4 A. I think so.

5 Q. Has he written in the field of industrial health
6 hazards to workers in the rubber or tire industry?

7 A. I don't know if he has or not.

8 Q. Has he written in the field of industrial health
9 hazards to workers from asbestos?

10 A. Yes.

11 Q. Is he an expert in those areas in your view?

12 A. Well, he was -- yes.

13 Q. And have you read his works?

14 A. Some.

15 Q. And the ones that you have read have dealt with
16 asbestos; is that correct.

17 A. Well, they dealt with asbestos, chromates,

18 Q. Are you aware of any reported health risk by
19 Mancuso from asbestos to tire workers?

20 A. No.

21 Q. Do you know who Dr. R.R. Monson is, M-o-n-s-o-n?

22 A. I have heard the name.

23 Q. Do you know if he's written anything in the
24 medical literature or scientific literature concerning the
25 health hazards to tire workers or rubber workers?

1 A. I believe he has.

2 Q. Have you read any of his works?

3 A. I may have. I think he and Peters were working
4 together.

5 Q. Do you know if he or Dr. Peters ever concluded
6 that there was a health risk to asbestos or from asbestos to
7 tire workers or rubber workers?

8 A. I don't know whether they ever investigated that.

9 Q. Whether they investigated it or not, do you know
10 what they concluded?

11 A. No, I don't know if they made any such
12 conclusions.

13 Q. And you have not reviewed the literature to see
14 what they have written on this subject?

15 A. No. Well, not on asbestos, no.

16 Q. Nor have you read what they have written in the
17 field of health hazards to rubber or tire workers?

18 A. I may have seen some things, but I mean I know I
19 have, but it's been years since I looked at that stuff, and I
20 was mainly looking at it with interest in chemical hazards.

21 Q. Have you read works by Dr. McMichael, A.J.
22 McMichael?

23 A. I have seen the name.

24 Q. Do you know what he's written on?

25 A. I can't remember.

1 Q. Have you read any works by him concerning health
2 hazards to tire or rubber workers?

3 A. I may have glanced at a couple of articles of that
4 kind, but I can't recall anything about it.

5 Q. You haven't produced any yet?

6 A. No.

7 Q. What about Dr. H.A. Tyroler, T-y-r-o-l-e-r?

8 A. I don't know.

9 Q. You pronounce it Tyroler. Whatever he's written,
10 you don't know and you haven't produced?

11 A. Correct.

12 Q. Dr. Ted Williams, same thing would be true?

13 A. Yes.

14 Q. Dr. Harris, R.L. Harris, Mr. Harris, same thing
15 would be true?

16 A. Yes.

17 MR. HAYS: Is he a Doctor or Mister?

18 MR. HOOD: I think he's an engineer, an
19 industrial hygienist. I think he's a Mister.

20 Q. (By Mr. Hood) Do you know what asbestos materials
21 were actually used in the Oklahoma, Miami B.F. Goodrich plant?

22 A. Only in a general sense.

23 Q. So who the manufacturers of the materials were,
24 what types of materials, what the condition of those materials
25 were at the time various plaintiffs were employed at that

1 location, you have no knowledge?

2 A. I don't have specific knowledge. I have a fair
3 idea who some of the manufacturers were based on who was
4 represented at the deposition.

5 Q. What the content of the dusting powder thrown by
6 workers on rubber to act as a detacifier were at that location,
7 you have no knowledge?

8 A. That's correct.

9 Q. And whether or not asbestos or talc or talc
10 tainted with asbestos was used, and whether it had tremolite,
11 you have no knowledge?

12 A. You mean for the purpose of dusting the rubber?

13 Q. Right, at that specific location?

14 A. That is right, I don't have specific knowledge on
15 that.

16 Q. Whether or not there were cleavage fragments in
17 the tremolite which caused disease, you have no knowledge of
18 that?

19 A. Right, that's correct.

20 Q. Whether the talc was pure or not, whether it
21 caused disease or not you have no knowledge?

22 A. Well, I don't know about the details of the
23 constituents of the talc that was used. Whether it caused
24 disease or not is not a question for me.

25 Q. The effect of exposure by given plaintiffs to

1 carbon black you have to knowledge?

2 A. That's correct.

3 Q. To benzene you have no knowledge?

4 A. That's correct. I don't get involved in the
5 details of the individual plaintiff's chemical exposure.

6 Q. Polycystic aromatic carbon, a-r-o-m-a-t-i-c, you
7 have no knowledge? I am going to ask the same question as to
8 several substances.

9 A. I have no specific knowledge as to any
10 individual's exposure to polycystic aromatic hydrocarbons or
11 any other thing you asked me about.

12 Q. Would that also be true of anitoxidents?

13 A. Correct.

14 Q. Curing fumes?

15 A. Correct.

16 Q. Other solvents?

17 A. Correct.

18 Q. Naphthas?

19 A. Correct.

20 Q. Smog in the area from the ambient air?

21 A. Correct.

22 Q. Polyvinyl chloride?

23 A. You meaning vinyl chloride?

24 Q. P-o-l-y-v-i-n-y-l chloride?

25 A. No, I don't know what exposure they have to

1 polyvinyl chloride.

2 Q. Any additional medical problems they may have?

3 A. No. This all goes beyond the area of my
4 testimony.

5 Q. Whether or not there was a sufficient level of
6 airborne asbestos and/or talc particles to cause a high risk of
7 disease to any of the plaintiffs in these cases, you have no
8 knowledge?

9 A. I don't know what the levels of exposure were, if
10 that is what you mean.

11 Q. And whether or not there was air circulating in
12 these plants which was sufficient to emanate enough asbestos
13 or talc fibers so as to cause disease, you have no knowledge.

14 A. I don't understand your question. I mean the
15 fibers don't emanate by process of evaporation. The fibers are
16 released by abrasion, they may be released by air current, and
17 they may be recirculated that way.

18 Again, these details about industrial hygiene aspects in
19 the plant I am admittedly unfamiliar with.

20 Q. And whether or not adequate ventilation existed in
21 that particular plant for this air circulation you have no
22 knowledge?

23 A. Putting aside the use of the word adequate, I am
24 unfamiliar with the nature of the ventilation system that the
25 plant had.

1 Q. And you have no knowledge of what the tire
2 companies or their employers/employees knew about the health
3 effects of asbestos?

4 A. That is also true.

5 Q. And/or talc?

6 A. Yes.

7 Q. You have not talked with any of the plaintiffs in
8 these cases?

9 A. No.

10 Q. You have not read any depositions of any witnesses
11 in these cases?

12 A. No.

13 Q. Are you aware of any medical articles which deal
14 with the combined effects of asbestos or talc?

15 A. What do you mean the combined effects of asbestos
16 or talc?

17 Q. Well, are you aware of any medical articles which
18 report such a combined effect?

19 A. Well, only insofar as the medical literature
20 contains reports on asbestiform minerals present in talcs.

21 Q. And that would be the articles that you have
22 produced and we went over yesterday, the talc articles?

23 A. Yes.

24 Q. Do you know how the tire workers at the Oklahoma,
25 Miami plant compare to the blue collar workers in the United

1 States as to mortality or morbidity ratios from disease?

2 A. You mean overall life expectancy, things like
3 that.

4 Q. That's right?

5 A. No, I don't.

6 Q. Are you aware of specific communications of a
7 health-related problem in the tire worker industry of any of
8 the following companies? Do you understand the preface to the
9 question?

10 A. I am not sure I do.

11 Q. Are you aware of specific communications of a
12 health-related problem in the tire worker industry?

13 A. You mean to their employees?

14 Q. No. To any of the following companies that I'm
15 going to list. Some communication to these companies of a
16 health-related problem to persons working in the tire industry
17 or the rubber industry from exposure to their product. Do you
18 understand the preface to the question?

19 A. I am having trouble understanding. You mean, are
20 they saying that the tires are dangerous?

21 Q. No, that the work environment from these companies
22 products -- well, specifically, do you know of any specific
23 communication of that to the following companies?

24 A. I still don't understand you.

25 Q. Are you aware of any specific communications of a