

FILE NAME: DuPont (DUP)

DATE: 1997 Jan 30

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DOCUMENT DESCRIPTION: Legal - Deposition of Barry Castleman - Part 3

WITNESS CERTIFICATION

I, Barry Ira Castleman, Sc.D., hereby
certify that I have read the foregoing transcript of
my deposition taken in the aforementioned case on
January 30, 1997.

I further certify that the transcript is a
true and correct transcription of the deposition with
the addition of the errata sheet, which is hereby made
a part of the deposition.

Dated this ____ day of _____, 1997.

Barry Ira Castleman, Sc.D.

IN THE DISTRICT COURT OF JEFFERSON COUNTY, TEXAS

JANIE W. ADAMS, et al., *
Plaintiffs * 60th Judicial
v. * District
E.I. DuPONT De NEMOURS *
COMPANY, et al., * Case No.: B-152923
Defendants *
* * * * *

IN THE DISTRICT COURT OF DALLAS, TEXAS

STEPHEN L. BOWLES, et al. *
Plaintiffs * 192nd Judicial
v. * District
HANES COMPANIES, INC., et al. *
Defendants * Case No.: 95-08910
* * * * *

VOLUME III OF THE

VIDEOTAPED DEPOSITION OF BARRY IRA CASTLEMAN, Sc.D.

Volume III of the Videotaped Deposition of Barry Ira Castleman, Sc.D. was taken in the above-captioned case on Thursday, January 30, 1997, commencing at 9:56 a.m. at the Law Offices of Andrew Waters, 550 Light Street, Baltimore, Maryland 21202 and was reported by Sharon D. Livingston, a Notary Public.

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Baltimore, Maryland 21234
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1 APPEARANCES.

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 13 Refractories Company

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21 LARRY E. COTTEN, ESQUIRE
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 26 Fort Worth, Texas 76102-4127
 27 On Behalf of the Defendant, E.I. DuPont de
 28 Nemours

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 30 Andrews & Kirch
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 32 Dallas, Texas 75201
 33 On Behalf of the Defendant, Sarah Lee Corporation

34 Also Present: Brian Barton, Videographer

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1 STIPULATION

2 It is stipulated by and between the
 3 respective counsel for the parties that the reading
 4 and signing of the deposition by the witness is hereby
 5 waived.

6 THE VIDEOGRAPHER: January 30th, 1997 at
 7 approximately 9:56 a.m., we're back on the record.
 8 Our witness is Dr. Barry Castleman and is
 9 still under oath.

10 Whereupon,
 11 BARRY IRA CASTLEMAN, Sc.D.,
 12 the witness herein, being previously sworn to testify
 13 the truth, the whole truth, and nothing but the truth,
 14 was examined and testified as follows:

15 EXAMINATION

16 BY MR. COTTEN:

17 Q Dr. Castleman, as I told you yesterday, I'm
 18 here representing the duPont Company, and the case
 19 that I'm involved in -- well, let me ask you do you
 20 know the name of the plaintiff in the case that I'm
 21 defending for duPont that you're giving opinions in

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1 today?

2 A Adams.

3 Q All right, sir.

4 Now, with respect to the Lester Adams case
 5 brought by his wife Janie Adams, who at the duPont
 6 Company intentionally engaged in misconduct?

7 A I only know -- it's hard for me to point
 8 fingers at individuals. Information was reported to
 9 Dr. D'Alonzo in the Trip report of Gordon Stopps in
 10 1964.

11 Certainly information was available to the
 12 company that was publicly disclosed in Dr. Schepers'
 13 chapter of the text.

14 Mr. Keuper's boss was another person who was
 15 informed about problems of asbestos and the dangers of
 16 cancer to workers exposed to asbestos.

17 Q Are you saying that Dr. D'Alonzo
 18 intentionally engaged in misconduct?

19 A I don't know. It's hard for me to
 20 understand what anyone's intentions were from the
 21 documents alone --

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1 Q All right, sir.

2 A -- and I -- you know, I don't -- I'm not
 3 comfortable trying to draw conclusions about people's
 4 intent.

5 Q That would be true with respect to Dr.
 6 Stopps as well?

7 A Yes.

8 Q That would be true with respect to Dr.
 9 Schepers?

10 A Yes. I think Dr. Stopps and Dr. Schepers
 11 were inclined to protect workers from health and
 12 safety hazards.

13 Q That would be true also with respect to Ken
 14 Keuper?

15 A Yes.

16 Q And with respect to Ken Keuper's boss, do
 17 you ascribe any ill intention on the part of Ken
 18 Keuper's boss?

19 A Well, I think that Mr. Keuper ascribed at
 20 least a bad attitude to the boss in not acting on his
 21 recommendations.

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1 Q Now, that's not what Dr. -- what Ken Keuper
 2 said in his deposition is it?

3 A I think we can take a look at the deposition
 4 and that will be the best evidence of what Ken Keuper
 5 said.

6 Q All right. Did you -- which deposition was
 7 that? Do you remember?

8 A No.

9 Q All right. Was that one of the depositions
 10 or parts of depositions that you had in your duPont
 11 file?

12 A I think so.

13 Q And have you ever talked to Ken Keuper?

14 A No.

15 Q Have you ever talked to Ken Keuper's boss?

16 A No.

17 Q Have you ever talked to Dr. D'Alonzo?

18 A No.

19 Q Have you ever talked to --

20 A I didn't know -- is Dr. D'Alonzo still
 21 living?

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1 Q I don't know, sir. Doctor --

2 MR. WATERS: Let's go off the record for a
 3 second.

4 MR. COTTEN: Okay.

5 THE VIDEOGRAPHER: We're going to go off the
 6 record at 10:00 a.m.
 7 (Whereupon, discussion off the record.)
 8 (Whereupon, a brief recess was taken --
 9 10:00 a.m.)
 10 (Whereupon, after recess -- 10:07 a.m.)
 11 THE VIDEOGRAPHER: 10:07 a.m. We're back on
 12 the record.

13 BY MR. COTTEN:

14 Q And I don't remember, Dr. Castleman, exactly
 15 where we left off, but I wanted to ask you with
 16 respect to Dr. Schepers, you've not talked to him
 17 specifically about this Adams case have you?

18 A No.

19 Q And when is the last time that you were in
 20 Dr. Schepers' presence?

21 A Six months to a year ago.

1 Q Do you know that Dr. Schepers is still
2 testifying in lawsuits?
3 A I don't know. He was then.
4 Q And do you know that Dr. Schepers is often
designated and testifies on behalf of plaintiffs in
asbestos-related cases?
6 MR. WATERS: I'm going to object. That
7 calls for speculation.
8 MR. COTTEN: I'm asking him if he knows.
9 A I know he testifies as a fact witness often
10 at the invitation of plaintiffs' attorneys, yes.
11 Q Do you know if he testifies as an expert
12 witness?
13 A I assume he probably does that, too.
14 Q Have you talked with -- and I apologize if
15 I'm repeating myself -- Ken Keuper about this
16 matter --
17 A No.
18 Q -- the Adams case? Have you talked to Ken
19 Keuper's boss --
20 A No.

1 Q -- about this?
2 Do you know anything about -- other than
3 what you infer from the language in Ken Keuper's
4 deposition that you talked about yesterday --
5 A No.
6 Q -- do you know any -- I'm sorry.
7 A I can't go beyond -- in terms of what I
8 know, it doesn't go beyond the deposition and the
9 written record.
10 Q And with respect to that deposition
11 concerning Ken Keuper, did you have the entire
12 deposition?
13 MR. WATERS: Do you mean now or recently, or
14 do you mean at any time?
15 MR. COTTEN: Any time that he formed his
16 opinion about Ken Keuper's -- what he said about Ken
17 Keuper and about Ken Keuper's boss.
18 A My file did not contain the entire
19 deposition, but I have since obtained the entire
20 deposition.
21 Q All right. And when did you obtain it?

1 A In preparation for this case.
2 Q All right. How many days ago?
3 A I don't know at what point it was added to
4 my file. I mean, this goes back over a period of time
5 between now and November, and I've had discussions
6 with Mr. Waters.
7 Q All right. It was something that Mr. Waters
8 brought to your attention?
9 A Yes.
10 MR. WATERS: Well, wait. Let me object to
11 that. He already was familiar with the deposition
long before I became a lawyer, probably.
12 Q As far as this -- the specific deposition,
13 the entirety of the deposition, that's something that
14 you obtained from Mr. Waters?
15 A Yes.
16 Q So is it correct that you're unable to
17 identify any specific individual that you know
18 intentionally engaged in misconduct with respect to
19 Lester Adams in this case?
20 A That's right.

1 Q And you don't know on what dates -- if there
2 were any acts of misconduct, on what dates those acts
3 would have occurred?
4 MR. WATERS: Well, I mean, that's a --
5 that's a little bit of a trick question. The acts
6 that are complained of are a series of exposures to
7 asbestos in the '50s, '60s and '70s, and you're trying
8 to act like it's a car wreck and there's two incidents
9 or something like that.
10 We're talking about corporate conduct on
11 behalf of an entire corporation over a long period of
12 time.
13 MR. COTTEN: Okay. I understand your
14 position, Mr. Waters. I'm trying to examine the
15 witness.
16 MR. WATERS: Well, I think the question is
17 confusing. Well, whatever. I've made my objection.
18 Q All right. Could you answer the question.
19 A I'm sorry. What's the question again?
20 Q Is it correct that you do not know on what
21 dates any misconduct, if there was any, occurred?

1 A I can't point to specific meetings and dates
2 and people that were present at the meetings in a
3 manner like that.
4 No, it's not -- it's not -- the facts don't
5 lend themselves to that kind of a simple analysis.
6 Q Or specific analysis?
7 A Well, at least as to persons and dates, no,
8 it doesn't.
9 Q Is it your opinion that duPont as Lester
10 Adams' employer did intentionally engage in misconduct
11 in this case?
12 MR. WATERS: That is -- that is not a
13 subject of expert opinion unless you define what
14 conduct you're talking about.
15 MR. COTTEN: It has a lot to do with the
16 questions you asked him yesterday and I'm focusing on
17 --
18 MR. WATERS: Right. But I asked him to
assume certain things in my questions.
19 MR. COTTEN: That's right.
20 MR. WATERS: And one of them -- one of them

1 I asked him to assume was that there would be evidence
2 in this case that this man was exposed over a long
3 period of time --
4 Q Okay. Let me ask you this.
5 MR. WATERS: -- and that's the misconduct
6 that's complained of.
7 Q Let me ask you about this.
8 Do you know of any fact -- and I want to
9 find out separate and apart from what this lawyer asks
10 you to assume -- do you know any fact about an
11 exposure to asbestos by Lester Adams?
12 A I don't know of my own knowledge --
13 Q All right.
14 A -- if that's what you mean. I mean, I
15 wasn't present at the time of Mr. Adams' exposure.
16 Q When was Mr. Adams exposed, according to any
17 information that you have?
18 A I understand his exposure started in the
19 1950s and continued for decades thereafter.
20 Q All right. Let's talk about that.
21 In the 1950s, what kind of job did Lester

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1 Adams have at the Kinston facility for duPont?
 2 MR. WATERS: Well, again, I gave him the
 3 facts. It was very clear what facts I gave him.
 4 I represented, and I stand on my
 5 representation as to what the evidence in this case
 6 will be.
 7 MR. COTTEN: Andy, I'm just asking this
 8 witness what he knows. I'm entitled to do that, and I
 9 would appreciate it if you'd quit interrupting.
 10 MR. WATERS: Well, I'm making an objection.
 11 MR. COTTEN: Then state your objection.
 12 We reserved objections except as to form and
 13 responsiveness and if you would please quit
 14 interrupting.
 15 MR. WATERS: Well, I'm going to make an
 16 objection when I think what you're asking is
 17 misleading of the witness.
 18 MR. COTTEN: I'm not mislead -- I'm asking
 19 what he knows. He can tell me he knows it or he
 20 doesn't know it.
 21 MR. WATERS: Okay.

1 Q What jobs did Lester Adams have in the
 2 1950s?
 3 A I understand that he was a sheet metal
 4 worker --
 5 Q Okay.
 6 A -- in the plant.
 7 Q In the 1950s?
 8 A That's all I know. I --
 9 Q All right. And you know that from what
 10 information?
 11 A From what Mr. Waters told me.
 12 Q All right. What job or jobs did Lester
 13 Adams have in the 1960s?
 14 A My understanding is that he was a sheet
 15 metal worker, period. I don't know any more about --
 16 Q Okay. And that would be --
 17 A -- the details of his employment, what his
 18 job category was called, what his pay rate was or any
 19 of that.
 20 Q All right. Now, with respect -- and that
 21 would be true with the '70s too?

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1 A Right.
 2 Q All right. Is it important to you, at all,
 3 when you give opinions about a defendant, or
 4 specifically duPont in this case, to know anything
 5 about the nature and the circumstances of the alleged
 6 exposures of the employee when giving an opinion about
 7 the substantial certainty of the employer?
 8 MR. WATERS: Substantial -- I'm sorry.
 9 Substantial certainty of knowledge?
 10 MR. COTTEN: Substantial certainly that the
 11 employee would suffer serious injury or death.
 12 A Well, clearly you need to know something
 13 about the person's exposure history, the time which it
 14 occurred and basically the type of work and products
 15 to which he was exposed.
 16 Q Based on your understanding that you've
 17 gleaned from all of the materials that you reviewed
 18 and the courses that you've taken and your general
 19 experience, is it your understanding that all persons
 20 who have an exposure to asbestos get lung cancer?
 21 A No.

1 Q Do you know what Lester Adams died of?
 2 A I understand he died of lung cancer.
 3 Q And not mesothelioma?
 4 A Yes.
 5 Q Do you know whether Lester Adams had
 6 asbestosis or not?
 7 A I understand that he did not. He had a body
 8 burden of asbestos that was substantial, but he was
 9 not judged to have asbestosis.
 10 Q And what do you mean by substantial body
 11 burden of asbestos?
 12 A He had asbestos in his lung, in his lung
 13 tissues.
 14 Q Do you know the volume of asbestos in his
 15 lung tissue?
 16 A No, I don't know the specific numbers.
 17 Q Is that of any importance to you in arriving
 18 at any opinions that you have in this case?
 19 A Not to know the specific numbers, no.
 20 Q In order for someone -- and you can tell me
 21 if you don't know or if this is outside your area of

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1 expertise, but I need to -- I need to find out from
 2 you.
 3 Do you have an opinion as to what the
 4 circumstances are with respect to exposures that are
 5 required to lead to lung cancer, specifically as to
 6 level of exposure?
 7 A I think it's a widely held view that lung
 8 cancer risk exists at any level of exposure, and as
 9 the exposure increases the risk of lung cancer
 10 increases and that there's not any set -- any
 11 threshold of exposure below which there is only a
 12 normal or nonoccupational lung cancer risk.
 13 Q Let me see if I understand what you're
 14 saying.
 15 Can a person who does not work in an
 16 occupation where they're exposed to asbestos fibers
 17 still get lung cancer from asbestos?
 18 A Sure.
 19 Q And where would they get their exposure?
 20 A Well, it could be from household exposure,
 21 could be from neighborhood exposure, could be from

1 working with consumer products. Like Gordon Stopps
 2 says in his Trip report, a home handyman doing
 3 insulation work on his house gets a substantial
 4 exposure to asbestos, people who work with drywall
 5 spackling compounds that used to be sold in the 1970s,
 6 before we got asbestos banned in those products by the
 7 Consumer Products Safety Commission.
 8 There are opportunities for people to obtain
 9 exposures on the job and off the job that could cause
 10 lung cancer.
 11 Q Do you know what the -- what circumstances
 12 are required with respect to duration of exposure?
 13 MR. WATERS: Let me just make sure I
 14 understand the question.
 15 Are you asking him what is du -- what
 16 duration is required?
 17 MR. COTTEN: Yes.
 18 MR. WATERS: Okay. Duration. All right.
 19 A Well, the medical literature reflects that
 20 short -- short exposures, exposures of short duration
 21 which are high are capable of causing lung cancer.

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1 Even epidemiological studies have shown that.
2 And lung exposures to lesser fiber
3 concentrations will also give a fiber burden that can
4 cause lung cancer.

Q When you say lesser, are you talking in
terms of the quantity of the fiber, or are you talking
7 about the amount of time of the exposure?

A I think I was talking about quantity and
9 time distinctly.

Q All right. Does the -- is there a way to
11 make a determination as to percentage of risk or
12 likelihood of a lung cancer being caused by an
13 asbestos exposure dependent upon the level of
14 exposure, duration of exposure, proximity of exposure,
15 regularity of exposure?

MR. WATERS: All right. But with no
17 reference to cigarette smoking, for example?

MR. COTTEN: Yes. Let's just talk right now
19 just about asbestos and not about any complicating
20 factor.

A Well, those factors as well as the lung

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1 It's a little hard to answer in the
2 abstract.

Q With respect to the record concerning Lester
4 Adams, you're not aware of how much -- let me withdraw
5 that -- you're not aware of any specific instance of
6 exposure for Lester Adams?

MR. WATERS: As in on a given day?

Q On a given day, at any time during his 27
9 years at the duPont Kinston facility.

A No. I mean, as far as I know his exposures
11 were not monitored, there is no measurement data on
the levels of asbestos to which he was exposed, and so
that's an undocumented issue.

Q And as far as him actually being exposed,
15 that would be from information that you've gained from
16 Mr. Waters?

A Well, it would be on the basis of him being
18 a sheet metal worker, and sheet metal workers work
19 around insulation, and sheet metal workers have a --
20 there have been more recent reports of asbestos,
21 pathology evident on the chests X-rays of sheet metal

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1 finding out about the knowledge of asbestos in the
2 literature, did your -- did you keep records of when
3 the libraries that you found these publications and
4 articles and reports actually received those
5 publications?

A No. In most cases the libraries did not
7 have any kind of a stamp on the cover page of a
8 journal indicating when it was received.

I mean, if you went to the Armed Forces
10 libraries you'd probably find stamps like that because
11 they kind of go berserk stamping things. But in
12 general, libraries do not do that.

On the other hand, journals are issued only
14 once. Unlike textbooks like my book, there's no such
15 thing as a Fourth Edition of the July 27th, 1924 issue
16 of the British Medical Journal.

And so I generally assume that these
18 libraries had these journals on or about the time that
they came out.

Q Would it be correct, sir, that like the
21 questions that I asked you concerning Dr. D'Alonzo,

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1 burden are things that -- and the presence or absence
2 of asbestosis are certainly things that pathologists
3 would consider in offering medical opinions on the
4 subject of that kind.

Obviously, that's not something that I would
6 be expected to testify about.

Q All right. But as far as your general
8 understanding that you gained from studying about
9 asbestos all these years, those type of factors are
10 important with respect to making a determination as to
11 the likelihood of the cause of lung cancer rising from
12 asbestos?

A Yes.

Q Do you have an opinion about whether the
15 risk of lung cancer is greater for an employee that
16 was an insulator as opposed to a sheet metal worker?

A All other things being equal, I would
18 suppose that the insulator would probably get more
19 exposure to airborne asbestos, but I'm sure that on
20 some days there were sheet metal workers who got more
21 exposure than insulators did.

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1 workers.

Q And how recent?

A Well, it was within the past few years.

Q All right. Do you know, sir, what the risk
5 is of a 20-year-pack-a-day smoker, without other
6 complicating factors, to develop lung cancer?

MR. WATERS: Let me just object that I think
8 it's an incomplete hypothetical unless you state when
9 that individual may have ceased smoking because I
10 think that goes into the issue as well.

MR. COTTEN: Okay. I'm just asking him my
12 question now.

A This is really beyond my area of expertise
13 and specialization.

I really don't read the medical literature
16 on risks associated with specific degrees of cigarette
17 smoking and the various compounding factors such as
18 time since cessation of smoking in the case of an
19 individual who stopped before being observed or
20 monitored for lung cancer.

Q With respect to the research that you did in

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1 Dr. Stopps, Dr. Schepers, Ken Keuper and Ken Keuper's
2 boss, that you're unaware of any specific fact as to
3 any misconduct on the part of duPont at the Kinston
4 facility where Lester Adams worked with respect to
5 Lester Adams?

A That's right. I don't know anything about
7 the management of that duPont facility.

Q Sir, you -- part of your education concerned
9 air pollution control, did it not?

A Right.

Q And air pollution control involves the
12 identification measurement and control of public
13 exposure to airborne agents which are deemed harmful
14 to the public; is that --

A Yes.

Q -- right? What do you mean by
17 identification with respect to air pollution control?

A Well, it could mean several things. There
19 are -- there is identification in the chemical sense
20 when you're doing analysis and sampling that you want
21 to be as specific as possible for the agent that

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1 you're monitoring for.
 2 There is also identification from a public
 3 policy point of view in picking the most important
 4 pollutants from a public health standpoint and
 5 addressing these first given the -- always given the
 6 limitation of resources to address anything and
 7 everything and given the -- just the -- I guess it's
 8 just basic common sense that you don't want to impose
 9 enormous costs on some company to control a couple
 10 pounds of some air pollutant that's not really causing
 11 any problem or harmful to anybody.

12 So it's a -- you know, in the field of
 13 public health you have to do what you can to control
 14 the worst problems --

15 Q All right. So --

16 A -- and hope that you can do that.

17 Q -- identification would be, in part, a
 18 process where you make a determination as to what it
 19 is you're looking for in order to make an assessment
 20 as to the degree of the problem that it might be?

21 A Well, what I mean is I took these things

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1 that's in the environment?

2 A Usually you have to -- you have to or you
 3 would prefer to be able to conduct measurements and
 4 sampling so that you can see, for example, if control
 5 measures are taken, how much reduction of emissions
 6 has occurred.

7 Q And, of course, it depends upon the
 8 pollutant that you're looking for how important it is
 9 to -- let me withdraw that.

10 Depending upon the pollutant that you're
 11 looking for, your measurement would tell you whether
 12 or not you need to invoke controls for that pollutant?

13 A Well, again, it depends on the -- on other
 14 factors. If the pollutant is a pollutant which is
 15 addressed by some national emissions standard or by
 16 some ambient air quality standard, then you would have
 17 some reference point with -- for which -- with which
 18 to compare the measured exposures or emissions against
 19 legal limits.

20 In other cases you might be dealing with a
 21 pollutant for which no such limits occur, but you

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1 A Not necessarily. Sometimes the literature
 2 simply says, as in the case of the asbestos
 3 literature, that people doing certain kind of jobs get
 4 lung cancer, asbestosis and mesothelioma.

5 And you don't really have to have sampling
 6 and analysis at the workplace for people who are
 7 similarly exposed.

8 Q Now, with respect to the control of the
 9 agent that may be deemed harmful, what do you mean by
 10 control?

11 A Well, control means trying to reduce human
 12 exposure. If it's an air pollutant, you don't have
 13 the option that employers might have of handing out
 14 respirators to the exposed persons. You have to
 15 control the source.

16 Q And sometimes does control include
 17 elimination and sometimes not?

18 A Right. Well, I mean it may not include --
 19 involve elimination, but if it's control it would at
 20 least seem to imply some reduction in exposure, if not
 21 necessarily elimination, and I suppose that's what you

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1 probably in the wrong order. The first decision is
 2 which pollutants do you want to monitor for?

3 And then it's a more technical question of
 4 how do you do the monitoring so that you're really
 5 only counting the concentration of that pollutant and
 6 not being confounded by something else.

7 Q All right. So it's first important to
 8 identify what it is that you're trying to deal with?

9 A Right.

10 Q And then I believe you then attempt to
 11 measure that particular pollutant?

12 A Well, I was just trying to interpret the
 13 words. It looks like you're reading from some
 14 transcript of a deposition or trial testimony, and I'm
 15 just trying to figure, you know, from sentences out of
 16 context what I might have been talking about.

17 Q All right. I don't mean to take it out of
 18 context. I'm just trying to find out what air
 19 pollution control is.

20 Now, the measurement part of it, though, is
 21 to measure the degree of the potential pollutant

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1 might be using more general duty clause type of
 2 authorities to invoke some protection of the public
 3 health.

4 Q If there are no standards with respect to
 5 the pollutant that you're attempting to measure, then
 6 you don't have anything to measure it against, is that
 7 right?

8 A No, you still have the medical and
 9 scientific literature. I mean, if you have a
 10 knowledge base that shows that certain exposures are
 11 associated with disease and you -- and you see that --
 12 either from the circumstances you're observing or from
 13 actual measurements of the exposure that a similar
 14 situation is arising in the case you're interested in,
 15 then it seems to me you have justification for trying
 16 to do something about it.

17 Q So the medical and scientific literature
 18 would have to be specific enough concerning the levels
 19 at which that particular pollutant may be dangerous in
 20 order to use that as a measure for controlling the
 21 particular pollutant?

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1 were asking me.

2 Q We talked a little bit yesterday about your
 3 background.

4 I think we concentrated most on your
 5 education, but I wanted to ask you a few things about
 6 some of the places where you were employed.

7 Were you employed by the Maryland Public
 8 Interest Research Group in Washington, D.C.?

9 A Yes.

10 Q And were you fired by that board of
 11 directors for Maryland Public Interest Research Group?

12 A Yes, I was.

13 Q And in 1972 you worked for the Baltimore
 14 County Division of Air Pollution?

15 A Division of Air Pollution and Industrial
 16 Hygiene. 1972 and 1973.

17 Q All right, sir. And at one time you were
 18 fired from that job also; is that correct?

19 A I was fired from the job for testifying at a
 20 Congressional hearing and naming the names of
 21 companies that used asbestos in Baltimore County. I

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1 was subsequently rehired with full back pay.
 2 Q Did you have to take legal action to get
 3 reinstated?
 4 A No. It was threatened but it was not taken
 -- it was not taken.
 5 Q Would you agree with me that you have no
 6 firsthand experience in industrial hygiene practices
 7 during the 1930s, '40s, '50s and '60s?
 8 A I would agree with that.
 9 Q Would you agree with me that you were not
 10 reading any industrial hygiene literature in the
 11 1930s, '40s, '50s or '60s?
 12 A That's right. I went into the field of
 13 public health in 1970 really with a Master's program
 14 that I took to go into air pollution control.
 15 Q And before that time you were not reading
 16 any medical or scientific literature relating to
 17 asbestos?
 18 A No, I was unaware of the fact that asbestos
 19 was dangerous until 1970.
 20 Q And your knowledge and experience of

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1 industrial hygiene practice in the 1930s, '40s, '50s
 2 and '60s is based on what you have subsequently been
 3 told and read?
 4 A Right.
 5 Q Have you ever worked for a chemical plant?
 6 You did work for Hercules; is that right?
 7 A Yes. I worked for the chemical company,
 8 Hercules, Incorporated, at their research center.
 9 Q And when you did that was any of your work
 10 involved in the health risks associated with asbestos
 11 exposure?
 12 A No, I was unaware of any dangers associated
 13 with asbestos at that time.
 14 Q What was your job title for Hercules?
 15 A Chemical engineer.
 16 Q Have you ever published any studies specific
 17 to industrial hygiene practices at chemical plants?
 18 A No.
 19 Q Would you agree that you've never worked as
 20 an epidemiologist in industry?
 21 A I would agree I have never worked as an

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1 epidemiologist in industry.
 2 Q In the United States is it accurate that
 3 the use of asbestos was at its historical peak in
 4 1971?
 5 A No, that came a little -- a few years later.
 6 Q Would you say 1974?
 7 A '73 or '74 was the actual peak year,
 8 although it was topping out in the early '70s.
 9 Q And you know, sir, from the materials that
 10 you gathered that you keep in your duPont file that by
 11 19 -- that time -- at the same time of the historical
 peak of the use of asbestos in this country, that the
 duPont Company was taking measures to curb the use of
 14 asbestos products?
 15 MR. WATERS: That would -- I apologize. Did
 16 you state the date in your question?
 17 MR. COTTEN: 1974, '73, '74.
 18 A Yes, I believe they were by that time.
 19 Q Is there a -- do you have in mind, as far as
 20 the gathering of the publications and the scientific
 21 literature and the medical reports upon which you rely

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1 for your opinions, the time period when you actually
 2 gathered that information?
 3 A You mean the duPont file?
 4 Q I'm really talking about in general. Let me
 5 -- let me rephrase it this way.
 6 What were the years when you went out and
 7 specifically were going to libraries doing your basic
 8 research with regard to the knowledge, historical
 9 knowledge of asbestos?
 10 A Well, when I wrote my Master's thesis in
 11 1970 and '71 I was reading historical documents as
 12 well as more or less current ones.
 13 The focus on the history of this problem
 14 didn't come until five years later, and that was in
 15 1976.
 16 And you know, then that's pretty much
 17 continued off and on since that time, you know, going
 18 to libraries from time to time and sometimes spending
 19 a lot of time in the library depending on which year.
 20 Q And with respect to the bulk of that work
 21 that you did, you did that before you returned to

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1 school for your doctoral work?
 2 A I certainly did a great deal of it before
 3 1981.
 4 Q And the reason why you went -- one of the
 5 reasons why you went back to school in 1981 for your
 6 doctoral work was to learn about toxicology,
 7 epidemiology and biostatistics; is that right?
 8 A I wanted to have more formal training in
 9 those areas than I already had. I wanted to add to
 10 what I already knew about these things.
 11 Q And that was to enable you to best
 12 understand the scientific literature that you had to
 13 deal with in making decisions or the type of decisions
 14 that you wanted to be able to make regarding
 15 protection of the public health from toxic substances;
 16 isn't that right?
 17 A Yes.
 18 Q In your direct testimony in this case to Mr.
 Waters' questions you mentioned the first report with
 respect to disease in an asbestos worker, I think, as
 21 being a report in 19 -- in 1899 out of Great Britain;

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1 is that --
 2 A Right. Well, at least the first report in
 3 the English language.
 4 Q Now, was this of a worker in an asbestos
 5 plant?
 6 A Well, it was the report of the -- mostly the
 7 report of the lady inspectors of factories talking
 8 about their experience in the factory setting where
 9 asbestos was used as a raw material.
 10 It wasn't about a specific worker. They
 11 talked about seeing cases of lung disease and
 12 attributing it to the dust.
 13 Q When was the first article about the -- or
 14 the article about the 33-year-old woman who had
 15 started working in the asbestos plants at age 13?
 16 A That's Nellie Kershaw. The article was in
 17 1924 by Dr. Cooke.
 18 Q Now, that -- was that the first specific
 19 case report in the English language concerning a case
 20 report?
 21 A Well, it was the first one published in a

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1 widely read medical journal.
 2 The report of Dr. Montague Murray in 1906 or
 3 1907, depending which reference you look at, was
 4 probably -- is generally regarded as the first case in
 5 the modern era of asbestosis, but that was not
 6 published in a widely read medical journal.
 7 It was published in, I think, something
 8 called the Charring Cross Hospital Gazette, and it was
 9 also published as a part of proceedings before a
 10 parliamentary committee of the British Government.
 11 Q I believe that you testified that that's --
 12 and you have it on your Exhibit 3 concerning what you
 13 believe to be duPont knowledge about asbestos as a
 14 memo or a document that Dr. Stopps was familiar with.
 15 A Yes. Dr. Stopps certainly had heard about
 16 that by 1966.
 17 I'm sure that the Montague Murray case was a
 18 matter of discussion at the conference he attended two
 19 years earlier in New York as well.
 20 Q Is that Dr. -- one of Dr. Selikoff's
 21 conferences?

1 A Right.
 2 Q What type of employment did the person that
 3 was reported in the 1907 Murray article -- what type
 4 of employment did that person have?
 5 A He worked in an asbestos -- I think it was
 6 an asbestos textile plant. He also died at the age of
 7 33.
 8 Q What -- can you compare the conditions of
 9 the asbestos textile plant that that person worked in
 10 with the Kinston plant involved in this suit?
 11 A I'm sure that the conditions in that
 12 asbestos textile plant were very intense in terms of
 13 the exposure, much greater than would have been
 14 sustained by people handling asbestos insulation
 15 products at the duPont facility.
 16 And the reason I'm saying this is because
 17 exposures capable of producing death at the age of 33
 18 are remarkable, and they really are something that the
 19 literature indicates is what you'd find in a totally
 20 uncontrolled asbestos manufacturing situation as
 21 existed at the turn of the century.

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1 Q Do you know anything about the type of
 2 preventative measures or controls that were in
 3 existence at the duPont Kinston facility during the
 4 time that Lester Adams was an employee there?
 5 A Controls on the question of asbestos?
 6 Q Yes, sir.
 7 A I'm not aware of controls that were enforced
 8 at that plant.
 9 Q All right. Now, Dr. Cooke also published --
 10 was published in the British Medical Journal in 1927;
 11 is that right?
 12 A Yes, that's right.
 13 Q And that article -- the subject of that
 14 article was the same woman that was the subject of the
 15 1924 article; is that right?
 16 A Yes.
 17 Q And in that article Dr. Cooke talks about
 18 suspicions being raised regarding asbestos dust and
 19 the cause of lung conditions, and this was with
 20 workers in badly ventilated factories; is that right?
 21 A I don't recall the exact language used, but

1 certainly Cooke was, in his way, making a case for
 2 controlling exposures so that people wouldn't die at
 3 the age of 33 from occupational lung scarring
 4 diseases.
 5 Q Let me ask you if -- I want to read this and
 6 could you tell me if I'm reading it correctly?
 7 A Sure.
 8 Q And this is in the Cooke article from 1927.
 9 It says the remark of Dr. Murray's patient
 10 is suggestive and medical men have longed suspected
 11 asbestos dust to be the cause of lung conditions in
 12 workers in badly ventilated factories.
 13 Is that what that says where this highlight
 14 is (indicating)?
 15 A Yes, it does.
 16 MR. WATERS: May I see that?
 17 MR. COTTEN: Sure. (Indicating).
 18 Q What is a carding process?
 19 A It's part of a textile process. It's part
 20 of an as -- of a textile plant. I think it has to do
 21 with the straightening or the orienting of the fibers

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1 before the weaving process.
 2 Q And would that be of raw asbestos fibers in
 3 an asbestos factory?
 4 A It would either be of just asbestos or it
 5 might have asbestos and cotton mixed at that stage. I
 6 really don't know.
 7 Q Does Dr. Cooke's 1927 article also include
 8 statements about the atmospheric conditions where this
 9 woman worked as being so bad that workers in her
 10 particular room could not see each other?
 11 A I don't remember the exact language. It may
 12 well be there.
 13 Q All right. Do you --
 14 A Let me maybe simplify things by saying that
 15 that was certainly reported in asbestos textile plants
 16 that I've heard about during a period of no control
 17 measures.
 18 Q And do you understand that the factory that
 19 was involved in this article in 1927 by Dr. Cooke,
 20 that the factory had made no efforts for the
 21 extraction of dust at that plant?

1 A Again, I don't -- I don't recall, but that's
 2 consistent with the effects reported on the worker.
 3 Q And with respect to this 1927 Cooke
 4 article, I believe you mentioned that it was the first
 5 time that the word asbestosis appeared in medical
 6 literature?
 7 A Right.
 8 Q And would you agree with me that the only
 9 place that the word asbestosis shows up is in the
 10 title of the article?
 11 A I haven't really looked through the entire
 12 text to see if the word asbestosis appears anywhere
 13 else.
 14 Q All right. You talked a little bit in your
 15 direct testimony about the Journal of American -- of
 16 the American Medical Association.
 17 Do you know, sir, that in those 19 -- in the
 18 1928 and 1930 editorials published in the Journal of
 19 the American Medical Association that it was calling
 20 for more research to determine the extent of the
 21 problem in this country where cases had not yet been

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1 reported in the medical literature?
 2 A No, I think that was --
 3 MR. WATERS: Let me just -- if you're going
 4 to show him something and ask him if he recalls a
 quote or whatever, I mean, I think it's appropriate to
 show it to him.
 7 MR. COTTEN: I don't mind showing it to him
 8 at all.
 9 MR. WATERS: So he can put it in context.
 10 Q You can look. It really begins right in
 11 here and it ends right there (indicating).
 12 A Oh, no, we're not looking at an article.
 13 We're looking at a transcript. That's all right.
 14 MR. WATERS: A transcript of his testimony?
 15 MR. COTTEN: Yes.
 16 MR. WATERS: All right. Let's start over.
 17 What's the question again?
 18 MR. COTTEN: I want to know if he agrees
 19 that in the Journal of American Medical Association in
 20 1928, 1930, that he referenced yesterday or day before
 21 in his testimony, that those articles were warning

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1 worked there?
 2 A I don't see how I could given the limited
 3 information available.
 4 Q Have you ever visited the duPont Kinston
 5 facility in Kinston, North Carolina?
 6 A No.
 7 Q There's been some testimony in this case
 8 concerning some of the knowledge about the -- about
 9 asbestos that included mesothelioma.
 10 It is your understanding, isn't it, that
 11 mesothelioma is not involved in the Lester Adams case?
 12 A That's my understanding. Well, I mean it's
 involved -- it's involved in the sense that he should
 have been protected with it in mind that he was at
 risk of mesothelioma, but in terms of the pathology of
 his case it is not involved.
 17 Q When was it known that -- according to you
 18 that sheet metal workers were at risk for
 19 mesothelioma?
 20 MR. WATERS: By duPont or by the world at
 21 large?

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1 the time the duPont book was published in 1960, Dr.
 2 Schepers' chapter was noting the fact that pleural
 3 tumors were -- had been reported among people with
 4 asbestos exposures in the literature.
 5 MR. COTTEN: Objection. Nonresponsive.
 6 MR. WATERS: Let me just object that the
 7 question was vague in the context of whether it was
 8 calling for the state of general scientific knowledge,
 9 or more particularly, for state of duPont's knowledge
 10 concerning mesothelioma.
 11 Q The U.S. Bureau of Statistics didn't even
 12 recognize mesothelioma as a disease before 1967
 13 because it's so rare; isn't that correct?
 14 A I don't know about the details anymore, but
 15 it took a while for mesothelioma to be separately
 16 coded by the people who manage to do these things as a
 17 particular disease entity, yes, and a lot of the early
 18 cases were included as if they were a type of lung
 cancer.
 19 Q Part of your research and gathering of
 21 information concerning knowledge of asbestos included

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1 that more research was needed to see the extent of the
 2 problem in this country.
 3 A Yes. Well, they certainly called for that
 4 among other things.
 5 By the 1930 editorial there had been a case
 6 reported in the United States, and so you must -- what
 7 you're reading must refer to the 1928 editorial.
 8 Q All right. It's not clear here.
 9 Do you know who the subject was of that
 10 first medical article in -- or case report in the
 11 United States with respect to asbestos?
 12 A The author's name was Mills. It was
 13 published in a journal called Minnesota Medicine in
 14 1930.
 15 The subject was an individual who has -- was
 16 -- reportedly had worked in a South American asbestos
 17 mine 32 years before his death, as I recall.
 18 Q Can you compare the conditions with respect
 19 to asbestos of working in a South American asbestos
 20 mine prior to 1898 with the conditions at the duPont
 21 Kinston facility during the time that Lester Adams

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1 MR. COTTEN: Just known according to him.
 2 Q When did you know it?
 3 MR. WATERS: Well -- oh, when did he know
 4 it?
 5 MR. COTTEN: Yeah.
 6 A Well, I wouldn't have known about these
 7 things until the 1970s because I didn't have any
 8 knowledge about the hazards of asbestos until that
 9 time.
 10 But I think it could reasonably have been
 11 anticipated based on what was known after 1960,
 12 certainly if not before --
 13 Q For sheet metal workers?
 14 A -- that people with bystander exposure to
 15 asbestos insulation dust, such as sheet metal workers,
 16 were among those who were at risk of asbestos disease.
 17 Q What about mesothelioma? That was the topic
 18 of my question.
 19 A Oh, especially mesothelioma.
 20 Q By 1960?
 21 A 1960 or the early 1960s, '60, '62. And by

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1 gathering information from the National Safety
 2 Council; is that accurate?
 3 A Right.
 4 Q And could you describe for us how -- in
 5 terms -- in quantity terms, how many National Safety
 6 News monthly publications you've reviewed in trying to
 7 determine whether there were any articles that touched
 8 on the subject of asbestos?
 9 MR. WATERS: With respect to this case or
 10 more generally?
 11 Q Just more generally, overall.
 12 A Not that many. Most of the articles that I
 13 have found were located through the engineering index
 14 or the industrial arts index.
 15 I have not systematically gone through
 16 National Safety News volume by volume looking for
 17 every single article that might be relevant to the
 18 question of knowledge and hazards of asbestos disease.
 19 Q So the method that you were using in trying
 20 to find articles or journals that said anything about
 21 asbestos was to go to some type of index that would

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1 indicate that you could find it in a particular
2 volume?
3 A Well, at least with respect to this journal,
4 National Safety News.
5 What I have either came to me because
6 someone showed me a copy of an article I hadn't come
7 across, or I found it through -- through the types of
8 indexes I mentioned under headings like dust, disease,
9 industrial hygiene, general categories like that.
10 MR. WATERS: Larry, do you mind if we take
11 about a five or ten-minute break?
12 MR. COTTEN: No, I don't mind.
13 MR. WATERS: I need to use the facility.
14 THE VIDEOGRAPHER: We're going to go off the
15 record at 11:01 a.m.
16 (Whereupon, discussion off the record.)
17 (Whereupon, a brief recess was taken --
18 11:01 a.m.)
19 (Whereupon, after recess -- 11:15 a.m.)
20 THE VIDEOGRAPHER: 11:15 a.m. We're back on
21 the record.

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1 issue that lists several names of people that it shows
2 according to the document were either officers or
3 members at large or representatives for the National
4 Safety Council.
5 Do you recall that?
6 A Yes.
7 Q And to the extent that these people
8 participated in the National Safety Council and
9 received the National Safety News, are you saying that
10 these people and the companies that they work for
11 would therefore have the knowledge with respect to the
12 hazards of asbestos that is provided in the articles
13 that are contained within the issue?
14 A I'm saying that the companies for which they
15 worked were provided with the information that is
16 contained in that issue.
17 The presence of duPont official on the
18 governing board of the National Safety Council or the
19 editorial board of that publication indicates that the
20 company had a substantial interest in the publication
21 and in the National Safety Council's activities, and I

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1 that he's an officer but it shows that he's a member
2 at large?
3 A Well, he's a member at large of the
4 executive committee of the National Safety Council.
5 Q Okay. Rather than an officer?
6 A Well, I consider that an officer, but I
7 suppose in the arcane bureaucracy language people
8 might argue about that.
9 Q All right. I don't mean to argue with you
10 about it, but what I want to show you is there is a
11 separate listing of the officers as opposed to the
12 members at large (indicating).
13 A Yes, they are separately listed as officers
14 and then executive committee --
15 Q Members at large?
16 A -- whatever. Again, I don't profess to have
17 --
18 Q All right.
19 A -- specialized expertise about the meanings
20 of the various terms that different types of
21 bureaucracies use to describe their executive

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1 BY MR. COTTEN:
2 Q Dr. Castleman, prior to your testimony back
3 in November, Mr. Waters provided me with copies of
4 three documents that had to do with the National
5 Safety Council, and I believe you've talked a little
6 bit in this deposition about these articles and the
7 knowledge that you attribute to my client, the duPont
8 Company, as a result of having access to these
9 documents and having participated in the National
10 Safety Council.
11 Do you remember about those things?
12 A Generally, yes.
13 Q All right, sir.
14 Now, the National Safety News, sir, is a
15 newsletter or publication that was issued monthly by
16 the National Safety Council; is that right?
17 A I believe so.
18 Q And in the National Safety News publication
19 that -- for the month of September 1935 -- and this is
20 one of the ones that I was provided with by Mr.
21 Waters -- there is a listing on the first page of that

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1 would assume that the company was, certainly by 1935,
2 quite capable of routing publications like that to
3 professional people within the corporate structure who
4 would be best able to use it.
5 MR. COTTEN: Objection. Nonresponsive.
6 Q Dr. Castleman, I believe with my reading of
7 this roster of either officers or members at large, it
8 has an indication about Harold Miner and shows him to
9 be on the executive committee as a member at large and
10 not being -- having anything to do with the editorial
11 part of this.
12 Is that your memory about this document --
13 A Let me see it, please.
14 Q -- that it doesn't refer to him being on the
15 editorial section or however you referred to it?
16 A Well, that's right. He's listed as having
17 this role as an officer in the National Safety Council
18 and not necessarily being involved with the
19 publication, per se.
20 Q You talked a little bit about this last
21 time, but would you agree with me that it doesn't show

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1 officials however they're divided up.
2 Q And you don't know specifically what role
3 and what function Harold Miner performed with respect
4 to the National Safety Council?
5 A No, I don't.
6 Q Would you agree that this National Safety
7 News indicates that other companies that are involved
8 at the executive committee, members at large level,
9 include the Eastman Kodak Company?
10 A Yes.
11 Q Include the Association of American
12 Railroads?
13 MR. WATERS: I think he's going to have to
14 look at it for --
15 Q I know. I'm tethered here so --
16 A I just can't see that far.
17 MR. WATERS: No, I understand. I don't have
18 an extra copy.
19 A Why don't you read them all off and then
20 hand me the document and I can just give you one
21 answer for all.

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1 Q All right. That's great. That's a good
 2 suggestion.
 3 Bethlehem Steel Corporation, The Pullman
 4 Company, Chicago North Shore and Milwaukee Railroad
 5 Company, Industrial Commission of Ohio, U.S. Bureau of
 6 Public Roads, Portland Cement Association, the duPont
 7 Company is mentioned, General Electric Company,
 8 United States Steel Corporation.
 9 And then among the safety council
 10 representatives, Massachusetts Safety Council,
 11 Delaware Safety Council, Western Pennsylvania Safety
 12 Council, Kansas City Safety Council, Louisville Safety
 13 Council, Lehigh Valley Safety Council and Evanston
 14 Safety Council.
 15 Did I read those correctly?
 16 A I'm sure you did. Yes, these are the
 17 various officials that are listed on the cover -- on
 18 the title page of the 1935 National Safety News as
 19 various officials in the hierarchy of the National
 20 Safety Council.
 21 Q Do you know, based upon your work in this

1 field and your consulting with lawyers with respect to
 2 asbestos-related lawsuits and in arriving at your
 3 opinions in these types of cases, of any fact with
 4 respect to any of these companies that I've just --
 5 companies or organizations or entities that I've just
 6 named, of any of these companies engaging in -- other
 7 than what you say about duPont -- engaging in
 8 intentional acts knowing that those acts would be
 9 substantially certain to cause serious injury or death
 10 to their employees?
 11 A No. I think we could count the Association
 12 of American Railroads in that category. They had a --
 13 this is the trade association of the railroad
 14 industry, and they had meetings of their medical
 15 doctors starting in 1921, and by 1935 the medical
 16 doctors of the railroad industry were getting together
 17 and talking about asbestos as a hazard to railroad
 18 workers.
 19 Unfortunately, many of the member railroads
 20 did nothing about protecting the workers from the
 21 hazards associated with the insulation of steam

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1 locomotive boilers and other things where asbestos was
 2 used in the railroads.
 3 Q So in your opinion it would take additional
 4 information beyond what might be gleaned from this one
 5 article contained in the September 1935 National
 6 Safety News for the knowledge of the company to rise
 7 to the level where you believe that their behavior
 8 would be substantially certain to cause serious injury
 9 or death to their employees?
 10 MR. WATERS: Well, wait a minute. That's --
 11 I mean, you didn't ask about whether they had
 12 knowledge.
 13 MR. COTTEN: I'm just asking --
 14 MR. WATERS: I know, but the question --
 15 MR. COTTEN: I'm asking him --
 16 THE REPORTER: One at a time, please.
 17 MR. WATERS: Right. Can you read the
 18 question back, please.
 19 (Whereupon, the record was read by the
 20 reporter.)
 21 MR. WATERS: Okay. I think it's an

1 incomplete hypothetical in the sense that you're not
 2 giving him any indication what the misconduct is.
 3 You're talking solely about knowledge, and
 4 knowledge in and of itself without conduct or reaction
 5 to the knowledge can't be substantially certain to do
 6 anything.
 7 I find the question confusing and vague as
 8 well.
 9 Q All right. Would you answer the question,
 10 please.
 11 A Well, my problem with it is that -- with the
 12 question is that it's an incomplete picture of what
 13 the company might have done, whatever the company is.
 14 A company has knowledge, but the other side
 15 or the other part of the story, if there is some kind
 16 of a foreseeable harm to an employee, I would need to
 17 know a little bit more about what that employee was
 18 doing with asbestos in order to make any kind of a
 19 conclusion out of it.
 20 Q All right. Thank you.
 21 Would you agree with me -- and I'm just

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1 going to go over a little bit about the nature of this
 2 publication, National Safety News -- that with respect
 3 to the September 1935 example, that this publication
 4 has 13 separate topics for the contents of September
 5 1935?
 6 MR. WATERS: He'll need to look at it.
 7 A It looks like about 13, yes.
 8 Q All right, sir. And about 12 different
 9 regular departments that have information that's
 10 contained in that particular issue?
 11 A Right. They seem to be regular features,
 12 short features also carried by the National Safety
 13 News at that time.
 14 Q And would you also agree that it looks like
 15 this particular publication has at least 80 pages
 16 indicated according to the table of contents?
 17 A That so appears, yes.
 18 Q One of the other documents that I was
 19 provided with by Mr. Waters was the National Safety
 20 Council transactions of 1966.
 21 And is this a document that you're familiar

1 with?
 2 A I'd need to look at it a little bit more.
 3 What do you want to ask me about it?
 4 Q I want to ask you about the -- what that
 5 document shows with respect to the membership of
 6 different companies, persons and entities in the
 7 National Safety Council.
 8 A Okay. As far as that goes I can answer
 9 those kinds of questions now just from, you know, what
 10 the document itself says.
 11 Q Okay. If you would, then, would you read to
 12 me what it shows who the officers in the 19 -- for
 13 1966 and 1967 were with the National Safety Council
 14 indicating the person and the entity involved.
 15 MR. WATERS: Okay. And just to be clear --
 16 and I think we're on the same page -- you're asking
 17 about the general officers at the front of the deal --
 18 at the front of the document as opposed to the ones
 19 that are section specific, the chemical section and
 20 the other sections inside?
 21 MR. COTTEN: At this point, that's correct.

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1 MR. WATERS: Okay. Do you want him to read
2 them all off?

3 MR. COTTEN: I want him to read them all
4 off.

5 A All right. The --

6 MR. WATERS: The individuals' names or their
7 employers?

8 MR. COTTEN: He can --

9 MR. WATERS: Anything to speed this up.

10 Q Yeah. To speed it up, where it's an
11 employer, a company or an entity is indicated just
12 name that. If it's just an individual you can name
13 the individual.

14 A Okay. The chairman of the board of
15 directors is an official, an executive from
16 International Harvester Company here.

17 MR. WATERS: Barry, I don't think he needs
18 or wants the title.

19 Q You can just say International Harvester, if
20 you will. We'll shorten it in that fashion.

21 A Okay. The next official is just employed by

1 the National Safety Council.

2 The next person's National 4-H Service
3 Committee, Incorporated. Next is City Products
4 Corporation in Chicago. Next is Delaware Trust
5 Company. Next is General Motors. Next is
6 International Union of Operating Engineers.

7 Next individual has no affiliation listed.

8 Then someone from the Fruehauf Corporation and then
9 someone from Drake University, CBS Television Network,
10 Gar Wood Industries, Christian Science Monitor,
11 Equitable Life Insurance -- Life Assurance Society,
12 Detroit Institute of Technology, Southern Bell
13 Telephone and Telegraph, a lawyer from Nashville,
14 Illinois State Legislator, Boys' Clubs of America.

15 The last three below that are just National
16 Safety Council employees. I'll skip those --

17 Q That would be fine.

18 A -- since you haven't highlighted those
19 people.

20 Then there's New York Central System. That
21 concludes this first list called officers 1966 to

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1 '67.

2 Then there's a group called members. Union
3 Pacific, National Gypsum, Beech Aircraft, Celanese
4 Corporation, Southern Railway System, Automotive --
5 Automobile Carriers, Inc., Philip Morris, The
6 Travelers Insurance Company, Goodyear Tire & Rubber,
7 ABEX Corporation, duPont, Crane Company, Brown
8 Brothers Harriman and Company, Continental Insurance,
9 Deere & Company, AT&T, Avco, Kimberly-Clark, West
10 Point-Pepperell or Pepperell, Inc., Phillips
11 Petroleum, Transport Communication Employees Union,
12 Bethlehem Steel, National Lead, Union Carbide,
13 International Harvester, Procter & Gamble, National
14 Cash Register, New York Central, General Electric,
15 American Federation of Labor and Congress of
16 Industrial Organizations, General Motors, Melville
17 Shoe, Allis-Chalmers Manufacturing Company,
18 International Nickel Company, Chrysler, Armstrong
19 Cork, Goldinan, Sachs & Company, Delaware & Hudson
20 Railroad, Coca-Cola, U.S. Steel, Humble Oil.

21 And then there's another group called

1 members. Iowa Farm Bureau, Safety Coordinator of
2 Merck & Company, American Mutual Liability Insurance
3 Company, AT&T, Alterman Transport Lines, Metropolitan
4 New Orleans Safety Council, Detroit Institute of
5 Technology, Bethlehem Steel, Rochester Telephone
6 Corporation, Allis-Chalmers Manufacturing Company,
7 Florida State University, Monsanto, U.S. Department of
8 Labor, Equitable Life Insurance -- Life Assurance
9 Society of the United States -- I keep tripping over
10 that one -- Industrial Medical Association.

11 Then there's some insurance companies and
12 public relations outfits you haven't highlighted.

13 National Association of Manufacturers,
14 University of North Carolina, Christian Science
15 Monitor, Citizens & Southern National Bank of South
16 Carolina, Automobile Carriers, Inc., Kodak Park Works,
17 Eastman Kodak, The Anshe Emet Synagogue in Chicago,
18 United Brotherhood of Carpenters and Joiners, American
19 Federation of Labor and Congress of Industrial
20 Organizations, National Association of Broadcasters,
21 Interstate Commerce Commission, St. Joseph Light &

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1 Power.

2 This goes on and on. Do you want me to keep
3 reading all this stuff?

4 Q If you would.

5 A General Motors, Drake University, Auto
6 Industries Highway Safety Committee, Louisville &
7 Nashville Railroad, General Electric, General Motors,
8 American Farm Bureau Federation, Deere & Company,
9 Liberty Mutual, American Insurance Association,
10 American Medical Association, Emile duPont from E. I.
11 duPont de Nemours & Company.

12 And there's various noncorporate officials,
13 Reader's Digest --

14 MR. WATERS: Can we do something to
15 stipulate so he doesn't have to read the rest of this
16 thing?

17 Q Let me -- let's stop right here, and then
18 I'll see if we need to pick back up with it.

19 Dr. Castleman, of those entities and
20 individuals, organizations, corporations that you have
21 thus far read off for the jury in this case from that

1 publication, which of those do you believe to have
2 conspired to keep the knowledge about the hazards of
3 asbestos from the workers who might be working -- who
4 might have worked with asbestos products?

5 MR. WATERS: Are you asking about concert
6 and conspiracy between those members or -- when you
7 say who conspired as a group or --

8 MR. COTTEN: I want to know which of these
9 organizations and entities he believes conspired to
10 either withhold information concerning the hazards of
11 asbestos or attempted to change the scientific or
12 medical literature with regard to the hazards of
13 asbestos.

14 MR. WATERS: Okay. And just for
15 clarification, when you use the term conspired, you
16 don't necessarily mean in concert with other
17 individuals or parties. It could be internal to that
18 corporation?

19 MR. COTTEN: That's -- that would be
20 correct.

21 A Well, certainly we could start with ABEX

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1 Corporation or American Brake Shoe I saw here
2 somewhere.

3 They were one of the companies whose
4 executives gathered together at the offices of the
5 Johns-Manville Corporation in 1948 and decided to
6 instruct Dr. Vorwald to delete all references to
7 cancer and tumors in the article he was publishing
8 which finally did get published in 1951. This is
9 discussed at some length in my book.

10 It's a little hard to answer with respect to
11 conspiracy. I'm not too sure what -- I mean, that was
12 a conspiracy involving a bunch of companies that sat
13 around the table and decided to rig the medical
14 literature. Conspiracies of such a frank kind are not
15 so many.

16 Q All right.

17 A But there are certainly companies that have
18 shown a reckless disregard for the health of workers
19 exposed to asbestos and asbestos products among the
20 companies whose names I've read off.

21 Q Do you believe that the companies that are

1 listed in your book with respect to conspiracy to
2 withhold information concerning their knowledge of
3 hazards of asbestos and to affect the medical and
4 scientific literature was successful?

5 MR. WATERS: I'm sorry. Does he believe
6 that the conspiracy was successful?

7 MR. COTTEN: Yes.

8 MR. WATERS: Sorry.

9 A Well, I suppose I would have to say overall
10 the suppression of this knowledge was successful for
11 an extraordinary long -- extraordinarily long period
12 of time.

13 Here you have products that probably
14 shouldn't even have been made after the 1930s,
15 insulation products containing asbestos, and you have
16 to -- these products not only continued to be made but
17 continued to be used widely by workers in all manner
18 of heavy industry, workers in -- workers in shipyards,
19 workers in chemical plants, all refineries, power
20 plants and other kinds of construction activities, and
21 this went on for generations after the 1930s, and

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1 these workers were obviously not aware that their
2 lives were in any danger from breathing asbestos
3 dust. They weren't warned about it by their
4 employers.

5 The companies that made the products took as
6 long as they possibly could legally and business-
7 decision-wise speaking to delay and minimize the
8 warnings that were provided to workers about these
9 risks.

10 Employers, big employers like duPont and
11 Bethlehem Steel, clearly were aware of the hazards of
12 asbestos before the time that action was taken,
13 serious action was taken to protect workers from these
14 kinds of risks.

15 So in that sense I suppose there was
16 certainly some success resulting from all of the
17 outright suppression of knowledge and just hardhearted
18 business conduct of looking the other way on health
19 and safety matters over fears of compensation claims,
20 labor unrest and the usual other types of business
21 considerations.

1 MR. COTTEN: Object to the nonresponsive
2 aspects of your answer.

3 Q To the degree that these members of the
4 National Safety Council that you just read off were
5 members during the same time as duPont, they would
6 have had like access to the information from these
7 National Safety Council publications that duPont had?

8 MR. WATERS: Objection. Assumes facts not
9 in evidence. Calls for speculation.

10 A I'm not even sure I can agree with that
11 because if you provide this kind of a document to the
12 Carpenters Union in 1966, I'm quite sure that the
13 Carpenters Union didn't have an industrial hygienist
14 or a medical director or somebody like that that could
15 read it and understand how to pronounce mesothelioma
16 and so on and make some kind of sense about how this
17 might affect their people as a big corporation with
18 medical directors and toxicology laboratories and so
19 on would receiving the same information.

20 MR. COTTEN: Objection. Nonresponsive.

21 Q I really was just asking you if they would

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1 have had access to the information. Whether they
2 would appreciate the information is really a different
3 question.

4 A Well, the word access is ambiguous, I think.

5 MR. WATERS: That, and I think it's a little
6 bit confusing because the question seems to assume
7 that these people were all members for the same length
8 of time and duration of time that duPont was.

9 MR. COTTEN: It really doesn't assume that.
10 I asked to the extent that they were.

11 Q Okay. At the same time that this, I think
12 you've characterized it as, industrial suppression of
13 information concerning the hazards of asbestos was
14 going on, you also claim that the literature and the
15 libraries and medical information was available about
16 the conclusions of the hazards of asbestos and that
17 that was known, don't you, sir?

18 A Right. There was a growing body of medical
19 knowledge about the hazards of asbestos which was
20 accumulating in medical libraries and was available to
21 certain parties because they made use of this kind of

1 information in the course of running their businesses.

2 Q What -- why didn't the United States
3 Government take strong action based upon this
4 information before they actually did start taking
5 action?

6 MR. WATERS: Objection. Calls for
7 speculation.

8 Answer, if you can.

9 A I believe that the main reason for that is
10 that there was no constitutional authority granted to
11 the federal government to protect workers from health
12 and safety hazards until the enactment of the
13 Occupational Safety and Health Act of 1970, and then
14 it took several years for that to really be put into
15 some kind of place where you'd actually have
16 inspections and some kind of enforcement of whatever
17 standards there were.

18 Q And that didn't occur until the 1970s?

19 A No.

20 Q And -- but in the 1970s action was taken to
21 create those governmental entities to begin that task;

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1 is that right?

2 MR. WATERS: Well, I mean, he already
3 testified that the act was passed in 1970. I mean, so
4 I think the question is repetitive.

5 A Yes. I mean the OSHA, the Occupational
6 Safety and Health Administration, NIOSH, the National
7 Institute for Occupational Safety and Health, were
8 created by that act of Congress in 1970 right around
9 the same time the Environmental Protection Agency was
10 created, and so you -- and then a few years later came
11 the Consumer Products Safety Commission created under
12 the Consumer Products Safety Act.

13 So you started to see a real commitment at
14 least on the part of Congress to start doing something
15 about these kinds of problems which previously had not
16 been addressed by the federal government in a
17 substantial way.

18 Q Do you know any -- of any governmental
19 impediment to the creation of those type of entities
20 for the 1950s?

21 MR. WATERS: Objection. It calls for a

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1 (Whereupon, a brief recess was taken --
2 11:48 a.m.)

3 (Whereupon, after recess -- 12:02 p.m.)

4 THE VIDEOGRAPHER: January 30th, 1997 at
5 approximately 12:02 p.m. we're back on the record.

6 This is the beginning of tape number five.

7 BY MR. COTTEN:

8 Q Dr. Castleman, do you know when the State of
9 North Carolina took governmental action with respect
10 to protection of workers in its state against the
11 dangers of asbestos?

12 A Well, I know that the State of North
13 Carolina was involved in bringing in the Public Health
14 Service to do its survey published in 1938, and I
15 believe that earlier than that, I think in 1935, the
16 state started a program of physical examinations of
17 workers in the asbestos textile plants.

18 Q Could you explain to the jury what an
19 asbestos textile plant is as opposed to a textile
20 plant that is nonasbestos?

21 A Well, the asbestos is a mineral fiber, and

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1 participated in the Public Health Service coming in
2 and evaluating workers at asbestos textile plants in
3 that state?

4 A In the 1930s, yes.

5 Q Do you know if the State of North Carolina
6 received the information that was developed by the
7 Public Health Service in those 1930s efforts?

8 A I'm sure they did. Dr. Esam was listed as
9 one of the authors of the Public Health Service
10 report, and he was one of the state officials who was
11 involved in bringing the Public Health Service in.

12 Q With respect to the -- again, the hazards
13 of asbestos, why in the '50s and '60s didn't the
14 medical community within the United States take strong
15 action to curb the dangers of the asbestos contact of
16 workers?

17 A I've wondered about that too, and it seems
18 to me that what happened is you take a look at what
19 the medical community consisted of.

20 The people in the medical community who were
21 publishing reports were isolated people like Dr.

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1 legal conclusion of some sort.

2 A I know that there were presidential
3 conferences about Occupational Safety and Health
4 starting in the late 1940s, and there were -- there
5 was a long time -- longstanding struggle to create
6 worker protection of the kind that finally came
7 through the Occupational Safety and Health Act.

8 It's politics basically. You're talking
9 about big business interests that really would have
10 preferred to not have the government come into their
11 places of business and tell them that they had to
12 clean up this, and they had to clean up that, and they
13 had to define this, and they had to inform workers
14 about that.

15 I think it's pretty obvious why we didn't
16 have legislation like that before 1970.

17 MR. COTTEN: All right. Let's take a break.

18 THE VIDEOGRAPHER: Excuse me. 11:48 a.m.

19 This is the end of tape number three. We're now going
20 to tape number four.

21 (Whereupon, discussion off the record.)

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1 it can be combined with cotton and was in many cases
2 done -- well, products were made from combined
3 asbestos and cotton mostly in asbestos material, and
4 it would make a cloth that could be used for
5 industrial gloves and things of that kind, aprons and
6 so forth worn in industries as protective equipment
7 against splashing metals and aluminum plants and
8 things like that and hot surfaces and things.

9 Q Do you, sir, know what products were made
10 at the Kinston, North Carolina facility, at the duPont
11 facility?

12 A No, not specifically. I think it was in
13 the -- the only information that I have is really that
14 it -- which division of the duPont Company it was in,
15 the textile fibers department, but -- and it appears
16 from Dr. Ford's letter that they were manufacturing
17 dacron fiber there, but whatever else they made I
18 couldn't say.

19 Q All right, sir. It's your -- following up
20 on what you said about the Public Health Service, it's
21 your information that the State of North Carolina

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1 Angrist who, in his pathology work, saw an occasional
2 case of lung cancer and asbestosis and published it in
3 the pathology journal.

4 There might have been others who, like Dr.
5 Isselbacher put together review articles around a
6 single case report that they were adding.

7 But the people who were in a position --
8 the doctors who were in a position to actually
9 influence industrial practice were the company
10 doctors, doctors like Dr. D'Alonzo who were actually
11 in a position of some authority within the industries
12 where these hazards existed.

13 And these folks were a different -- well,
14 they were the kind of people who were -- who saw
15 themselves, it seems to me, as part of management and
16 who were keenly aware of the concerns of management.
17 They were people who understood that they served at
18 the pleasure of management.

19 And I think even more, they were a somewhat
20 self-select group in that they were people who
21 realized they might be called upon to testify against

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1 workers who were bringing compensation claims.
 2 They might be leaned on by management to be
 3 less than completely forthright with workers about
 4 informing them about occupational hazards that they
 5 were facing on the job.
 6 And so for a variety of reasons, that plus
 7 the fact that there was no place for people to work
 8 who were independent experts in industrial medicine.
 9 There were a few jobs in governmental
 10 agencies scattered around the country -- and I mean a
 11 few -- because there was no federal presence in the
 12 field of occupational health.
 13 And so the jobs that were available for
 14 people who graduated in this field who had special
 15 training or interest in industrial medicine and
 16 hygiene, they were all in the industry.
 17 And so -- and this is reflected in the
 18 industrial dominance, in the publications of the
 19 field. Textbooks written by duPont authors, for
 20 example, is a good example of the kind of hegemony,
 21 the kind of dominance that the company doctors had in

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1 the field of industrial medicine, a kind of
 2 unchallenged dominance which existed in a time before
 3 there was any other kinds of employment for people who
 4 were interested in industrial medicine outside of
 5 industry.
 6 This changed in the 1970s or started to
 7 change in the 1970s with their creation of OSHA,
 8 NIOSH, the Environmental Protection Agency and other
 9 federal agencies where people could actually get a job
 10 and be a professional in this field and concentrate on
 11 informing workers and citizens of -- about
 12 occupational and environmental health hazards which
 13 they had previously been unaware of.
 14 So I'm sorry, it's kind of a long answer,
 15 but that's my explanation for how come the medical
 16 community, if you want to refer to such an amorphous
 17 entity as that, didn't do more sooner.
 18 MR. COTTEN: To the degree and extent that
 19 your answer was nonresponsive, I'll object to that.
 20 Q Do you, sir, know the date when the first
 21 asbestos-related claim was made at any duPont

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1 facility?
 2 A No, I don't. I mean, obviously, duPont was
 3 aware of a death of an individual from mesothelioma in
 4 1963.
 5 Whether a claim was made by the worker in
 6 that case, whether the worker was ever informed or the
 7 worker's family was ever informed by duPont that
 8 mesothelioma is a disease associated with asbestos as
 9 something that was well recognized by the mid '60s, I
 10 can't say.
 11 MR. COTTEN: Let me object to the
 12 nonresponsiveness of your answer.
 13 Q Do you know the date when the first
 14 asbestos-related adenocarcinoma lung cancer case or
 15 claim was made at the duPont Company?
 16 A No.
 17 Q Do you -- what's your explanation for the
 18 inaction of the unions with respect to the dangers of
 19 asbestos?
 20 A I think the unions simply didn't have the
 21 technical sophistication to understand problems of

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1 industrial medicine and hygiene.
 2 They didn't have within their own
 3 organizations full-time paid professionals in these
 4 fields.
 5 The unions were slow to learn about these
 6 things despite their token presence at organizations
 7 like the National Safety Council at least by the
 8 1960s. I don't know about earlier years.
 9 Q When did the -- if you know, the United
 10 States Department of Health, Education and Welfare
 11 come into existence?
 12 A I think it was in the early '50s, but I'm
 13 not sure. It could have been earlier than that.
 14 Q Did the United States Department of Health,
 15 Education and Welfare impose or recommend any
 16 restrictions on the use of asbestos insulation
 17 products?
 18 MR. WATERS: At any time?
 19 Q At any time.
 20 A Well, they put out a notice in the late
 21 1970s about asbestos hazards from previous exposure in

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1 shipyards, especially during World War II.
 2 Nothing else comes to mind, although within
 3 that department of the government there may have been
 4 subdepartments like the Public Health Service which
 5 did occasionally publish something.
 6 Q Do you know whether Lester Adams, the
 7 plaintiff's decedent in this case, ever worked in the
 8 shipyards?
 9 A I don't know.
 10 Q Would that be significant to you if he
 11 had?
 12 MR. WATERS: From a medical standpoint or
 13 with respect to his opinions?
 14 MR. COTTEN: With respect to his opinions.
 15 A Well, I'd need to know a little bit more
 16 about what kind of work he did and when. I mean, for
 17 starters, I'd need to know more about that, a lot
 18 more.
 19 And I still don't know whether that really
 20 would have much to do with, you know, any testimony
 21 that I could offer in this case given the nature of my

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1 testimony being a nonmedical but more public health
 2 and state of the art type of testimony.
 3 Q When did you write the article, How the
 4 Asbestos Industry Avoids its Victims?
 5 A I think this was written back in the -- back
 6 in the late '70s. I don't think I titled the
 7 article. I just sent it in, and I was a little
 8 surprised at the title that they gave it.
 9 Q At that time in that article you claim that
 10 there was a coverup of hazards to asbestos and the
 11 asbestos industry's customers; isn't that correct?
 12 A Quite possibly, yes. I don't recall now the
 13 exact text.
 14 Q And I'll show this to you so that you'll
 15 have the benefit of it, sir (indicating).
 16 A Thank you.
 17 Q In an article that you wrote in the late
 18 '70s you indicate where it's highlighted and
 19 underlined -- if you don't mind, if you'd read that
 20 first portion that's highlighted and underlined.
 21 A And so the coverup of hazards of the

Page 531 1 industry's customers compounded the coverup of the 2 hazards to the industry's own employees and the sales 3 of asbestos skyrocketed. 4 Q All right, sir. 5 MR. WATERS: Can I see that? 6 MR. COTTEN: Yes (indicating). 7 Q You were indicating that -- let me withdraw 8 that. 9 Do you understand that the duPont Company 10 was a customer of the asbestos industry to the extent 11 that it purchased asbestos insulation? 12 A Yes, but I also consider that they were an 13 asbestos company to the extent that they used asbestos 14 as a raw material in the manufacture of products that 15 they sold. 16 MR. WATERS: Let me just lodge an objection 17 to cross-examining the witness on an article when 18 apparently you've only presented him with one page of 19 it. 20 MR. COTTEN: Would you like me to get the 21 rest of the article?	Page 532 1 MR. WATERS: Do you have it? 2 MR. COTTEN: Yes. 3 MR. WATERS: Yeah, sure. 4 MR. COTTEN: Let me object to the 5 nonresponsive portion of your answer. 6 Q Dr. Castleman, you know don't you, sir, that 7 there were -- that the duPont Kinston, North Carolina 8 plant did not manufacture any products that contained 9 asbestos? 10 A That's my understanding. I mean, duPont was 11 not usually involved in manufacturing asbestos- 12 containing products, but asbestos was used in some 13 products made by the company at some of its locations. 14 MR. COTTEN: Here you are, Mr. Waters 15 (indicating). 16 MR. WATERS: Thanks. 17 Q In that same article in the 197 -- late 18 1970s, sir, you also indicated that the full extent of 19 the dangers of asbestos remained unstudied and unknown 20 for decades, didn't you? 21 That would be the second highlighted and
Page 533 1 underlined portion. 2 A Yes. 3 Q And then with this article that you wrote in 4 19 -- in the late 1970s you also state -- and I'll ask 5 you if I read this correctly -- as a result only now 6 do we know that all the people who worked at shipyards 7 and construction sites and asbestos-fabricating 8 plants, even office workers, run the risk of 9 contracting asbestos cancer. 10 Isn't that what you said in your article in 11 the late 1970s? 12 A Yeah. The emphasis is on the word "all." 13 Q All right. 14 MR. WATERS: In fact, that's in italics. 15 A Yes, that word is in italics as it appears 16 in the article. 17 At that time studies were coming out showing 18 that even draftsmen working at shipyards doing 19 engineering drawings had abnormal chest X-rays 20 consistent with asbestosis. 21 Q Late 1970s?	Page 534 1 A Right. 2 Q All right, sir. 3 A Well, I don't recall exactly when the 4 studies came out. It was sometime in the 1970s I 5 think. 6 Let's take a break in a couple of minutes. 7 Q Yes, sir, a couple more minutes. 8 To the extent that this conspiracy that you 9 talked about -- and you name the companies that you 10 believe were involved in the conspiracy in your book, 11 Asbestos: Medical and Legal Aspects -- to the extent 12 that this conspiracy manipulated scientific and 13 medical information and withheld it, would that be a 14 source of confusion to either individuals or even 15 professionals in the fields who would read information 16 that was contrary to one another on the subject of 17 asbestos? 18 A Yes. And by the way, I'm not sure I want to 19 simply let pass your assertion that I name the 20 companies that were involved in the conspiracy in my 21 book.
Page 535 1 But it is certainly true that the 2 suppression of knowledge and the distortion of 3 scientific knowledge had the effect of confusing 4 people, especially the people who didn't have 5 technical sophistication in the field of industrial 6 medicine and hygiene. 7 Q The companies in your book that you discuss 8 on the section of company knowledge where you 9 specifically talk about each one of those companies 10 include and are limited to the Raybestos-Manhattan, 11 Inc., Owens-Illinois, Armstrong Cork, Fibreboard 12 Corporation, Owens-Corning Fiberglas Corporation, 13 Unarco, Pittsburgh-Corning Corporation, Eagle-Picher 14 Industries, United States Gypsum Company, Southern 15 Textile (H. K. Porter) Corporation, Keene Corporation, 16 Union Carbide Corporation, Georgia-Pacific 17 Corporation, W.R. Grace & Company, GAF Corporation, 18 Westinghouse Electric Corporation, Companies Mining 19 Asbestos in Quebec, Canada, Philip Carey Manufacturing 20 Company, Asbestos Corporation, Limited, Johns-Manville 21 Corporation, National Gypsum Company, Turner & Newall,	Page 536 1 Limited, CSR, Railroad Companies and Metropolitan Life 2 Insurance Company; is that right? 3 A Those are the companies that are listed in 4 the Corporate Knowledge chapter of the book, but it 5 isn't stated in that chapter anywhere that those 6 companies all engaged in a conspiracy. 7 Q Okay. Those are the companies, though, that 8 you specifically refer to concerning company knowledge 9 regarding the hazards of asbestos; is that right? 10 A In Chapter 9, yes. Other companies are 11 discussed elsewhere in the book in addition to those. 12 Q Those are the ones, though, that a specific 13 chapter is devoted to in your book? 14 A Well, subchapters yes. 15 I think we should probably take a break at 16 this point. 17 Q That would be fine. Let's do that. 18 THE VIDEOGRAPHER: We're going to go off the 19 record at 12:24 p.m. 20 MR. WATERS: For the record, Sarah Lee, who 21 is represented here today, was not represented at the

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1 previous session of the deposition, but I think we
2 have agreed that I'm going to be able to utilize the
3 previous portion of the deposition against Sarah Lee
4 subject to any and all objections as to form or
responsiveness that were made at the time of the
deposition even though you weren't there.

7 MR. BEVEL: Regardless of by whom they were
8 made?

9 MR. WATERS: Correct. And subject to
10 whatever additional nonform, nonresponsiveness
11 objection Sarah Lee may wish to make at the time of
12 trial and/or before trial. And what else?

13 MR. BEVEL: With the understanding that
14 you're not intending to offer any questions or answers
15 the doctor gives based upon --

16 MR. WATERS: That pertain to --

17 MR. BEVEL: Pertain to an individual company
18 that's a defendant in the case, either Armco, duPont
19 or Harbison-Walker, that were that opinion testimony
20 elicited in that deposition and for that matter in
21 that deposition that pertain specifically to another

1 defendant.

2 MR. WATERS: Well, I'm not going to make any
3 agreements about this deposition. But fair enough.
4 Are we in agreement then?

5 MR. BEVEL: And vice versa. You said that
6 you could use it against me, but likewise, I could use
7 anything that is in that examination against you.

8 MR. WATERS: Except the portions pertaining
9 to Harbison-Walker, Armco and duPont.

10 MR. BEVEL: Right.

11 MR. WATERS: Fair enough. We have a
12 consensus.

13 (Whereupon, a brief recess was taken --
14 12:24 p.m.)

15 (Whereupon, after recess -- 1:28 p.m.)

16 THE VIDEOGRAPHER: 1:28 p.m. We're back on
17 the record. This is the beginning of tape number
18 four -- or middle of tape number four.

19 BY MR. COTTEN:

20 Q Dr. Castleman, as a part of the promotion of
21 your book, Asbestos: Medical and Legal Aspects,

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1 Fourth Edition, are you aware that certain
2 advertisements in the form of advertising brochures
3 have been distributed throughout the country by Aspen
4 Law and Business?

5 A Yes, I'm aware of the fact that my publisher
6 advertised the publication of the Fourth Edition of
7 the book.

8 Q According to your agreement with that
9 publisher, do you have the right of approval with
10 respect to what is said in that advertisement
11 concerning your book?

12 A No.

13 Q Did Aspen Publisher provide you with an
14 opportunity to see the proofs of this advertisement
15 before they sent it out?

16 A I don't think so. They asked me about some
17 specific things, and I told them I wrote down some
18 points, but I don't recall whether they sent the final
19 version by me or not or whether they just went ahead
20 and put it out.

21 Q This Asbestos: Medical and Legal Aspects,

1 Fourth Edition, was actually published and made
2 available for purchase at what time this year -- last
3 year, I mean?

4 A Sometime in the middle of the year, I think
5 in May.

6 Q May of 1996?

7 A I think that's when it came out. Maybe
8 June.

9 Q Dr. Castleman, I have a copy of your book
10 that I purchased. I noticed in this -- and I'll give
11 you and Mr. Waters an opportunity to look at my copies
12 of the advertisement that I was just referring to, but
13 according to this advertisement there's a
14 representation made that this book, the Fourth Edition
15 that was available for purchase in May of 1996, was
16 completely up to date.

17 Were you aware that they made that statement
18 concerning the book?

19 A I don't recall whether -- that didn't make
20 any impression on me if they ran that by me that they
21 were going to say that.

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1 Q Did you -- have you prepared any supplements
2 with respect to Asbestos: Medical and Legal Aspects?

3 A No.

4 Q Are you working on any new editions?

5 A No.

6 Q Were you aware that the publisher in its
7 advertisement says that purchasers such as myself will
8 automatically receive risk-free supplements and/or new
9 editions that add to or update Asbestos: Medical and
10 Legal Aspects?

11 A I recall seeing some page about supplements
12 in the book itself which basically struck me as an
13 advertisement from the publisher, as well as at least
14 an implication that there was going to be something
15 published that they hadn't discussed yet with me.

16 Q Do you know, sir, who the advertisement of
17 your publisher, what audience these advertisements
18 were directed to?

19 A No, not really. I mean, I can guess and so
20 can you, but I don't really know who all they mailed
21 those things to.

1 Q They haven't told you that they directed
2 this to the legal community?

3 A They haven't told me that, but I would
4 assume that they would have directed it at the legal
5 community and possibly others as well.

6 Q Did you have any -- did you write any of the
7 information that's contained in the advertisement?

8 A I may have.

9 MR. WATERS: I think he needs to look at it.

10 Q I'll be glad to hand it to him.

11 (Indicating).

12 A Most of this looks like the old brochure
13 language that they used in the previous edition. I
14 don't recall.

15 I mean, I had some discussions with them,
16 and I may have written a few things down and said
17 well, all right. You might want to say this or you
18 might want to add that.

19 Q Is it your belief that your book, Asbestos:
20 Medical and Legal Aspects, would provide a lawyer/
21 purchaser with a case building historical and legal

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1 information saving that person thousands of hours of
2 research and analysis?

3 A Well, the book has, I think, been helpful to
4 people involved in litigation on both sides by
5 cataloging and discussing the evidence involved on the
6 basis of which the various parties can come to
7 reasonable agreements about how to resolve some of
8 these cases.

9 (Whereupon, Castleman Deposition Exhibit
10 Numbers duPont 2 through 4 were marked for
11 identification.)

12 Q With respect to the advertisement which I've
13 marked as duPont 2 -- and I'll give you an opportunity
14 to look at this -- on the topic of cancer it contains
15 the statement, describes confidential studies never
16 before published.

17 Is that what this says?

18 MR. WATERS: I'm going to ask you to give it
19 to him. He can't read from that distance.

20 MR. COTTEN: I thought he might know.

21 MR. WATERS: Maybe he can. Oh.

1 MR. COTTEN: (indicating).

2 A That looks like language probably from the
3 earlier brochures. There are certainly studies that
4 -- there are certainly plenty of studies in the book
5 that are discussed which were never published at the
6 time they were done.

7 Q And, sir, again, this advertisement, duPont
8 Number 2, names the names of a number of corporations
9 but does not, except for my exhibit number, contain
10 the name duPont Company.

11 A That's right. They basically are listing
12 the companies that are discussed in Chapter 9, most if
13 not all.

14 Q Going back to the article -- and I'll
15 retrieve it if I need to for your purposes or for your
16 purposes, Doctor -- on how the asbestos industry
17 avoids its victims, did you cite a statement from
18 A. J. Lanza that was published in 1935 that says the
19 experience so far does not warrant or attempt to
20 define a standard for dustiness for asbestos dust?

21 A I recall Lanza having a statement like that

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1 in his 1935 publication. I may have quoted it.

2 Q And showing that to you, sir, do you see
3 where it was quoted in your article (indicating)?

4 A Yes.

5 Q And finally, does the article, at the
6 bottom of page 35 written by you in the late 1970s,
7 indicate that Dr. Lanza's publication was fiction and
8 science was but one way in which private insurance
9 carriers in the United States worked with the asbestos
10 industry to keep the hazards of asbestos a secret?

11 A Right. And just to give the context, you're
12 skipping something here between the standard of
13 dustiness comment and other stuff that I'm telling
14 here. And what I'm saying is that there was critical
15 editing that Dr. Lanza did at the request of the
16 lawyers for Johns-Manville to weaken the central --
17 the number one conclusion of the study.

18 And then I do make reference to that as
19 publishing fiction as science and critiquing
20 Metropolitan Life for participating in such a thing.

21 Q All right. And thank you for putting it in

1 context.

2 Have you referred to those types of
3 behaviors as being a part of a conspiracy of silence?

4 A Yes, on occasion I have.

5 Q Have you described the publication of Dr.
6 Irving Selikoff in 1964 with respect to the dangers of
7 asbestos that includes the work trade of insulators as
8 a landmark paper?

9 A Yes, I suppose I have.

10 Q You've talked a number of times, sir, about
11 your having provided your services for the Chase
12 Manhattan Bank.

13 That was in an action in which the Chase
14 Manhattan Bank was a plaintiff; is that correct?

15 A Yes.

16 Q Chase Manhattan Bank in that instance was a
17 premises owner that had asbestos insulation products
18 on its premises; is that right?

19 A Right. That's right.

20 Q Do you have a belief that the Chase
21 Manhattan Bank, through any exposures that occurred on

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1 its premises to its employees, was intentionally
2 exposing its employees to the hazards of asbestos
3 while knowing it to be substantially certain that
4 those employees would be -- would suffer serious
5 injury or death?

6 A No. The Chase Manhattan Bank on the
7 contrary has -- had voluntarily decided to embark on
8 an \$85 million asbestos abatement program in its world
9 headquarters building long before the lawsuit came to
10 trial and had in fact spent about half that sum by the
11 time that the trial took place.

12 Q What year was the lawsuit brought?

13 A I don't know when the trial -- when the
14 claim was brought. I think it was 1989, but I'm not
15 sure.

16 Q And what year did they start their asbestos
17 abatement program?

18 A I don't know.

19 Q What is your fee arrangement with the
20 plaintiff in this case?

21 A My standard arrangement --

1 MR. WATERS: Let me just object that he
2 doesn't have a fee arrangement with the plaintiff. He
3 has a fee arrangement with me.

4 Q What is your fee arrangement with Mr.
5 Waters, who represents the plaintiff in this case?

6 A My standard charges are \$300 per hour for
7 trial and deposition testimony.

8 Q What about preparation for trial or
9 depositions?

10 A That's billed at the same rate.

11 Q To this point in time and not counting
12 today's deposition, do you know how many hours you
13 have invested in all aspects of the services that
14 you're rendering at Mr. Waters' request in this Lester
15 Adams case?

16 A You mean this year, not back in November?
17 Because I can't remember what the bills were for
18 November.

19 Q Why don't you tell me this year and then
20 we'll go back and explore all the rest of it.

21 A Because I think you paid the bill in

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1 November.
 2 Q I think you're wrong.
 3 MR. WATERS: Yeah, he didn't paid the bill.
 4 THE WITNESS: He didn't?
 MR. WATERS: I paid it.
 THE WITNESS: You paid it. All right.
 7 Anyway --
 8 MR. WATERS: I'll be happy to solicit a
 9 contribution, but we haven't talked about it.
 10 A I really haven't tried to sit down and sort
 11 out how many -- exactly how many hours, I haven't
 12 composed a bill for Mr. Waters, but you know, probably
 13 like something like six hours or so is the time. I've
 14 probably spent on this at his expense separate from
 15 the actual deposition time itself.
 16 Q In 1997?
 17 A Right.
 18 Q What about when you first became engaged in
 19 this case?
 20 A I don't think there were any charges until
 21 the deposition itself. I don't think there was any

1 preparation time, but I'd have to go and check.
 2 There might have been, you know, an hour or
 3 two, something like that.
 4 Q And so we could do the math on the number of
 5 hours by -- with respect to your work in 1996 on the
 6 Lester Adams case by determining the length of time of
 7 the depositions itself -- the deposition itself?
 8 A I suppose so, yes. I mean, the bills have
 9 already been composed and sent and, I think, paid. I
 10 just don't recall the amounts involved.
 11 Q In the documents that you brought for us
 12 here today in response to the subpoena that was served
 13 on you, did you bring copies of your bills with
 14 respect to your work on the Lester Adams case?
 15 A I don't have any copies of bills in the
 16 Lester Adams case.
 17 Q All right. You submitted those bills to Mr.
 18 Waters, he paid them, and you haven't created a new
 19 bill?
 20 A Right. When I get a bill paid, I just make
 21 an entry that it was paid and chuck the copy that I

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1 have of the bill I sent.
 2 Q This case is set for trial in April of this
 3 year, April 28th of this year.
 4 Do you have a present intention to testify
 5 live at this trial?
 6 A That's up to Mr. Waters, but I believe I
 7 would be available if he wanted me to testify live.
 8 Q Do you have a minimum fee for depositions?
 9 A Oh, I think I try to, at least, get people
 10 to pay me for half a day, and if they're only going to
 11 take a half a day, I try to get them to commit to that
 so that I can make plans for the other half of the day
 and feel free to walk out at the end of the half day,
 but that doesn't always work.
 14 I mean, there have been cases where, you
 15 know, have been real short depositions and not billed
 16 them for the time it took.
 17 Q All right, sir.
 18 How many times have you testified in 1997
 19 whether by deposition or in trial?
 20 A This is the first time.

1 Q Can you give me the approximate numbers of
 2 times that you have testified whether by deposition or
 3 trial for 1996?
 4 A I think it's about a dozen each, depositions
 5 and trials.
 6 Q So about 24 during the year 1996?
 7 A Right.
 8 Q Were you busier than that in 1995 with
 9 respect to testifying?
 10 A No, I think '95 was even a little bit slower
 11 than '96.
 12 Q Do you know how much money you earned for
 13 testifying, whether by deposition or in trial during
 14 the year 1996, with respect to your consulting and
 15 testifying for lawyers?
 16 A No. I mean, I've got the records, but I
 17 haven't -- you know, I haven't filed taxes or anything
 18 like that on them yet, so I don't know what the totals
 19 would be.
 20 Q Do you know -- do you have -- could you give
 21 me your best approximation?

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1 A It's probably a little over \$100,000 gross
 2 income.
 3 Q Your first article called The Development
 4 of Knowledge About Asbestos Disease --
 5 A Yes.
 6 Q -- was that article commissioned by a
 7 plaintiff's attorney?
 8 A It was requested by a plaintiff's attorney,
 9 yes.
 10 Q And was it paid for by a plaintiff's
 11 attorney?
 12 A Well, he paid most of the bill, not all of
 13 it.
 14 Q And that was back in 1976 or '77?
 15 A Right.
 16 MR. WATERS: Who was the lawyer?
 17 THE WITNESS: Walter Humphrey.
 18 MR. WATERS: I think Walter could certainly
 afford it.
 MR. VOGLER: I think we ought to strike some
 21 of those comments about payment and Mr. Humphrey.

1 Q And then your work with respect to the
 2 knowledge about asbestos disease continued again in
 3 1977 with the assistance of other plaintiffs'
 4 attorneys?
 5 A Yes. What happened was that the -- more
 6 attorneys were getting involved, more cases were being
 7 filed in 1977, and this report that I had prepared was
 8 becoming known, at least to lawyers in Texas, and
 9 eventually to lawyers in other states.
 10 Q Now, at the beginning it's correct, isn't
 11 it, that a plaintiff's attorney told you what he had
 12 to do in his case and explained to you what he had to
 13 prove in his case as a part of your instructions to do
 14 your work?
 15 A Sure. The lawyers would orient me by
 16 telling me basically what the issues were in their
 17 case.
 18 I wasn't a lawyer, I wasn't familiar with
 19 this kind of stuff, and it needed to be explained to
 20 me what basically were they especially interested in
 21 knowing, even though the general task was to develop

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1 the whole picture of the knowledge as it had been
2 published, whatever -- whatever it said.
3 Q And you've been doing this work to a greater
4 or lesser degree each year since 1975 now through the
5 beginning of 1997?
6 A Yes. I mean, it started out as a research
7 job, and what started out as a small research job
8 eventually became a major activity in my life for a
9 period of some years in the late '70s and the subject
10 of my doctoral thesis and the book in the early '80s,
11 and it is also a continuing fascination of mine to try
12 and really understand how this happened, this epidemic
13 of asbestos disease that is unfolding now.
14 MR. COTTEN: Objection to the nonresponsive
15 portion of your answer.
16 Q In the 1980s, 90 to 95 percent of your
17 income was derived from testifying for plaintiffs in
18 their lawsuits; is that correct?
19 A Well, it was derived from testifying in
20 trials, being deposed, doing research, litigation-
21 related activities.

1 It wasn't 90 percent every year, but I'd say
2 over the decade it would have been probably 90 percent
3 or more.
4 Q When were you first contacted or retained in
5 connection with the Adams case?
6 A I don't remember. Probably shortly before
7 last November.
8 Q What was the source of that contact?
9 A I'm sure Mr. Waters would have called me and
10 told me about the case.
11 How else would I have known?
12 Q Have you had any discussion with any other
13 lawyers for the plaintiff or representatives for the
14 plaintiff or other expert witness with respect to this
15 particular lawsuit involving Lester Adams?
16 A No.
17 Q Have you reviewed any information specific
18 to Lester Adams?
19 A I don't think so.
20 Q Reviewed any deposition testimony of any
21 co-workers or any affidavits of co-workers?

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1 A I don't think I have, no.
2 Q Have you reviewed any of the -- any
3 documents that are specific to the Kinston, North
4 Carolina facility run by duPont?
5 A Well, there's only one in this stack, this
6 letter from Dr. Ford in 1966 --
7 Q That indicates that the Kinston --
8 A -- one of the numbered exhibits from
9 yesterday.
10 Do you recall the one I'm talking about?
11 Q Yes, sir. Do you -- have you reviewed any
12 photographs in this case?
13 A No.
14 Q Have you ever taken -- have you ever seen or
15 analyzed any air sampling data taken from the Kinston
16 duPont facility?
17 A No.
18 Q Have you ever taken any air samples, or
19 analyzed any air sample data from any duPont facility?
20 A I don't think so.
21 Q With respect to your duPont file and the

1 other documents that you have produced in this case,
2 do those -- would those reflect all of the documents
3 that you've been supplied by the plaintiff in this
4 case or by Mr. Waters in this case?
5 A Right. That would be included in with the
6 documentation I already had in the duPont file.
7 MR. WATERS: And I guess as a practical
8 matter, he's also been supplied with the Harbison-
9 Walker documents as part of this case.
10 Q Have you prepared any type of written report
11 whether in draft or final form?
12 A No.
13 Q Do you expect that if called at trial in
14 this case that you'll testify to -- I'm going to ask
15 you several different areas. Let me know whether you
16 expect your testimony to be in those areas.
17 Risk assessment?
18 A That's a little vague. That can mean a lot
19 of things.
20 Q Okay. I'll withdraw that one. Toxicology?
21 A Probably not. I mean, I would -- I would

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1 basically testify about the animal studies, the
2 experimental animal studies that were publicly
3 available in the literature, and possibly some that
4 didn't quite get published, but beyond that, no, I
5 wouldn't be going into the toxicological and fine
6 points of some animal -- experimental animal studies.
7 Q All right, sir. Have you been
8 professionally trained in library science?
9 A No. It was just assumed to be something I
10 would learn how to do in the course of taking the
11 other courses I was trained in.
12 Q Do you know the details of the day-to-day
13 tasks performed by Lester Adams when he worked at the
14 duPont Kinston facility?
15 A No.
16 Q Do you know the history of any other
17 employment that he had?
18 A No.
19 Q Do you know what asbestos products, specific
20 products were used at the Kinston, North Carolina
21 facility?

1 And I'm talking about insulation products.
2 A You mean company and brand?
3 Q Brand.
4 A No.
5 Q Do you know where those products were
6 located?
7 A Well, I mean, pipe covering would have been
8 on pipes, but more than that I don't -- more
9 specifically than that I can't tell you.
10 Q And you don't know where those pipes were
11 located in relation to Lester Adams?
12 A No.
13 Q You do not know what dust control measures
14 were taken at the Kinston facility; is that correct?
15 A No.
16 Q Meaning you don't know?
17 A Well, I understand -- I mean, Dr. Ford's
18 letter indicates that they had dust collection of some
19 sort on a bandsaw in 1966, but apparently nothing
20 else.
21 Q So that's all the information you have.

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1 If they had additional things you don't know
2 about it?

3 A Right. I understand, I've talked to Mr.
4 Waters a little about this, and my understanding is
5 that there's a little bit of a dispute as to when
6 control measures were put into place in this case.

7 Q And you don't know what types of control
8 measures were in place from the very beginning of the
9 operation of the Kinston, North Carolina facility?

10 MR. WATERS: As opposed to what was stated
11 to be the case in 1966?

12 MR. COTTEN: I don't understand your
13 clarification.

14 MR. WATERS: He's testified that he reviewed
15 a document that discusses to some extent what control
16 mechanisms --

17 MR. COTTEN: Right. As opposed to that doc
18 -- what's said in that document.

19 Q In other words, all you know about it's
20 what's in that document and you understand there's
21 some dispute about when measures were instituted?

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1 A Right. I mean, it does appear that there
2 were all kinds of measures envisioned as being
3 necessary by Dr. Gordon Stopps, for example, in '64
4 and there were some memoranda that were developed
5 within the next two years and sent around by Dr.
6 D'Alonzo to the plant physicians -- well, that was
7 actually sent around November the 9th, and then there
8 were some more details about control measures that
9 might be needed.

10 But as to what was actually implemented and
11 when at this plant I can't tell you. I don't know.

12 Q You don't claim to be an expert in this case
13 in internal medicine do you?

14 A No.

15 Q You don't claim to be an expert in oncology,
16 pathology, pulmonology, toxicology or radiology; is
17 that right?

18 A Well, none of the medical specialties. And
19 no, not an expert in toxicology, although I have been
20 trained in toxicology, and it's one of the tools of my
21 trade.

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1 Q How many courses in toxicology did you take?
2 A I either took for credit or audited I think
3 every toxicology course that was offered at the Johns
4 Hopkins School of Hygiene and Public Health. There
5 were about six of them. That was Principles of
6 Toxicology and Toxicokinetics.

7 So I'm having trouble remembering the
8 names. It's been 15 years, but there were a number of
9 other courses as well in toxicology.

10 There were seminars in toxicology. I
11 presented one on fibrous substances in cancer.

12 Q When one in the field talks about exposure,
13 do you understand that they mean the concentration of
14 material in the air?

15 MR. WATERS: All right. When you say when
16 one in the field, is that a -- are you still speaking
17 of toxicologists?

18 MR. COTTEN: No, I apologize. Let's take
19 the field of industrial hygiene.

20 Q Do you know enough about industrial hygiene
21 to know if that is the definition of exposure?

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1 A Generally they're talking about what the
2 levels were in the air if you're talking about an
3 airborne contaminant. With some contaminants exposure
4 is also monitored by body burden. If you want to see
5 how much lead exposure someone has had, for example,
6 you might do analyses of the lead concentration in
7 their blood.

8 Q Would you agree that both high
9 concentration exposure for brief periods, hours or
10 days, and far lower exposure for long periods are
11 associated with some as yet undetermined cancer risk?

12 A You mean asbestos exposure?

13 Q Yes, sir.

14 A Yes. I mean, there are dose-response curves
15 that have been developed, but there's a fairly wide
16 range of uncertainty about these dose-response curves,
17 especially when one extrapolates down to lower and
18 lower levels of exposure.

19 Q And it's -- when you do that even to this
20 day, you have an undetermined cancer risk; is that
21 correct?

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1 MR. WATERS: At which levels now? Are we at
2 the lowest levels?

3 MR. COTTEN: Both high concentration
4 exposure for brief periods and far lower exposure for
5 long periods.

6 MR. WATERS: Well, let me just object. I
7 think the question is multiplicative.

8 A I think we have pretty good information
9 about the high levels of exposure and the risks
10 associated with them, but the shape of the dose-
11 response function as you go down to orders of
12 magnitude lesser exposure is the area where the
13 greatest uncertainties reside.

14 Q Based upon what Merewether published with
15 respect to the asbestos textile industries of the
16 early 20th Century, you would not expect to see
17 asbestosis in a worker with brief exposure in terms of
18 years, would you, sir?

19 MR. WATERS: I'm sorry. Would you mind --
20 just read it back. I didn't catch it all.

21 (Whereupon, the record was read by the

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1 reporter.)

2 MR. WATERS: All right. Then I guess I'd
3 just ask for clarification on what you mean, Larry, in
4 terms of brief exposure.

5 In terms of years, is it two years or five
6 years, or how would you define that?

7 MR. COTTEN: How about zero to two years.

8 A Well, let me answer the question.

9 I think that what Merewether showed was that
10 people who were actively employed in the industry but
11 who had been there less than five years did not have
12 asbestosis, but Merewether went on to explain that
13 this was because there was a maturation period
14 associated with the exposure, not that it took five
15 years of exposure to cause disease, but that among
16 people who were actively employed in the industry you
17 would not see disease until five years from the onset
18 of exposure even in the most heavily exposed cases.

19 And so Merewether made that clear.

20 Merewether, I don't think, tried to suggest that you
21 needed to have five years of heavy exposure in order

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1 to develop disease.
 2 MR. COTTEN: Objection. Nonresponsive.
 3 Q Do you recall that you made the statement
 4 under oath on October 8th, 1996 to a question you
 5 wouldn't expect to see it at all in those
 6 individuals?
 7 Your answer was no, not based on whether
 8 Merewether published on the unregulated asbestos
 9 textile industries of the early 20th Century.
 10 MR. WATERS: Okay. Before we have an
 11 answer, I'd like for him to have a chance to look at
 12 it --
 13 MR. COTTEN: Sure (indicating).
 14 MR. WATERS: -- to recall the context.
 15 A All right. What I'm being --
 16 Q Sir, respectfully -- and I don't mind if Mr.
 17 Waters wants to ask you questions about it. I just
 18 wanted to know if that was right you made the
 19 statement on that day.
 20 MR. WATERS: Okay. The problem I'm having
 21 is that that statement, to my way of thinking, doesn't

1 match with your previous question.
 2 So if you want to use the statement to
 3 impeach him, I think you're going to have to ask him
 4 another question first.
 5 MR. COTTEN: I think it goes back to --
 6 okay. I'll say it another way.
 7 Q With respect to people who are exposed --
 8 I'll tell you what. I want to withdraw it. It's not
 9 really worth it. I'll withdraw it.
 10 Dr. Castleman, do you agree that asbestos
 11 diseases are dose related?
 12 A Well, the risk of asbestos disease is dose
 13 related.
 14 Q Sir, do you recall making the statement on
 15 October 8th, 1996 in answer to the question, "Doctor,
 16 the jury heard a lot in the last three weeks, four
 17 weeks, whatever, but a lot of the doctors have told us
 18 that asbestos diseases are dose related."
 19 "Do you agree with that?"
 20 "ANSWER: Yes."
 21 Do you recall making that statement under

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1 oath?
 2 MR. WATERS: Can he again see it in context?
 3 MR. COTTEN: Yeah. I'd like to ask him
 4 first if -- before I impeach him with it and show it
 5 to him, I'm asking if he recalls making the statement.
 6 A I honestly don't recall every sentence I
 7 ever said in court.
 8 Q All right. Now I'll show it to you
 9 (indicating).
 10 A Right. I think the context makes it clear
 11 that we're talking about the higher the dose, the
 12 higher the risk.
 13 Q All right, sir. Thank you.
 14 Dr. Castleman, are you familiar with the
 15 fact that Dr. Selikoff made a statement to a reporter
 16 which was published in the Wall Street Journal in
 17 March of 1966 to the effect that asbestos is a
 18 marvelous product and that we should just learn to
 19 live with it?
 20 A I don't recall the specific statement. He
 21 may have said that in the course of explaining how

1 deadly it was.
 2 Q He would -- let me see if I understand what
 3 you said to me.
 4 You think that he would have said that
 5 asbestos was a marvelous product, and we should just
 6 learn to live with it even though it's a deadly
 7 product?
 8 A Right. At that time there were, as far as I
 9 knew, no readily available substitutes for asbestos-
 10 containing brakes in cars and trucks, for example.
 11 And so it was not possible in 1966 to talk
 12 about banning asbestos anytime in the foreseeable
 13 future because we did have this dependency on asbestos
 14 use in certain products, if not all the products in
 15 which it was then used.
 16 Q And Dr. Selikoff then was saying that the
 17 asbestos products could be used with proper
 18 safeguards; is that right?
 19 A Well, I think he was saying that some of
 20 them will have to be used with safeguards. Others we
 21 can probably do without.

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1 And they were using asbestos in children's
 2 modeling clays and other things back in those days
 3 where it wasn't exactly necessary.
 4 Plus, I might add that Selikoff was a doctor
 5 and not an expert on the technology of asbestos
 6 substitutes, and so he was not expertly placed to
 7 speak of what substitutes should be made available in
 8 each of the myriad applications in which asbestos was
 9 then used.
 10 Q Dr. Castleman, during the time that Lester
 11 Adams was employed at the duPont North Carolina --
 12 duPont Kinston, North Carolina facility, which was a
 13 20 -- over a 27-year period of time, would you tell me
 14 what you contend that duPont should have been doing at
 15 that facility that it was not doing?
 16 A DuPont should have been informing the people
 17 who were working with insulation, asbestos insulation,
 18 that the dust from that insulation was very deadly
 19 material.
 20 In addition to that, they should have taken
 21 every conceivable measure to have local exhaust

1 ventilation with dust capture on all the saws that
 2 were used as power saws to cut any of that
 3 insulation.
 4 They should have taken special measures to
 5 assure that sawing of the insulation with hand saws,
 6 which would probably be very difficult to provide with
 7 local exhaust ventilation, simply shouldn't be done,
 8 that the cutting that needs to be done, you take the
 9 stuff back to the shop, you cut the stuff on a saw
 10 that's properly provided with a well-designed local
 11 exhaust ventilation with good dust capture, high
 12 efficiency air filter for the capture of the dust, and
 13 very careful proper disposal including burial of the
 14 material thus captured.
 15 Wet processes should have been used wherever
 16 possible, especially in the stripping and removal of
 17 old insulation.
 18 The workers should have been provided with
 19 respirators whenever they were doing any of that.
 20 To the extent that pipe covering could be
 21 removed by putting plastic sheeting around it before

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1 breaking it off of pipes, that should have been done
2 so that the workers would not have to breathe the dust
3 associated with the ripout.

4 These are the kind of common sense things
5 that could have been done given the recognition that
6 the dust was that dangerous as it was shown to be at
7 the New York conference that Dr. Gordon Stopps
8 attended.

9 MR. COTTEN: I'd object to the answer as
10 being nonresponsive to the question asked.

11 Q I think the record is going to show that the
12 duPont Kinston facility was constructed in 1952 and
13 1953.

14 All of these measures that you have just
15 illustrated for the jury, are you saying that they
16 should have been doing those from 1952 forward?

17 A No. I mean, it would have been nice if they
18 had, but I think certainly after they brought Dr.
19 Schepers on board and they published what they did
20 about how in some cases even a month of exposure was
21 associated with asbestos-related disease and

1 fatalities, then when they had Dr. Stopps attend the
2 conference in New York and come back writing about how
3 even a home handyman who does a little bit of
4 insulation work in his house sustains a significant,
5 meaning potentially deadly, exposure to asbestos, and
6 that Dr. Stopps additionally made notes of the
7 presentations of foreign scientists at that conference
8 including Muriel Newhouse, Newhouse presenting data
9 showing that mesotheliomas, which were considered
10 signal tumors for asbestos exposure, were showing up
11 not only in asbestos workers who worked in asbestos
12 factories, but people who handled asbestos products
13 and insulation work and other kinds of work like that,
14 and then people whose only exposure was household
15 contact, exposure to the dust brought home on the
16 clothes of the worker, people who had never had any
17 occupational exposure, even bystander occupational
18 exposure to asbestos, and absent occupational and
19 household contact exposure people were dying from
20 mesothelioma simply from living within a half a mile
21 of an asbestos plant.

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1 And this was borne out by statistical
2 analysis of the 76 deaths-proved cases of mesothelioma
3 which Dr. Newhouse and her colleague, Muriel
4 Newhouse's colleague, Hilda Thompson, went and
5 investigated by investigations with -- interrogations
6 of near relatives and so on.

7 In any case, I think that the Newhouse and
8 Thompson report really told -- that was the -- that
9 told the death of the asbestos industry eventually
10 because it really pointed the way to showing us just
11 how serious the threat of asbestos was and how
12 widespread the threat of asbestos was.

13 MR. COTTEN: Object to the nonresponsive
14 portion of your answer.

15 Q The Merewether report, that concerned
16 workers in the United Kingdom textile plants, did it
17 not?

18 MR. WATERS: Which one?

19 Q Let's talk about the report on the effects
20 of asbestos dust on the lung and dust suppression in
21 the asbestos industry in 1930.

1 A That was primarily about asbestos textile
2 workers.

3 It did include other asbestos manufacturing
4 process workers, and it did also include a cautionary
5 note about the hazards of asbestos product use in
6 shipyards where insulation was handled.

7 Q Would you agree that the subjects in that
8 Merewether report were exposed to high levels of
9 asbestos dust for prolonged periods?

10 A Well, they were exposed to high levels of
11 asbestos -- well, I'm not sure that they all were.

12 Q You don't know?

13 A Well, they had very few dust counts. They
14 had 51 dust counts published for all of Merewether's
15 studies.

16 It's a -- you know, it's a limited picture
17 of the overall condition across the entire industry,
18 but I think one would assume in general the dust
19 counts -- the dust exposures were high.

20 They were certainly not controlled under any
21 legal requirements at the time.

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1 Q Would you agree that the Merewether report
2 contained no recommendations regarding exposure
3 levels?

4 A That's correct. The British approach was to
5 develop work practices that were better rather than to
6 pick some number out of a hat and say that just as
7 long as you get below this exposure level you don't
8 have to clean it up anymore.

9 Q Again, from the Merewether and Price report
10 of 1930, is it correct that that report recommended
11 local exhaust ventilation?

12 A Merewether and Price?

13 Q Yes.

14 A Yes, they had a lot of details in there on
15 dust control in the various sectors of the asbestos
16 manufacturing industry.

17 Q Including capturing dust at dust-producing
18 points and exhausting it away?

19 A Well, capturing it, yes, and exhausting --
20 exhausting -- at least exhausting it away from the
21 breathing zone of the worker.

1 Q Utilizing masked filters?

2 A That was presented more as a last resort.

3 Q Storage of asbestos materials away from the
4 workers?

5 A Yes. They wanted storage of asbestos in the
6 plant to be done in reasonably airtight containers.

7 They didn't want to have piles of asbestos
8 just lying around in the plants.

9 Q Would you agree that in that Merewether
10 study that he said that if you kept dust levels down
11 people shouldn't get sick?

12 A Well, what Merewether said exactly was as
13 the means of perfecting control of the dust are
14 developed, the disease will disappear, basically
15 saying perfect dust control means no exposure and
16 therefore no disease.

17 Q Do you know whether at the duPont Kinston
18 facility, whether Lester Adams was ever exposed to
19 asbestos dust in excess of the recommended or
20 regulated threshold limit value for asbestos?

21 A I don't know that his exposure was ever

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1 monitored, so I'm at a loss to answer that.
2 And by the way, that would have been a
3 recommended exposure limit, not a regulated one, as
4 far as I'm aware, at least up until the 1970s when
5 OSHA came along and established permissible exposure
6 limits for asbestos.

7 Q Would you agree that threshold limit values
8 prior to OSHA issuing regulations were treated by
9 industry as guidance as what should be regarded as
10 safe working conditions?

11 A Well, they were used for some guidance. The
12 people in industry who had more sophistication
13 realized that the threshold limit values were not fine
14 lines between safe and hazardous exposures and that
15 they were not always based on during much scientific
16 information.

17 Q Do you know if the 1946 ACGIH standard for
18 asbestos was developed in response to a risk in
19 asbestos textile plants?

20 A It's a little hard to answer that.

21 Q All right.

1 A The story of the development of the initial
2 list of the threshold limit values, which were called
3 maximum allowable concentrations back in 1946, is that
4 this volunteer committee, which did not include a
5 single doctor, of chemists and engineers and
6 toxicologists got together and recommended -- they
7 looked around at what the various states had said as
8 acceptable exposure limits for different types of
9 airborne industrial contaminants, and they developed a
10 list based on that and based on an article by an
11 insurance official named Warren Cooke.

12 And so they had this list that they
13 recommended in 1946, and I think there were 144
14 substances on the list. And there was nothing special
15 about asbestos. It was just something for which some
16 exposure limits already had been recommended by some
17 authorities somewhere and so it was adopted by the
18 ACGIH.

19 MR. VOGLER: Object and move to strike.

20 MR. COTTEN: Object. Nonresponsive.

21 Q Do you agree that from 1962 until 1972 the

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1 TLV for asbestos dust was at 5 million parts per
2 MPPCF, five million parts per cubic foot?

3 A The details are discussed in my book. I
4 don't recall off the top of my head. But they
5 recommended a change to that in 1968 or 1969, the
6 change of measurement technique and a change of the
7 extent and intensity of exposure recommending a limit
8 of 12 fibers per cubic centimeter or equivalently 12
9 million fibers per cubic meter of air.

10 Q You would agree that that notice was again
11 reissued in 1969?

12 A I think they reissued that notice in '69,
13 and then I think they withdrew a recommended limit of
14 any kind in 1970. And then after OSHA had set five
15 fibers per cc. as the law of the land, the TLV
16 committee caught up with them a few years later, and
17 the ACGIH came down to five fibers per cc.

18 And I have this displayed in the table in my
19 book in Chapter 4, how the TLV committee and the ACGIH
20 were consistently behind OSHA in lowering the
21 recommended exposure limits for asbestos.

1 MR. COTTEN: Objection. Nonresponsive.

2 Q Dr. Castleman, would you agree that the TLV
3 was defined as a safe upper limit or time-weighted
4 average concentration for work room air?

5 A Well, they probably --

6 MR. WATERS: Well, by who?

7 MR. COTTEN: By the ACGIH.

8 A They qualified that. They had various
9 language that they issued in what they called the
10 preface to the TLVs starting in 1953, and they always
11 allowed for the possibility that some workers would be
12 affected by levels that most workers could tolerate,
13 whatever the chemical or hazard in question.

14 And they also said that these limits are not
15 fine lines between safe and hazardous conditions, but
16 they also did include statements that were more
17 reassuring as to the extent of reliance that they
18 thought people could place on these exposure limits.

19 Q Such as statements that it reflected
20 conditions under which it was believed that workers
21 could be exposed day after day without adverse effect;

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1 isn't that correct?

2 A I think they said most workers. But again,
3 I don't recall the specific language by heart.

4 Q Would you agree that prior to 1972 there
5 was no federal regulation or law mandating air testing
6 for asbestos?

7 A I believe that's right. In the workplace,
8 as we've said, OSHA didn't come along until the early
9 '70s.

10 Asbestos was one of OSHA's first targets
11 with the issuance of an emergency temporary standard
12 in 1971, and then the issuance of a standard in 1972
13 which did require periodic air monitoring of
14 workplaces where people were exposed to asbestos.

15 Q Dr. Castleman, is it correct that you know
16 of no evidence that duPont at its Kinston facility
17 during the years of Lester Adams' employment there in
18 their use of insulation products, that there's no
19 evidence that they were out of compliance with the
20 five million particle per cubic foot air standard?

21 A Well, the five million particle per cubic

1 foot standard as you call it was just a recommended
2 guideline. The ACGIH had no regulatory authority.

3 It was just a private organization that
4 recommended exposure limits.

5 And so the only way I would know for sure of
6 Mr. Adams' exposure exceeding that five million
7 particles per cubic foot guideline would be if someone
8 had actually gone and measured his exposure, which I
9 understand was not done.

10 The only other way one could infer something
11 about that would be if there were periods of time,
12 significant periods of time, when there was visible
13 dust in the air that was being created by the
14 manipulation of asbestos insulation in the area where
15 Mr. Adams was working.

16 This would indicate levels of exposure on
17 the order of a hundred million particles per cubic
18 foot and more.

19 MR. COTTEN: Object to the nonresponsive
20 answer.

21 Q You're unaware of any evidence in this case

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1 of exposures to Lester Adams specifically; isn't that
2 correct?
3 A I'm unaware of any measured exposures.
4 Q Are you aware of any exposures? It's
correct that you assume because he was a sheet metal
worker that he was exposed; is that right?
6 A Right. Sheet metal workers generally work
around a lot of asbestos insulation, or at least they
did back in the days when asbestos was used in
insulation products.
11 MR. WATERS: And just to clarify a point, I
mean, as a part of the hypothetical I provided to him
yesterday --
14 MR. COTTEN: You asked him to assume that.
15 MR. WATERS: Right. He doesn't have any
personal knowledge, I assume.
17 THE WITNESS: Why don't we take a break.
18 MR. WATERS: Yeah, let's do that.
19 THE VIDEOGRAPHER: We're going to go off the
20 record at 2:35 p.m.
21 (Whereupon, discussion off the record.)

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1 that. I think we should see the reference itself if
2 we want to discuss what it says, but I recall the
3 comment.
4 I have been questioned about this comment a
5 number of times.
6 Q All right.
7 A And basically it sounds like speculation on
8 his part basically saying -- kind of optimistic
9 speculation -- maybe it will turn out that only the
10 people that are most heavily exposed to asbestos are
11 candidates for occupational cancer.
MR. COTTEN: Objection. Nonresponsive.
Q That's your spin on what he said?
14 A That's the way I read it. But again -- I
mean, if you've got the document in front of you --
16 Q Let me see if I can show you.
17 A Transcripts are not quite as reliable
18 because they do not have the complete context.
19 MR. WATERS: Well, let me object that if
20 you're going to ask him about a quotation from Dr.
21 Schepers, that I think it would be necessary for you

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1 page, sir?
2 "ANSWER: Yes.
3 "QUESTION: And does it not say, quote,
4 asbestos may after all prove to be carcinogenic only
5 in overwhelming dosage, thus the high prevalence of
6 neoplasia which is -- which was reported several
7 decades ago may be a function of the severity of
8 exposure rather than an indication of high
9 carcinogenic potency?
10 "I suspect that in the final analysis the
11 carcinogenesis -- carcino -- pardon me --
12 carcinogenesis of asbestos will be rated as of low
13 order."
14 Other than my terrible bumbling of the word
15 that I can't pronounce, did I read it correctly?
16 A Yes, I believe you did, but I think that
17 it's -- you know, it's important that he starts out by
18 saying asbestos may after all prove to be carcinogenic
over in -- only in overwhelming dosage.
I don't think he's really saying that that's
21 his opinion so much as a kind of an optimistic

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1 (Whereupon, a brief recess was taken -- 2:35
2 p.m.)
3 (Whereupon, after recess -- 3:02 p.m.)
4 THE VIDEOGRAPHER: 3:02 p.m. We're back on
5 the record.
6 BY MR. COTTEN:
7 Q In your discussions with -- let me withdraw
8 that.
9 Contrary to what was written in the 1960
10 chapter on chest diseases in the book on Occupational
11 Diseases that you've talked about concerning Dr.
12 Schepers, isn't it true that in -- I believe it was
13 1964 that Dr. Schepers commented that he then believed
14 that asbestos may after all prove to be carcinogenic
15 only in overwhelming dosage?
16 MR. WATERS: I'm sorry. What's the citation
17 again?
18 Where is this coming from?
19 MR. COTTEN: It's from the 1965 New York
20 annals.
21 A I don't think he said that he then believed

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1 to give him an opportunity to look at that.
2 Q Okay. And I'll work to do that, and I hope
3 to do that before I pass the witness, but until I get
4 there, the next best thing that I can do at this point
5 is to show you in -- the quote in the deposition that
6 you testified in.
7 Would that be helpful?
8 MR. WATERS: The problem with that is we
9 don't have any way to -- I don't know that the quote
10 was verified then.
11 MR. COTTEN: He verifies it.
12 MR. WATERS: The precise wording?
13 MR. COTTEN: Yes.
14 MR. WATERS: Okay. Well, why don't you take
15 a look at it, Doctor.
16 Q Let me read this to you, and then I'll hand
17 it to you and you tell me whether I read this
18 correctly.
19 "I hand you, Dr. Castleman, the 1965 New
20 York annals, and focus your attention, please, on page
21 595. And do we find a comment by Dr. Schepers at that

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1 speculation of what might prove to be the case.
2 Q You don't think it's a retreat from the
3 language that you centered on in the chapter on chest
4 disorders in the book of Modern Occupational Medicine?
5 A I guess it is a kind of retreat if you try
6 to compare it that way. It's certainly a much more
7 optimistic statement than I think that presentations
8 at that conference proceedings justified.
9 But in any case, that's what Schepers chose
10 to say at that time.
11 Q All right, sir. Thank you.
12 Are you familiar with the Barry & Newhouse
13 study in 1972?
14 A I'd have to see the document to remember
15 anything about it.
16 Q Okay.
17 MR. WATERS: Do you recall the title of it?
18 Oh, never mind.
19 Q No, that's fair enough.
20 Do you know that -- I think we've gone over
21 this.

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1 You were unaware about Lester Adams' smoking
2 history; is that right?
3 A That's right.
4 Q Do you know how many carcinogens have been
5 identified in tobacco smoke?
6 A A number of -- well, I mean hundreds of
7 chemicals have been identified in tobacco smoke, and a
8 number of them are different types of tar compounds
9 which if fractionated out and separated -- separately
10 analyzed for would number quite a few different
11 substances.
12 I don't know what the various numbers are
13 that have been published in different studies of that.
14 Q Would you agree with the proposition that
15 before the 1960s the principal concern of legislators
16 and regulators, those responsible for regulating
17 exposure to asbestos in the workplace, was asbestosis
18 and not lung cancer or mesothelioma?
19 A There wasn't anybody regulating asbestos in
20 the workplace back then.
21 Q And you're talking about in the United

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1 States?
2 A In the United States. I mean, there were
3 state programs that -- like the one we had in Maryland
4 before OSHA took over where you got a couple of old
5 guys who were sitting around and supposed to be
6 policing all the industries in the State of Maryland,
7 two guys and a secretary.
8 It was a -- that was typical, I think, of
9 state programs that existed prior to OSHA.
10 Q With respect to regulation of asbestos in
11 the workplace outside of the United States, would you
12 agree that before the 1960s the principle concern was
13 asbestosis and not lung cancer or mesothelioma?
14 A I think it depends who you asked. By the
15 late '40s the British were quite concerned about
16 cancer, lung cancer, especially cancers of the lung
17 and pleura as a complication or as certainly something
18 that was associated with asbestos exposure, and the
19 British authors emphasized their concern about that,
20 Dr. Merewether in his book in 1956, earlier in the
21 annual report of the Chief Inspector of Factories

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1 published in 1949, Doig in his work published in 1949.
2 Similar concerns were expressed by
3 McLaughlin in the paper that we've mentioned published
4 in 1955. He was also with the factory inspector in
5 Great Britain pointing to the rise in lung cancer and
6 the fact that something like 25 percent of autopsied
7 cases of asbestosis involved cancer of the lung.
8 So I don't know that I could agree with the
9 statement made in the kind of general way that you've
10 made it.
11 MR. COTTEN: All right. I'll object to the
12 nonresponsive portion of the answer.
13 Q Do you agree that it was generally the view
14 in the '50s and '60s that if industry took care of the
15 asbestosis problem, that the lung cancer problem would
16 then be taken care of too?
17 MR. WATERS: In the '50s and '60s?
18 MR. COTTEN: Yes.
19 A No, I would not agree with that.
20 Q All right.
21 A And I have cited references to that effect

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1 in 1952 and 1956 in which asbestos was explicitly
2 named as carcinogen and people indicated that the
3 guidelines developed to protect people from toxic
4 substances for other types of toxic effects cannot be
5 relied upon as safe if the substance also causes
6 cancer.
7 MR. COTTEN: Objection. Nonresponsive.
8 Q Would you agree that by the early 1950s in
9 the literature there was a recognition that cigarette
10 smoking was also being recognized as a potential cause
11 of lung cancer?
12 A Yes.
13 MR. WATERS: I apologize. I just didn't
14 hear the question.
15 Was that in the 1960s?
16 MR. COTTEN: Yes, sir. 1950s.
17 MR. WATERS: Okay.
18 Q Could you tell the jury what types of
19 literature and publications that information was
20 published in?
21 MR. WATERS: In the '50s?

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1 MR. COTTEN: Yes, in the 1950s.
2 A I don't have a thorough knowledge of the
3 literature on cancer from cigarette smoking, but as I
4 recall, Hill and Doll published an article in, I
5 think, 1950 or 1952.
6 I think that what they looked at was lung
7 cancer rates in doctors, medical doctors who smoked
8 and didn't smoke, and started to develop
9 epidemiological evidence that smoking was associated
10 with lung cancer risk. But as I say, I could be wrong
11 about some of that because I do not have detailed
12 familiarity with the epidemiology literature on lung
13 cancer from cigarette smoking.
14 Q Do you agree that opinions regarding what
15 constitutes good industrial hygiene practice have
16 developed over time?
17 MR. WATERS: In the context of asbestos or
18 just generally?
19 Q Let's put it in the context of asbestos.
20 A I would say that that's true. You know,
21 more -- certainly legislation has gone in that

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1 direction, and regulation has gone in the direction of
2 requiring more safeguards as time has gone on.
3 Q Would you agree that historically air
4 testing for asbestos only occurred within asbestos
5 mines and mills in those factories where asbestos was
6 used in the industrial process?
7 A No. I have a table in Chapter 4 of my book
8 about asbestos exposures associated with product use,
9 mostly insulation products, and there were many
10 studies published there.
11 Q I may have failed to preface my question
12 properly, and I meant to -- let me rephrase it and see
13 if your answer is still the same.
14 Would you agree that initially air testing
15 for asbestos only occurred within asbestos mines,
16 mills and those factories where asbestos was used in
17 industrial process?
18 A Well, the first testing was done in such
19 circumstances. If you go back to 1930, that's true.
20 Q Okay. And I apologize for misstating the
21 question in the beginning.

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1 Do you have an opinion as to when air
2 testing for airborne asbestos became prevalent in the
3 industry in general?

4 A After it was legally required by OSHA is my
5 impression. And even then it didn't become as
6 prevalent as the law said it should be.

7 Q Are you familiar with the different types of
8 equipment used for air testing?

9 MR. WATERS: Any given time or generally?

10 Q Let's start with the earliest equipment.

11 A Well, the earliest devices were called the
12 midget impinger and the konimeter. I have some
13 familiarity with them.

14 Q What was the second one you mentioned?

15 A Konimeter, k-o-n-i-m-e-t-e-r.

16 Q Was that a piece of air testing equipment
17 that preceded the midget impinger?

18 A I think it may have actually been developed
19 in South Africa or someplace outside the U.S. before
20 the midget impinger came along.

21 Q Do you know about when that original

1 equipment for air testing first became available?

2 MR. WATERS: The konimeter?

3 Q Konimeter?

4 A I couldn't reference it, but my recollection
5 is that the konimeter was around from sometime around
6 1915 to 1920 and that the midget impinger came along
7 in the early '30s.

8 Q With respect to the konimeter, was that the
9 very large and cumbersome original air testing
10 equipment?

11 A I don't think it was that large.

12 Q Are you familiar with any air testing
13 equipment that preceded the two that you identified?

14 A Well, they had different types of sampling
15 for other kinds of air contaminants than dusts, but
16 aside from -- if you're talking about industrial dust
17 exposures, I don't know of others besides those two.

18 There was also something called a thermal
19 precipitator which was a more recent development than
20 those two as I understand it.

21 Q Sir, would you agree that before the

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1 introduction of the midget impinger that air sampling
2 for asbestos was not common outside the mines, mills
3 and textile plants?

4 A I'm sure that's true. We're talking now
5 about the early '30s I think.

6 Q And would you agree that until the membrane
7 filter method was introduced that personal sampling
8 was not practicable?

9 A I don't know. That may be, but I don't
10 know.

11 Q Do you know when the membrane filter became
12 available?

13 A I think it was introduced in the 1960s
14 although there was some earlier work along those lines
15 done in Britain in the '50s. That's my understanding.

16 Q Do you have an opinion as to when air
17 testing for asbestos became prevalent within the
18 chemical industry?

19 MR. WATERS: By prevalent do you mean more
20 than half of the members were doing it or -- can you
21 just --

1 MR. COTTEN: Widespread. And I know that's
2 very broad but --

3 A Probably it would have been after the
4 requirement by OSHA that air monitoring be done, and
5 chemical companies that employed people to work around
6 pipe covering on a regular basis would have been
7 covered by that requirement and that was, I think,
8 1972.

9 But prior to that industry was on its honor
10 as far as such things as air sampling went.

11 Q Who put them on their honor according to
12 you?

13 A I would say that they were on their -- what
14 I mean by that is that they were not required to do
15 this by any outside force, and so it was only their
16 own motivations that would have led the companies in
17 industry to take these protective measures for their
18 employees.

19 Q Would you agree that prior to the 1970s the
20 technology required for the measurement of airborne
21 asbestos fiber was not generally available?

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1 MR. WATERS: For measurement of the fibers?

2 MR. COTTEN: Yes.

3 A I think that the sampling techniques were
4 around before that, as evidenced by the ACGIH
5 proposing fiber counts in the late 1960s as the
6 exposure standard for asbestos. But, you know, it's
7 not much before the 1970s that this sort of sampling
8 was around. I would say probably the early '60s.

9 This is really something to ask an
10 industrial hygienist because when you start talking
11 about the history and the fine points of the air
12 monitoring analytical equipment, I'm at a bit of a
13 loss to give you the same kinds of answers that I can
14 give you about some of the other things we've talked
15 about.

16 Q All right, sir.

17 There were -- in this lawsuit, Dr.
18 Castleman, there have been interrogatories that have
19 been answered by the plaintiff, Mrs. Adams, including
20 an interrogatory with respect to opinions that -- and
21 the bases for the opinions that you would offer in

1 this case.

2 Were you aware of that?

3 A I haven't looked at text of these
4 representations, but I do understand that this is
5 typically done in litigation that the lawyers for both
6 sides will put forward some annotation of who they
7 intend to use as experts and what basically those
8 people will cover.

9 Q One of the items in the category of experts
10 that you're listed under says that you will testify
11 that all defendants conspired to suppress information
12 pertaining to the hazards of asbestos, exposure to
13 asbestos-containing products and the diseases
14 resulting therefrom.

15 Are you making that --

16 MR. WATERS: Does it say will or may? I'm
17 sorry.

18 MR. COTTEN: It says will.

19 MR. WATERS: Okay.

20 Q Are you making that assertion that duPont
21 conspired to suppress information with respect to the

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1 hazards of asbestos in this case?
 2 A I think it's more a case of inaction by
 3 duPont than a case of conspiracy.
 4 Q Something that they should have done?
 5 A Something that they should have done. I
 6 mean, you can use expressions like conspiracy of
 7 silence to generally characterize how come asbestos
 8 insulation products were used the way they were used
 9 for as long as they were used in this country, and the
 10 workers weren't aware of the dangers they were facing,
 11 but in a more conventional sense the word conspiracy
 12 implies a more concerted type of action by the parties
 13 involved.
 14 So it's just a question of what you mean by
 15 the term. I would say that, you know, if it was a
 16 conspiracy of silence you're talking about, then
 17 perhaps so.
 18 If it's a conspiracy in the sense of people
 19 sitting around the table and deciding to suppress or
 20 distort knowledge, that's a little more strict of a
 21 standard, and I wouldn't apply that to duPont based on

1 what I know at this time.
 2 MR. COTTEN: I want to do a little bit of
 3 maintenance now.
 4 We might want to go off the video record
 5 about that unless you want to stay on.
 6 It has to do with the reports that he's
 7 referred to in his testimony that we don't have copies
 8 of.
 9 MR. WATERS: The reports. Oh, you mean some
 10 of the literature perhaps?
 11 MR. COTTEN: Uh-huh.
 12 MR. WATERS: That's fine.
 13 MR. COTTEN: Okay. Why don't we go off the
 14 video record.
 15 THE VIDEOGRAPHER: We're going to go off the
 16 record at 3:27 p.m.
 17 (Whereupon, discussion off the record.)
 18 MR. WATERS: Were there any of those that I
 19 have that you didn't perhaps get a chance to look at
 20 yesterday?
 21 I wasn't clear. How many did you wind up

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1 left with?
 2 MR. COTTEN: All these highlighted ones,
 3 13.
 4 MR. WATERS: Just so I'm clear, those are
 5 studies that he referred to in his deposition
 6 presumably back in December.
 7 MR. COTTEN: Uh-huh, except for one that he
 8 testified to today; is that right?
 9 That's the Mills, if I'm reading that right,
 10 Minnesota Medical Journal.
 11 THE WITNESS: I testified about JAMA
 12 editorial.
 13 MR. COTTEN: That mentions Mills. Okay.
 14 Then we won't -- I understand that.
 15 So how do you want for us to proceed?
 16 MR. WATERS: sounds like what you want to do
 17 is ask him of the ones that he has made reference to
 18 whether or not he has them in his possession.
 19 I mean, I don't want to tell you how to do
 20 your job.
 21 MR. COTTEN: My problem is it kind of goes a

1 little bit further than that.
 2 We have him stating propositions that he
 3 believes are contained in these reports as basing his
 4 opinions, at least, in part on these matters, and
 5 these what he's relying upon, at least, 12 specific
 6 documents or articles, reports, haven't been made
 7 available.
 8 MR. WATERS: Well, and to the extent he
 9 doesn't have them, then I don't think that's going to
 10 be an issue. That's why I'm saying you may want to
 11 discuss with him whether or not he knows if he has any
 12 of these, and then we can kind of narrow the list.
 13 That's just my thought.
 14 MR. COTTEN: I think it's a pretty good
 15 suggestion.
 16 Q Dr. Castleman, we are trying to gather all
 17 of the documents, articles, reports that you have
 18 discussed in your testimony beginning with your
 19 testimony back in November of 1996 specific to this
 20 case.
 21 And although we have located some of these

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1 matters on our own, and we've been supplied with
 2 others by Mr. Waters, there are a number that we can't
 3 account for.
 4 And let me ask you if you have some of
 5 these, and if you do, maybe I can obtain copies from
 6 you.
 7 MR. WATERS: Let me also suggest that to the
 8 extent he doesn't have copies or can't give you
 9 copies, feel free to ask him where you could get them
 10 because he may know where they're most easily found if
 11 they're hard to find.
 12 Q First one is the annual reports of the Chief
 13 Inspector of Factories and Workshops, governmental
 14 reports from England, from Great Britain, that make
 15 references to the effects of asbestos on the lungs
 16 back in 1898 and 1899.
 17 A I've got that or at least the pages that
 18 talk about asbestos.
 19 Q Do you have them with you here today?
 20 A No, but I can find that. I can get you --
 21 well, before I offer to get you anything, let's see

1 what else is on the list.
 2 Q All right. The second one is a 1925 article
 3 published in the United States which references
 4 Cooke's 1924 article.
 5 A I don't know about that. I can give you the
 6 reference to it. It's probably available in good
 7 medical libraries in most of the major cities of the
 8 United States.
 9 It's an article by Pancoast and
 10 Pendergrass. Well, you have probably the reference,
 11 but I'll tell you what reference number it is and what
 12 page that reference is sited on.
 13 Would that help?
 14 Q It may.
 15 THE VIDEOGRAPHER: I've got about seven
 16 minutes on this tape.
 17 Do you guys prefer to roll through the seven
 18 minutes or just stop and conclude this tape?
 19 MR. WATERS: I don't know that it matters.
 20 A This is reference 20 on page 41. It's a
 21 very long article, 42 pages.

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1 Q The next one is Harold Stewart, 1931,
2 published in U.S.
3 A I think I have that.
4 Q All right, sir.
5 The next one is Russell published in the
6 U.S. in 1933 and in Britain in 1934 describing
7 individuals as pipe coverers or maintenance workers
8 and government hospitals.
9 A I have Russell, I think, and the 1934
10 probably refers to Ellman in the British Journal of
11 Radiology.
12 Q Do you have Ellman's report?
13 A I don't know. Ellman also published a
14 similar statement in a 1933 report.
15 Do you want me to see which one I can find
16 and send you whichever one I can find?
17 Q Yes, sir. Merewether 1938.
18 A You've got it. That's the -- hold it.
19 Well, Merewether authored -- there are two things he
20 wrote in 1938.
21 One is the occupational health supplement to

1 the ILO which he wrote with Dr. Gloynce. Maybe that's
2 what you're talking about.
3 Q What was the other one in 1938?
4 A Something called Dust in the Lungs published
5 in a reference called Industrial Medicine Symposium,
6 Number 3. This is referenced on page 408 of my book.
7 Q Is that the one where you say that it
8 discusses the hazard of asbestos with regard to
9 insulation work or is that the other one?
10 A Well, it does that -- the one I just talked
11 about does that. I don't know if the ILO one does or
12 not.
13 Q Okay. Do you have that one that
14 discusses --
15 A I don't know.
16 Q And is there a cite for it?
17 A The cite is next to the last one on page
18 408 of my book.
19 Q All right. Dr. Nordmann, German author
20 1938, German Industrial Hygiene and Toxicology?
21 A That's an abstract. I have that.

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1 Q Hueper, 1943?
2 A I think I have that.
3 Q 1952, Harriet Hardy?
4 A I don't know if I have that. That's the
5 reference on the bottom of page 409 in case you need
6 to look it up.
7 It's in the New England Journal of Medicine
8 available in almost every local medical library in the
9 country.
10 Q Would that be true of the 1953, Harriet
11 Hardy paper that she co-authored about the asbestosis
12 in combination with lung cancer?
13 A That's in a different journal. That's the
14 article third to the bottom on page 395.
15 That's in a journal called the American
16 Journal of Medicine. That should also be pretty easy
17 to find in the Houston Medical Library or Dallas,
18 wherever you're located.
19 Q And a 1935 document developed early in the
20 general plan of the Industrial Hygiene Foundation
21 discussing formulating air levels.

1 MR. WATERS: Is that the Konicide Club or is
2 that something else?
3 A Can you tell me more?
4 Q I think it's just referenced as a 1935
5 document developed early in the general plan of what
6 the Industrial Hygiene Foundation was going to be, and
7 then says discussed that formulating air levels could
8 prevent personal injury suits.
9 A Okay. I think I know what you mean.
10 Q Do you know if you have that one?
11 A I think I do have that, yes.
12 Q All right, sir. To the extent that you have
13 those, would you please make copies and provide those
14 to Mr. Waters so that he can get copies over to me?
15 A Yes.
16 Q All right. And out of curiosity, how was it
17 that those items escaped your attention in response to
18 the subpoena that asked for all of the articles?
19 MR. WATERS: Let me just speak for the
20 record.
21 I think the Doctor testified that he has

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1 never read his prior deposition, and I don't know
2 about you, but I certainly couldn't remember 51
3 articles or 51 references.
4 MR. COTTEN: They were all listed in the
5 subpoena.
6 MR. WATERS: Each of these you just went
7 through?
8 MR. COTTEN: Yes.
9 MR. WATERS: Well, as you've seen it's been
10 necessary for us to talk back and forth about some of
11 them to establish exactly what they are.
12 I'm not sure that we're clear on all of
13 them, but in any event, he will endeavor to give you
14 what he has or give me what he has.
15 MR. VOGLER: Can we do some housekeeping?
16 Andy, could you just confirm -- well, we can just go
17 off the record.
18 (Whereupon, discussion off the record.)
19 (Whereupon, after recess -- 3:58 p.m.)
20 THE VIDEOGRAPHER: 3:58 p.m. We're back on
21 the record.

1 BY MR. COTTEN:
2 Q Dr. Castleman, let me show you the exhibit,
3 Mr. Waters' exhibit, Castleman Number 3, and I want to
4 ask you a couple of questions about that.
5 (Whereupon, document tendered to the
6 witness.)
7 A Sure.
8 Q Did you prepare that outline?
9 A I prepared this with Mr. Waters. He did the
10 typing.
11 Q All right, sir. When was that --
12 MR. WATERS: Very slowly. I might add.
13 Q When was that prepared?
14 A Over the last several days. Mainly on
15 Monday actually.
16 Q Was there a handwritten version of that
17 outline prior to coming up with the typewritten
18 version?
19 A No. I mean, he had a computer he was
20 carrying around with him and just typed it up.
21 Q All right. Do you mind if I have that

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1 back?
 2 A (Indicating).
 3 (Whereupon, document tendered to counsel.)
 4 Q Thank you. On Castleman Exhibit Number 9,
 5 which is a memo on duPont letterhead, that discusses
 6 some concerns regarding the potential for asbestos in
 7 talc. Is that what you understand it to be?
 8 A Yes.
 9 Q Does that -- do you have any information
 10 whether in that document or otherwise, sir, that
 11 indicates how that product talc is received by the
 12 duPont Company?
 13 A No.
 14 Q Is that an indication to you that at some
 15 point in time the duPont Company became aware that
 16 there was asbestos in a product that they were
 17 bringing to their facility, specifically talc?
 18 A Yes.
 19 Q All right, sir. To your information, Dr.
 20 Castleman, duPont does not manufacture or distribute
 21 for sale talc in and of itself?

1 A No, not as far as I'm aware.
 2 Q Let me hand you what's marked as Castleman
 3 Number 4 and ask you, sir, if that shows -- that
 4 document, two-page document, shows where it has been
 5 signed whether under oath or otherwise by any of the
 6 parties to that litigation. It's Exhibit 14?
 7 (Whereupon, document tendered to the
 8 witness.)
 9 A No, this is just an excerpt -- I believe I
 10 was involved in this case and that the plaintiff's
 11 attorney was Thomas Crumplar.
 12 Q And this was a document that was prepared
 13 and submitted by the plaintiff in this case; is that
 14 correct?
 15 A Part of it, yes.
 16 Q Any part of it prepared by the defendant in
 17 this case?
 18 A No.
 19 Q Let me hand you Castleman Number 18, a
 20 two-page exhibit. And would you agree with me that
 21 that appears to be a document that was a part of

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1 this -- is it MacMurray litigation? Is that the --
 2 yeah, MacMurray litigation?
 3 (Whereupon, document tendered to the
 4 witness.)
 5 A Right. If you can get the other one, it
 6 looks like they may be the same document because these
 7 two sheets are numbered 3 and 4.
 8 Q All right. Do these appear to go together?
 9 A Let's see. Yes.
 10 Q And would you agree with me that on page
 11 four that the only signature on that page is the
 12 signature line and signature of the plaintiff's
 13 lawyer?
 14 A That's right.
 15 Q And that's not been verified?
 16 A Well, it's based on the testimony of the
 17 plaintiff.
 18 MR. COTTEN: Objection. Nonresponsive.
 19 Q It's not a verified answer to interrogatory
 20 is it, sir?
 21 In other words, it's not been sworn to by

1 the lawyer or by his client?
 2 MR. WATERS: well, that assumes that's
 3 necessary in the State of Delaware. I don't know
 4 personally.
 5 MR. COTTEN: May be necessary in the State
 6 of Texas for this to be used, and that's my point.
 7 MR. WATERS: Okay.
 8 A I really don't know what the rules are in
 9 the State of Delaware, but I would assume as an
 10 officer of the court that it would be perilous for any
 11 lawyer to submit statements to a court which are
 12 untrue and not supported by evidence.
 13 MR. COTTEN: Objection. Nonresponsive.
 14 A I also know Mr. Crumplar to be a very
 15 experienced, knowledgeable and capable attorney --
 16 MR. COTTEN: Objection. Non --
 17 A -- and not someone given to loose talk in
 18 legal documents.
 19 MR. COTTEN: Objection. Nonresponsive.
 20 Q It's your understanding that -- it's Mr.
 21 Crumplar, is that his name --

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1 A That's right.
 2 Q -- that he was representing his client in a
 3 lawsuit seeking money damages from the party that he
 4 sued?
 5 A Right.
 6 Q Yesterday or the day before in your -- it
 7 would be yesterday -- in your testimony you referred
 8 to the June 2, 1966 memo or letter from Dr. Stopps to
 9 Dr. Arthur C. Stevenson, director Elastomers'
 10 chemicals' department, Elastomers Laboratory, did you
 11 not?
 12 A I believe so with respect to the 1907 date
 13 of recognition of asbestos hazards.
 14 Q Could I have that back, please.
 15 (Whereupon, document tendered to counsel.)
 16 A (Indicating).
 17 Q I'm going to come around beside you because
 18 this is the only copy of this that I've got.
 19 MR. WATERS: He's got a copy as well, but
 20 whatever's easiest.
 21 Q Do you have a copy of this memo?

1 A Not here unless --
 2 MR. WATERS: You do. It's the first thing
 3 on the stack. We put them in sequence after your
 4 outline.
 5 THE WITNESS: Let's see. I'm not sure what
 6 you mean.
 7 MR. WATERS: well, they were at one time in
 8 chronological sequence, and the first one was marked
 9 1907, but I don't know what happened.
 10 A So it should be right here, huh? No, this
 11 has got 1972 documents.
 12 Q Here it is, isn't it (indicating)? Is that
 13 it? That's it, isn't it?
 14 MR. WATERS: June 16, '72?
 15 MR. COTTEN: should be June 2, 1966.
 16 MR. WATERS: Those are those documents
 17 that -- let's see.
 18 THE WITNESS: This is all mixed up.
 19 MR. WATERS: well, this stuff got out of
 20 order.
 21 THE WITNESS: why don't you bring it around

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1 since it's getting late. We can read it together.
 2 MR. WATERS: All right. Here it is, 1907
 3 out of order.
 4 Q Is that a document dated June 2, 1966 from
 5 G. J. Stopps, M.D., B.S.?
 6 A Right.
 7 Q To Dr. Arthur C. Stevenson?
 8 A Yes.
 9 Q And in the second paragraph of that memo or
 10 letter -- and this is what you referenced about 190 --
 11 1907 that asbestos fibers can cause chronic pulmonary
 12 disease has been recognized since 1907, and with this
 13 recognition came control measures aimed at reducing
 14 the amount of dust produced during the mining of the
 15 krudman mineral and its subsequent conversion into
 16 finished products.
 17 That's what that entire sentence says, isn't
 18 it?
 19 A That's right.
 20 Q If you go down to the third paragraph does
 21 it say that there are three factors which are

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1 disquieting about these new health problems
 2 surrounding the use of asbestos?
 3 Is that what the first sentence says?
 4 A Yes.
 5 Q And Dr. Stopps characterizes the health
 6 problems as new?
 7 A He uses the word "new" in that sentence.
 8 Q All right. Firstly, the possible
 9 association between cancer and asbestos naturally is a
 10 matter for concern.
 11 Secondly, such evidence as there is points
 12 to an incubation period which may be as long as 40
 13 years.
 14 And thirdly, there is some rather
 15 fragmentary evidence that short exposures to
 16 apparently small amounts of asbestos fibers may
 17 produce cancer many years later.
 18 Next sentence. At this time our knowledge
 19 is insufficient to answer the question what is the
 20 smallest amount of dust and the shortest exposure that
 21 might produce cancer.

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1 Did I read that correctly?
 2 A Yes, you did.
 3 Q And it goes on to say that from a practical
 4 point of view, if the dust does not gain access to the
 5 body there will be no problem, therefore, dust
 6 respirators will protect the personnel wearing them.
 7 Did I read that correctly?
 8 A You did.
 9 Q The next paragraph. Operations which
 10 produce asbestos dust should be designed so that the
 11 dust is contained and exhausted into a system that
 12 will prevent re-entrainment of the asbestos fibers.
 13 Did I read that correctly?
 14 A You did.
 15 Q What does re-entrainment mean?
 16 A Well, he's basically saying that the dust
 17 should be captured when it's exhausted from the
 18 breathing zone of the worker and not just blown in
 19 someone else's face.
 20 Q Not recirculated or --
 21 A Right. And not -- certainly not

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1 recirculated through the air of the building but
 2 should be -- the dust should be collected after it has
 3 been exhausted from the breathing zone of the worker.
 4 Q Do you know anything about the ventilation
 5 systems and exhaust systems that were in place at the
 6 duPont Kinston facility during the years that Lester
 7 Adams worked at that facility?
 8 MR. WATERS: Objection. Assumes that there
 9 were some. Assumes facts not in evidence.
 10 MR. COTTEN: I'll tie it up.
 11 A The only -- the only thing that comes to
 12 mind is this reference to bandsaw dust collection --
 13 Q All right. And that's all --
 14 A -- in the letter from Dr. Ford in 1966.
 15 Q That's all you're aware of?
 16 A Right.
 17 Q And if there actually were these types of --
 18 or additional ventilation systems at the Kinston
 19 facility, you didn't take those into consideration in
 20 arriving at your opinions with respect to my client in
 21 this case; is that right?

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1 A That's right. I'm not aware of other saws
 2 that had local exhaust ventilation and dust captured
 3 with the high efficiency air filter.
 4 In fact, I'm not aware -- I'm not sure that
 5 dust was captured from the bandsaw referred to by Dr.
 6 Ford, only that it was exhausted from the saw blade
 7 area.
 8 Q Next paragraph -- and follow me if you
 9 would -- customers should be advised that there is
 10 some hazard associated with working with asbestos and
 11 that strict dust control measures must be taken. If
 12 personnel will unavoidably be -- unavoidably be
 13 exposed to asbestos dust they should wear dust
 14 respirators.
 15 Did I read that correctly?
 16 A You did.
 17 Q In some cases perhaps other fibers such as
 18 glass could be used in place of asbestos.
 19 Did I read that correctly?
 20 A You did.
 21 Q In attempting to warn people of the health

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1 hazards of asbestos I've been handicapped by the
 2 enumerable uses of the mineral so that it becomes very
 3 difficult to locate groups such as yours that are
 4 working with the material.
 5 Should you know of other groups I should be
 6 grateful if you would let me know of them.
 7 Did I read that correctly?
 8 A You did.
 9 Q I believe then the next or one of the next
 10 documents that you referred to was the book on
 11 Industrial Maladies.
 12 Do you have that one in front of you, sir?
 13 MR. WATERS: If you give him the date
 14 reference it will help him.
 15 THE WITNESS: I know that one.
 16 Q 1934, Oxford University Press, London.
 17 A Okay.
 18 Q On page 191 --
 19 THE VIDEOGRAPHER: I'm not sure why it is
 20 but it shut itself off. Give me one second.
 21 (Whereupon, pause.)

Page 627 1 MR. COTTEN: Let's go off the record. 2 (Whereupon, discussion off the record.) 3 (Whereupon, after recess -- 4:17 p.m.) 4 THE VIDEOGRAPHER: We're back on the record, 5 January 30th, 1997 at approximately 4:17 p.m. This is 6 the beginning of tape number five. 7 BY MR. COTTEN: 8 Q Dr. Castleman, redirecting your attention to 9 the copy of the book, Industrial Maladies by Sir 10 Thomas Legge printed in 1934 -- published in 1934 by 11 the Oxford University Press, London, would you turn to 12 page 191 of that. 13 A Yes. 14 Q This is a document that shows up on the 15 outline that you and Mr. Waters prepared; is that 16 correct? 17 A Yes, it does. 18 MR. WATERS: Let me object. I think that's 19 a mischaracterization. 20 MR. COTTEN: I thought that's what he told 21 me.	Page 628 1 MR. WATERS: I did the typing. The outline 2 is the result of his knowledge, his analysis of the 3 documents, and the other information, so I think it's 4 a misnomer to say it's something that he and I 5 prepared together. 6 Q Is the document that Mr. Waters typed that 7 is marked as Exhibit -- well, this one is -- 8 MR. WATERS: 3. 9 Q -- Exhibit 3, Castleman 3, is it the result 10 of the information that you had concerning duPont, Dr. 11 Castleman? 12 A Yes. 13 Q It's also a result of information that you 14 were provided by Mr. Waters concerning duPont; is that 15 correct? 16 A Right. There was some additional 17 information such as the copy of this document with the 18 duPont Bates stamp and the title page or one of the 19 interpages signed medical directors office, January 20 1935. 21 Q All right. Now, again, redirecting you to
Page 629 1 page 191 of the book on Industrial Maladies which 2 shows up on the outline, about four-fifths of the way 3 down the page there's a paragraph that begins with the 4 word "about." 5 Do you see that? 6 A Yes. 7 Q That says about 2,200 persons are exposed 8 daily to inhalation of pure or almost pure asbestos 9 dust. 10 Is that what -- the statement there? 11 A Yes. 12 Q And then if you'd turn to page 193. 13 A Yes. 14 Q And if you would drop down to the paragraph 15 that begins with the difficulty of controlling the 16 dust. 17 A Yes. 18 Q Now, this is talking about the repairing of 19 mattresses, is it not? 20 A Yes. 21 Q And it says that by requiring the process to	Page 630 1 be carried on in a room in which no other work is 2 done, right? 3 A Yes. 4 Q And provision of adequate exhaust and inlet 5 ventilation in accordance with arrangements to be 6 approved. And then there's a parenthetical and then 7 in each case. And 3 damping of floors and benches and 8 covers. 9 What is damping of floors and benches and 10 covers? 11 A I suppose they mean washing of the floors 12 and wiping -- wet wiping of the surfaces. 13 Q If you now will turn in the stack of 14 documents to the excerpts from the deposition of Dr. 15 Stopps, and I believe that you've got -- what you've 16 talked about is page 374. 17 MR. WATERS: That's actually not in the 18 stack. I'll go get the Stopps deposition. 19 MR. COTTEN: The part I'm going to direct 20 his attention to is here. 21 MR. WATERS: Is it relatively complete?
Page 631 1 MR. COTTEN: Yeah. 2 MR. WATERS: It's not a mistake, Barry? 3 THE WITNESS: Right. I'm just putting this 4 back. 5 MR. WATERS: Okay. 6 Q I wanted to ask you on page 374 -- and I'll 7 read this to you, and you can tell me whether I read 8 it correctly. 9 "Do you recall if during your tenure at 10 Haskell they received the Journal of Industrial 11 Hygiene which --" 12 And then he answers "yes, they did." 13 "QUESTION: Did they receive the public 14 health reports? 15 "ANSWER: Can't remember whether they did. 16 It would have been a bit more peripheral to their main 17 concern. 18 "QUESTION: What about the Journal of the 19 American Medical Association? 20 "ANSWER: We didn't -- I mean at Haskell, 21 because that was maintained in Wilmington in the	Page 632 1 medical department. 2 "QUESTION: Did you receive that journal 3 yourself? 4 "ANSWER: No." 5 Would you look at that and see if I read 6 that correctly. 7 (Whereupon, document tendered to the 8 witness.) 9 A Yes, you did. 10 Q Thank you, sir. Then in the -- I don't know 11 if this is a book or an article by Robert Eckardt. 12 A It's a book. 13 Q A book in 1959 called Industrial 14 Carcinogens. Do you have that in your stack there, 15 sir? 16 A Yes. 17 Q If you would look on page Roman Numeral xi. 18 Do you have that? 19 A I don't think I do. 20 MR. WATERS: We weren't provided the whole 21 book obviously.

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1 Q Let me see what you've got there.
 2 A (Indicating).
 3 (Whereupon, document tendered to counsel.)
 4 MR. COTTEN: Andy, what I was going to go
 over with him was the -- there's a preface or a
 preamble to the book that you apparently have not
 7 seen.
 8 MR. WATERS: Right.
 9 MR. COTTEN: And I apologize that you've not
 10 seen that (indicating).
 11 MR. WATERS: Okay.
 12 Q I want to read something to you from the
 13 preamble of that book that makes up a part of the
 14 outline.
 15 MR. WATERS: Are you going to read him the
 16 whole thing?
 17 MR. COTTEN: Just this part right here, and
 18 then I'll show it to you to see if it's been read
 19 correctly.
 20 Q It is probable that the development of
 21 chemical -- with the development of chemical industry

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1 assessments of chemical carcinogens as indicated by
 2 that inclusion of that preface.
 3 Q On page 3 of the outline there are
 4 references to pages from the deposition of Ken Keuper,
 5 and I believe that you indicated yesterday in your
 6 testimony that Ken Keuper was with the construction
 7 division of duPont?
 8 A I believe so, yes.
 9 Q And I wanted to bring to your attention in
 10 that -- from that same deposition and from the same
 11 page -- two of the same pages that you read from
 yesterday, and then the two following pages, and I'll
 share this with you.
 14 "You told us yesterday, and I will ask again
 15 to make a complete record.
 16 "Who was your immediate superior or who did
 17 you work -- who did you report to in your capacity as
 18 an assistant safety engineer? Safety superintendent.
 19 I'm sorry.
 20 And then the answer, "Assistant safety
 21 superintendent, Joe DeLuca.

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1 "ANSWER: No.
 2 "QUESTION: But he never promoted it
 3 neither?
 4 "ANSWER: Didn't promote it. He may have
 5 been promoting it unbeknownst to me because finally in
 6 '62 I kept pushing him on it asking him about it,
 7 bringing this problem up on it.
 8 "Finally in 1962 I got word back from him
 9 that said Joe came in and told me the man said go
 10 ahead with it, so you go on ahead suggested to me I
 11 get Zonn involved in it.
 12 "QUESTION: Do you know --"
 13 That question's not answered so I won't read
 14 that.
 15 "QUESTION: You don't know what changed his
 16 mind?
 17 "ANSWER: I don't know.
 18 "QUESTION: Did anybody between 1959 and the
 first conversation with Dr. Zapp ever discourage you
 from pursuing the questions revolving around asbestos
 21 exposure?

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1 we will see new chemical cancers and medicine must be
 2 on the watch for such developments, but it must
 3 refrain from hastily ascribing to industry those
 4 tumors whose incidence false well within the
 5 expectations for the population as a whole and for
 6 making premature conclusions based on lack of
 appreciation of statistical method.
 8 Attempts to rely on single trauma to explain
 9 cancer depend on the exercise of primitive forms of
 10 reasoning.
 11 Did I read that correctly?
 12 MR. WATERS: Let me just object. I think it
 13 would be for me, anyway, impossible to verify how
 14 correctly you read it without following along as you
 15 read it. So I'll make that objection.
 16 A Yes, I think you've read that correctly.
 17 He's quoting someone else and referencing the source.
 18 Q Quoting F. W. Stewart; is that right?
 19 A Right. I've never heard of Stewart.
 20 Eckardt, as a corporate expert on carcinogens for Esso
 21 Oil Company, was conservative, I think, in his

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1 "QUESTION: You reported to Joe. Did you
 2 tell Joe in 1960 Joe, I'm convinced that asbestos is a
 3 health hazard?
 4 "ANSWER: Hell, yes. That's what I just got
 5 through telling you.
 6 "QUESTION: Do you know what Joe did as a
 7 result of your having given him that information?
 8 "ANSWER: Nothing.
 9 "QUESTION: Absolutely nothing?
 10 "ANSWER: No, not to my knowledge."
 11 Do you remember if you read beyond this when
 12 you gave your testimony yesterday?
 13 A No, but the record will show whether I did
 14 or not.
 15 Q Okay.
 16 "QUESTION: To your knowledge at least. All
 17 right. Did he ever tell you, Mr. Keuper or Ken, leave
 18 it alone?
 19 "ANSWER: No.
 20 "Did he ever discourage you from your
 21 research?

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1 "ANSWER: No, sir.
 2 "QUESTION: Did you ever attempt to
 3 implement any regulations or standards regarding
 4 asbestos exposure between 1959 and 1963?
 5 "ANSWER: Nothing other than the respiratory
 6 protection for all dust."
 7 Did I read that correctly?
 8 A You did.
 9 Q Thank you, sir. Now, in the outline there's
 10 a reference to Dr. Stopps' Trip report.
 11 A Okay.
 12 Q And you've had a copy -- you've had access
 13 to a copy of the Trip report; is that right?
 14 A Yes, it's here somewhere. I think I have it
 15 (indicating).
 16 Q Let me read the second paragraph, and if
 17 you'd follow and let me know if I make a mistake and
 18 read it incorrectly.
 19 From the point of view of the duPont Company
 20 as a whole -- what's the date of this Trip report,
 21 sir?

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1 A November 2, 1964.
 2 Q The main interest of the meetings was in
 3 drawing attention to the fact that asbestosis and
 4 complications of asbestosis have now been found in
 5 persons who would not in the ordinary way come to mind
 6 as being exposed to asbestos.
 7 That is to say, they do not work in asbestos
 8 mines, asbestos mills or asbestos textile factories.
 9 Did I read that correctly?
 10 A Yes.
 11 Q Then Dr. Castleman, if you'd drop down to
 12 where it's -- about the fifth line from the bottom
 13 with the sentence that begins with "X-ray."
 14 A (Whereupon, nods head affirmatively.)
 15 Q Follow me and see if I read this correctly.
 16 X-ray ranking of the degree of asbestosis
 17 present in four grades ranging from zero to three
 18 indicated that in those having zero to nine years of
 19 exposure to asbestos, 89.6 percent had no asbestosis
 20 present.
 21 Is that what that says to that point?

1 A Yes.
 2 Q While 36 percent had grade one; is that
 3 correct? Is that what that says?
 4 A That's what it says.
 5 Q And on the 94.2 percent figure it says
 6 whereas with 40 or more years of exposure 94.2 percent
 7 had grade two asbestosis and only 5.8 percent had
 8 none.
 9 Is that correct?
 10 A Yes, you read that correctly.
 11 Q And then if you would turn to the third
 12 page, the first paragraph. Follow me and tell me if I
 13 read this correctly.
 14 A report from Turner Brothers Asbestos
 15 Company, Limited -- is that Rochdale?
 16 A (Whereupon, nods head affirmatively.)
 17 Q Rochdale, England and presented by Dr. J. F.
 18 Knox showed a somewhat more optimistic story when
 19 suitable dust prevention regulations were introduced
 20 and enforced in the asbestos industry.
 21 In a mortality study of workers in an

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1 asbestos factory carried out prior to the enforcement
 2 of the British asbestos industry regulations excess
 3 mortality amongst workers employed from 20 years and
 4 upwards was observed. Lung cancer in association with
 5 asbestosis was responsible for a considerable
 6 proportion of this excess.
 7 A study of the group of workers from the
 8 same factory exposed since the regulations went into
 9 effect shows a reduction in mortality rate without an
 10 excess of lung cancer.
 11 Did I read that correctly?
 12 A You did.
 13 Q All right, sir. Does that indicate that --
 14 to you that in this attendance by Dr. Stopps at the
 15 conference on the biological effects of asbestos that
 16 there was different information from the different
 17 presenters about the significance of the, according to
 18 Dr. Stopps, new information with regard to asbestos
 19 exposure and the effect of regulation on reducing the
 20 risk of lung cancer?
 21 MR. WATERS: Objection. Compound question.

1 A Well, there were certainly different types
 2 of -- there were lots of papers presented, and they
 3 didn't all say the same thing, and they didn't -- they
 4 weren't all perfectly consistent with each other as
 5 one would expect at a scientific conference.
 6 Q All right. Now, with respect to the portion
 7 of the outline that includes Dr. Stopps' testimony
 8 from page -- pages -- let me see if I can find it. I
 9 think it's referenced as 3 -- page 347 -- I'd like to
 10 continue beyond -- I think that the -- well, let me
 11 put it in proper context.
 12 On page 347 the question is "let me ask you
 13 to turn to Exhibit 6, please. That's the November 2,
 14 1964 letter from you to Dr. D'Alonzo enclosing a copy
 15 of your Trip report as a result of a meeting held in
 16 New York.
 17 "In there you make a recommendation that
 18 employees' health should be kept track of through
 19 pulmonary function testing.
 20 "You also testified in your December
 21 deposition that to your knowledge no such program was

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1 ever established.
 2 Turning to the next page, "Doctor, am I
 3 correct that as far as you know that your suggestion,
 4 the suggestion contained within that letter regarding
 5 pulmonary function testing, was -- as far as you know
 6 no program was set up for that?
 7 "ANSWER: To the best of my knowledge that's
 8 true."
 9 Then the next question, "That's what I'm
 10 asking. Do you know why it wasn't set up?
 11 "ANSWER: No, but then I wouldn't
 12 necessarily know whether it was set up or not.
 13 "I mean, because of the disseminated nature
 14 of the organization in duPont the plant might very
 15 well have instituted it, and I would not necessarily
 16 know."
 17 You didn't have a copy of that entire thing,
 18 did you?
 19 A No, but I believe you've read it correctly.
 20 Q All right, sir. And then with respect to
 21 the citation in the outline, Exhibit 3, again

1 concerning Dr. Stopps -- and I think the reference in
 2 the outline is to page 367 -- well, I can't find the
 3 part I wanted to go into so let's go on to the next
 4 one on Dr. Stopps. I'm having trouble locating it.
 5 Do you know from your preparation of Exhibit
 6 3 if there's a reference to Dr. Stopps, a deposition,
 7 pages 429 and 430?
 8 MR. WATERS: Are you asking him if it's on
 9 the outline?
 10 MR. COTTEN: Yes.
 11 A Yeah, there's something on the outline about
 12 that.
 13 Q Yes, there it is on the second page of the
 14 outline.
 15 A Right.
 16 Q Let me read this and if you would follow
 17 along and see if I read it correctly.
 18 A Sure.
 19 Q "Is it correct that prior to attending the
 20 Academy of Sciences conference in New York it was your
 21 belief that duPont insulating employees -- people who

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1 did insulating work for the duPont Company -- were not
 2 at risk for asbestos-related disease?
 3 "ANSWER: That's not true.
 4 "QUESTION: You feel that they were at risk
 5 prior to this conference?
 6 "ANSWER: I felt like -- I felt that -- I
 7 mean, I hadn't crystallized the thought in that way at
 8 all.
 9 "I was just aware that people who worked
 10 with asbestos were exposed to asbestos dust, were at
 11 risk.
 12 "QUESTION: Am I correct that you did not
 13 perceive that insulation workers were included in that
 14 category of people being exposed to asbestos dust, in
 15 the concentrations that led to disease, prior to going
 16 that conference?
 17 "ANSWER: I can't be sure about that because
 18 information about the Selikoff studies was coming out
 19 about that time, and I really can't answer the
 20 chronology of the thing.
 21 "QUESTION: But prior to the information

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1 that you indicate was coming out about the same time
 2 as the conference, prior to seeing that in the
 3 literature, is it correct that you had not perceived
 4 duPont insulation workers as being in a category of
 5 people who were exposed to asbestos fibers in
 6 sufficient concentrations to run health risks?
 7 "ANSWER: I don't remember ever really
 8 thinking of duPont's insulation workers as a separate
 9 group.
 10 I was, as I say, one step further back than
 11 that just thinking of asbestos-exposed people.
 12 "QUESTION: And you didn't perceive --
 13 "ANSWER: I hadn't identified particular
 14 groups."
 15 Is that how that reads?
 16 A Yes.
 17 Q On the outline you also reference a November
 18 8, 1966 memo from Dr. D'Alonzo to all plant
 19 physicians.
 20 A Yes.
 21 Q Do you have that in your stack?

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1 A I have it right in front of me, yes.
 2 Q Okay, sir. On page 2 of that memo --
 3 A Whoops. I think I've got the -- this is the
 4 attachment of the Trip report, but the memo is just a
 5 transmittal memo.
 6 MR. WATERS: There's another one from '66
 7 that he's referring to, I believe.
 8 MR. COTTEN: That's correct.
 9 MR. WATERS: You should pick up the dates on
 10 the stickies.
 11 A Here it is (indicating).
 12 Q If you would look on page 2, the next to
 13 last paragraph.
 14 A Right.
 15 Q Tell me if I read this correctly.
 16 "In connection with this point, a pilot
 17 study is underway at chambers work, using equipment
 18 and tests recommended by Dr. Tomashevsky, a specialist
 19 in pulmonary function screening tests at the Ohio
 20 State University Medical Center, to determine our best
 21 plan of action.

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1 In the future definite recommendations will
 2 bc forthcoming concerning equipment tests and
 3 programs.
 4 Did I read that correctly?
 5 A You did.
 6 Q Does the outline, Exhibit Number 3, make
 7 reference to a Ken Keuper deposition concerning pages
 8 420, 425, 426?
 9 A It does, yes.
 10 Q And this is the reference in the outline
 11 that talks -- I'd like to draw your attention to the
 12 reference in the outline that says subject of asbestos
 13 hazards should be kept quiet, and then it shows the
 14 citation to this particular deposition testimony; is
 15 that right?
 16 A That's right.
 17 Q Let me read to you beginning on page 425 of
 18 that deposition that's cited in the outline beginning
 19 on line 9 -- I'm sorry, 19.
 20 "QUESTION: Sir, Keuper 32 which you have
 21 talked about in detail, and I am certainly -- I

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1 certainly am not going to rehash what has already been
 2 stated, but would you agree, sir, that this letter of
 3 December 14th, 1966, in fact implies that the subject
 4 of asbestos health hazards should be kept quiet, at
 5 that time at least?
 6 "ANSWER: -- this is Mr. Keuper -- that's a
 7 personal opinion of that individual writing the
 8 letter.
 9 "QUESTION: Yes, I know, sir. I am not
 10 meaning to suggest that that was your opinion.
 11 "That is a letter that is addressed to you;
 12 is that correct?
 13 "ANSWER: That's correct.
 14 "QUESTION: Sir, as the recipient of that
 15 letter, did you interpret that as the author's
 16 intention, that being -- that being that you should
 17 keep the subject of asbestos quiet among the workers?
 18 "ANSWER: Knowing that individual, that's
 19 his attitude, that's him.
 20 "QUESTION: That is what you interpreted him
 21 to mean by that letter he wrote to you?

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1 "ANSWER: That's right.
 2 "QUESTION: Did he want you to communicate
 3 that to the Kraft superintendents?"
 4 And there was no answer to that question.
 5 "QUESTION: Were you indicating both of them
 6 when you said knowing them?
 7 "ANSWER: No.
 8 "Which one were you talking about?
 9 "ANSWER: W. S. Briggs, PO project manager.
 10 "QUESTION: Why would you attribute that
 11 motive to Mr. Briggs?
 12 "ANSWER: That's his personality.
 13 "QUESTION: Again, I'm sorry. What was his
 14 title?
 15 "ANSWER: PO project manager.
 16 "QUESTION: Was he in a position of
 17 authority over you?
 18 "ANSWER: No.
 19 "QUESTION: Was he on an equal level with
 20 you?
 21 "ANSWER: No, he was below."

Page 651 1 And then on page 428. 2 "QUESTION: Sir, during that 1963 to 1966 3 time frame, do you have a recollection of receiving 4 any other communications, whether it was verbal or 5 written, from anyone else in the company suggesting 6 that you should keep silent about the asbestos 7 subject? 8 "ANSWER: No, sir. 9 "QUESTION: It was only Mr. Briggs? 10 "ANSWER: That's right." 11 Page 429. 12 "QUESTION: What did you interpret 13 discreetly and quietly to mean? 14 "ANSWER: He was advising Kraft 15 superintendents of the exposure of his people and what 16 the hazards were involved." 17 MR. WATERS: Let me just -- are you 18 finished with that part? 19 MR. COTTEN: Just about. Just a minute. 20 Let me see. Yes. 21 MR. WATERS: Let me just object to that last	Page 652 1 little portion because it seemed to be fragmentary and 2 didn't seem to be a complete question and answer 3 sequence. 4 MR. COTTEN: The only thing I jumped over 5 was the lawyer's discussion. 6 MR. WATERS: Well, it may have been 7 fragmentary by design. I don't know. 8 Q And did I read that correctly? 9 A Yes, you did. 10 Q And Dr. Castleman, again, on the outline, 11 Exhibit Number 3, with respect to Dr. Stopps again 12 concerning the entry under 1970 there is a reference 13 to the Stopps depo, page 215; is that right? 14 A Yes. 15 Q And if you will, follow me starting on page 16 214. 17 "Doctor, do you recall getting a copy of 18 this? 19 "ANSWER: No, I don't recall. 20 "QUESTION: The second and third pages of 21 this exhibit purport to summarize what occurred at the
Page 653 1 conference, and I want to direct your attention to the 2 heading guidelines are in the second full paragraph 3 "Guidelines are inform employees working 4 with asbestos insulation of the related health 5 problems. This should be handled without unduly 6 alarming people. 7 "QUESTION: Do you recall whether in fact 8 that this was a guideline discussed at the May 5th and 9 6th conference? 10 "ANSWER: Only in the generality that there 11 was a general agreement that, of course, the employees 12 should be informed of the hazards. 13 "This last part I can't speak to as being a 14 guideline that was sort of agreed to by everybody. 15 "QUESTION: But the first sentence of that 16 guideline -- 17 "ANSWER: The thrust of it is correct. 18 "QUESTION: It was agreed at the conference 19 that employees who were working with asbestos should 20 be informed as to the related health problems? 21 "ANSWER: Yes.	Page 654 1 "Which at this time would have included what 2 in your estimation? 3 "ANSWER: The health effects of asbestos? 4 "QUESTION: Yes. 5 "ANSWER: The fact that it could cause 6 fibrosis of the lungs, that it could cause at least 7 two different types of cancer and other less important 8 changes in the respiratory system." 9 Did I read that correctly? 10 A Yes. 11 Q With respect to the citation to Dr. Karrh 12 referring to the Karrh deposition of November 18, 1983 13 on Exhibit 3 -- 14 A Yes. 15 Q -- I'd like to read a question and answer 16 from the same deposition that you cite there in your 17 exhibit. 18 "QUESTION: Okay. Doctor, was one of the 19 purposes of your discussion at the Repauno plant to 20 enlighten the workers as to the health hazards 21 associated with asbestos exposure?"
Page 655 1 MR. WATERS: Let me just object that I think 2 it's out of context without some reference to the 3 date. 4 Maybe it's going to come up. I don't know. 5 MR. COTTEN: I apologize. Let's see if 6 there is a reference to date. You're talking about -- 7 not talking about the date of the deposition, but 8 you're talking about the -- 9 MR. WATERS: No. No. 10 MR. COTTEN: I think this talks about -- 11 they're talking about an exhibit, a letter dated March 12 29, 1973. All right? 13 MR. WATERS: Okay. 14 Q Again, reading the question, "Doctor, was 15 one of the purposes of your discussion at the Repauno 16 plant to enlighten the workers as to health hazards 17 associated with asbestos exposure? 18 "ANSWER: That was the primary purpose for 19 the discussion was to enlighten the workers as to the 20 potential health hazards and what they could do to 21 prevent or minimize those potential hazards."	Page 656 1 Did I read that correctly? 2 A Yes. 3 Q The last entry on your outline on the third 4 page of Exhibit 3 has to do with testimony from Dr. 5 Karrh's deposition of March 13th, 1987 referring to 6 Dr. Neeld; is that right? 7 A Right. 8 Q And what you say in the outline is Dr. Neeld 9 asks outside doctor to delete word "asbestos" from 10 X-ray report. 11 A Right. 12 Q That's what you've exhibited on your 13 exhibit; is that right? 14 A Right. 15 Q I'd like for you to follow along with me on 16 -- beginning on page 167 of that same deposition. 17 And the question is "you also indicate that 18 Dr. Allen's reports earlier contained a stronger 19 association with asbestos. 20 "What was it that the earlier reports from 21 Dr. Allen said, and why was it that you changed it or

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1 recommended a change in it?
 2 "ANSWER: I don't recall specifically what
 3 his report said, but the implication of his report was
 4 that anytime someone had a pleural thickening or a
 5 change in the X-ray, that this was without even
 6 investigating the workplace exposure, that it was
 7 indicative of an asbestos-related change, because we
 8 had asked Dr. Allen specifically to look for
 9 asbestos-related changes. He had taken our request
 10 quite seriously.
 11 "Anytime he saw a change on X-ray he would
 12 put down it was asbestos related.
 13 "I talked with him and asked him unless he
 14 was sure that it was an asbestos-related change to not
 15 put it down, that it definitely was until we had had a
 16 chance to go over the work history and make sure that
 17 the person had had a potential for exposure to
 18 asbestos, unless he was absolutely sure that nothing
 19 else could have caused it other than asbestos
 20 exposure.
 21 "He agreed that he could not be that

1 specific on an X-ray, and it was appropriate to look
 2 at the exposure history before a definite X-ray
 3 diagnosis was made.
 4 "Then between the two of us we worked out
 5 the language that you see on the stamp. I suggested
 6 the language and Dr. Allen and his associates agreed
 7 with it.
 8 "He particularly wanted to put in the report
 9 that there was a potential that the changes that were
 10 being seen could be caused by asbestos because we
 11 wanted the plant's physicians to know that they had to
 12 go back and evaluate the employee's work record and
 13 exposure record to be in a position to determine
 14 whether or not the changes could be due to asbestos "
 15 Did I read that correctly?
 16 MR. WATERS: Let me just raise an objection
 17 because I think what you've done is you've read a
 18 portion of the deposition that is totally unrelated to
 19 the portions of the deposition he's referring to in
 20 his outline.
 21 He's referring to testimony from Dr. Karrh

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1 discussing what Dr. Neeld did, and what you just
 2 read -- maybe I missed it, but I didn't hear any
 3 reference to Dr. Neeld.
 4 It's possible I missed it though because
 5 it's been a long day.
 6 MR. COTTEN: Let me see if I can -- let me
 7 see if I can clear that up.
 8 MR. WATERS: If you want to do that, then
 9 I'll look and see if I can give you a specific page
 10 reference.
 11 MR. COTTEN: Right. There's not one on the
 12 outline.
 13 MR. WATERS: I understand. I may have one.
 14 Q And this is the explanation behind that.
 15 On page 164 -- and please see that I read it
 16 correctly.
 17 "QUESTION: Do you know why Dr. Neeld sent
 18 this letter to or in care of B. A. Brown?
 19 "ANSWER: Dr. Neeld had a concern because
 20 Dr. Allen's report on the chest X-rays, where he saw
 21 some abnormality that could be suggestive of changes

1 due to asbestos, Dr. Neeld was concerned that putting
 2 the word asbestos in there could raise a concern among
 3 employees, and he was asking Dr. Allen to consider
 4 deleting that word asbestos out of the report that he
 5 prepared on the X-ray reports."
 6 MR. WATERS: That's the reference.
 7 MR. COTTEN: So you see, you put that in
 8 context with what I read earlier about why there was a
 9 discussion with Dr. Allen about this question to begin
 10 with.
 11 That's why I was reading those portions.
 12 MR. WATERS: Well, except I mean --
 13 MR. COTTEN: It all ties together.
 14 MR. WATERS: The only problem I have with
 15 that is if you read all the way through page 170
 16 you'll see that Karrh says that the reason that was
 17 done was so -- was that he could tell the patient
 18 himself, which is of course a different color, but
 19 with that editorial comment I'll leave it alone.
 20 That's neither here nor there I guess for the time
 21 being.

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1 MR. COTTEN: I don't mind putting that
 2 portion on. I think I know where you're talking
 3 about. On page 170 he says so that's why I wanted it
 4 on the report.
 5 Dr. Neeld preferred it not on the report
 6 because he wanted to be the one to tell the employee
 7 or patient himself and not have a report do it.
 8 Is that what you're referring to?
 9 MR. WATERS: Off the record I am curious how
 10 he came up with that rationale but --
 11 Q And just very quickly, do you make
 12 reference to an April 5, 1968 memo from Ken Keuper?
 13 A Yes.
 14 Q On the letterhead of the engineering
 15 department for duPont?
 16 A Yes.
 17 Q Do you see on the first page of that memo
 18 that it shows that the memo went to R. H. Davis at
 19 Kinston?
 20 A I'm sorry. Can you just hand it to me.
 21 Q Yes, sir. See right here (indicating)?

1 (Whereupon, document tendered to the
 2 witness.)
 3 A Right.
 4 Q Dr. Castleman, the next to last entry on
 5 your outline, Exhibit 3, there is a -- you state in
 6 the outline duPont safety engineering standard
 7 confirms asbestosis and lung cancer have long been
 8 associated with exposure to asbestos.
 9 Dr. Castleman, are you attempting to imply
 10 that because that statement is contained in the safety
 11 engineering standard that was issued in April of 1973,
 12 that that indicates that duPont is saying that they
 13 knew that asbestosis and lung cancer have long been
 14 associated with exposure to asbestos?
 15 MR. WATERS: well, let me just object that I
 16 think the document speaks for itself.
 17 I mean, the quote says what it says. I
 18 don't think he's attempting to imply anything.
 19 MR. COTTEN: I'm just asking him.
 20 MR. WATERS: well, then I think the question
 21 is argumentative as stated. Maybe you can ask him if

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1 he interprets it that way. That would be more
2 appropriate.

3 Q Do you interpret it that way?

4 MR. WATERS: Do you want to take a look at
5 it?

6 Q It's just under general there (indicating).

7 A Right. Well, the only two ways you can
8 interpret it is that duPont knew about the hazards of
9 asbestos as they were published or duPont found out
10 about them sometime after the literature was
11 disclosed.

12 Q All right, sir. Thank you.

13 Now, with respect to the safety engineering
14 standard S4T, are you familiar with this standard?

15 MR. WATERS: In some particulars?

16 Q Just have you made yourself familiar with
17 this standard in that it is part of your duPont
18 collection?

19 A I've looked through it but, you know, I'm
20 not sure what you mean by made myself familiar with
21 the standard as to its application and so on.

1 Q Are you familiar that this standard
2 incorporates the requirements of OSHA as published in
3 the Federal Register?

4 A I believe I saw that, yes. Obviously, they
5 had legal obligations by 1973 under OSHA.

6 Q And do you know whether any of these
7 standards that are published in this April 1973 safety
8 engineering standard go over and above those measures
9 as required by OSHA?

10 A Let me have a look at it, and I'll see what
11 I can do about that.

12 Q You don't know independent of taking a fresh
13 look at it?

14 A Well, I've never looked at it with that
15 question in mind.

16 Q All right.

17 A That does seem to -- well, it certainly
18 contains texts that doesn't appear in the OSHA
19 standards, but it talks about handling asbestos
20 insulation and asbestos cutting operations which would
21 have been dealt with under the provisions of the

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1 standard.

2 Most of this stuff appears to be stuff that
3 would have been required either explicitly or
4 implicitly by the OSHA standard.

5 Q Do you know whether duPont had a engineering
6 standard, published engineering standard of the duPont
7 Company that was in place prior to the S4T Standard?

8 A You mean prior to OSHA or prior to 1972?

9 Q Yes, sir.

10 A I don't know as to asbestos.

11 Q All right, sir. Dr. Castleman, you
12 produced for us today documents that we -- or that I
13 asked you to go back and look for and that were
14 touched upon in the subpoena that was served on you,
15 and you were kind enough to bring documents for us
16 this morning.

17 Do you have those, the ones he --

18 MR. WATERS: I think that's what's in her

19 lap.

20 MR. COTTEN: Okay.

21 Q What I would like to do is arrange with the

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1 any question.

2 I want to somehow have them identified so
3 that when we come back and finish the deposition there
4 won't be any question that it was a document that he
5 provided to us.

6 MR. WATERS: I think it's -- I mean, I may
7 be wrong, but I think it's abundantly clear from each
8 and every document either being from him or to him.

9 I just -- I don't -- what I'm concerned
10 about is this is kind of extraneous stuff. I kind of
11 doubt if there's going to be anything of great
12 significance there and I hate to burden the exhibits
13 that are marked as exhibits and that are going to be
14 attached with an extra, you know, inch or two of
15 materials.

16 It's certainly fine for ya'll to -- for her
17 to make copies and everybody get copies who wants
18 them, but I don't want a copy, and I don't -- I mean
19 unless there's some other reason.

20 If you need them to prove them up or
21 something you can do that down the road.

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1 Court Reporter to have these documents copied and the
2 originals returned to you --

3 A Fine.

4 Q -- so that they can be a part of this
5 deposition. Do we need to have them marked as a
6 group?

7 MR. BEVEL: I think that we should
8 identify -- I believe there's two sets of documents.

9 The first document is a list of the doctor's
10 trial testimony or collaboration of his trial
11 testimony, and then the remainder of documents I
12 believe are documents he produced in response to the
13 question requesting correspondence to and from
14 plaintiff's attorneys. And so I think they need to be
15 separately marked. And then for the record all of the
16 sticky notes are mine, so I need to take them off
17 obviously before I get them back.

18 MR. WATERS: Do they need to be made a part
19 of the record? I mean, if ya'll want copies of them I
20 don't mind that we --

21 MR. BEVEL: I just don't want there to be

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1 MR. BEVEL: I just need to make sure that
2 there's not going to be a dispute. We need to make
3 some arrangements that there's not going to be a
4 dispute that we got them from him.

5 MR. VOGLER: I do think it would be easier
6 to have them attached to the deposition.

7 I cannot think of a more convenient, useful
8 way to do it even recognizing a desire not to have a
9 pile of things that big.

10 I can't think of a good alternative.

11 MR. BEVEL: And then, Andy, when you order
12 the deposition just say excluding Exhibit Number
13 whatever it is, 1600. All right. Let's do that then.
14 I don't want those exhibits.

15 MR. COTTEN: I want the originals returned
16 to Dr. Castleman after the --

17 THE VIDEOGRAPHER: Do you want to go off the
18 record for a moment?

19 MR. VOGLER: Yes.

20 MR. WATERS: Yes.

21 THE VIDEOGRAPHER: We're going to go off the

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1 record at 5:07 p.m.
 2 (Whereupon, discussion off the record.)
 3 (Whereupon, a brief recess was taken -- 5:06
 4 p.m.)

(Whereupon, after recess -- 5:08 p.m.)

THE VIDEOGRAPHER: 5:09 p.m. We're back on
 7 the record.

8 BY MR. COTTEN:

9 Q Dr. Castleman -- and I'm just going to ask
 10 you about your understanding from a medical and
 11 scientific viewpoint and not asking you to call upon
 12 any expertise outside of just your general
 13 understanding about this.

14 But is it -- was it medically feasible to
 15 your understanding in the 1950s for physicians to make
 16 a determination that if a person was employed in a
 17 facility in which there was asbestos insulation
 18 products, what the probability would be that that
 19 person would down the line sometime be -- develop
 20 health problem associated with exposure to
 21 asbestos?

1 A I think the physician would need more
 2 information than just the fact that the person worked
 3 at a facility where asbestos material was present.

4 Q What types of information would the
 5 physician need to know?

6 MR. WATERS: In order to establish a
 7 specific probability as in a number?

8 MR. COTTEN: To make a determination as to
 9 what risk that person was running by being in that
 10 facility in which there were asbestos insulation
 11 products.

12 A Basically the doctor would want to know how
 13 much dust the person was exposed to in the course of
 14 his work.

15 Q Over what period of time?

16 A Over what period of time and, you know, what
 17 sorts of peak exposures occurred, how long were they,
 18 what sort of more continuous exposures occurred, how
 19 long were they.

20 Q In the 1950s armed with that information and
 21 let's say at the beginning of this individual's

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1 employment forecasting what types of activities he
 2 would be involved in, do you have any understanding
 3 about how accurate a physician could predict that a
 4 person was going to develop an asbestos-related health
 5 problem?

6 A I think it would have been difficult to make
 7 very accurate predictions from what was known in the
 8 1950s, although I think that, you know, you could
 9 certainly anticipate a definite risk and especially
 10 for groups which had been repeatedly reported as
 11 having developed asbestos disease in the literature.

12 Q Could the physician in the 1950s, with all
 13 of the information that he would need about the
 14 employee and the exposures, be certain as to what
 15 would happen to that employee?

16 A You can never be certain about an
 17 individual. You know, you can have -- well, you just
 18 can't be certain about an individual.

19 There's variability in human response to
 20 given provocations, and as Selikoff reported 94
 21 percent of the workers who were still living 40 years

1 after starting to do insulation work had developed
 2 asbestosis.

3 There were five percent that didn't, but
 4 there's no way of knowing in the beginning --

5 Q And in order to --

6 A -- whether you're going to be the one out of
 7 the 20 that doesn't get asbestos assuming you don't
 8 die of an asbestos-related disease or something else
 9 first.

10 Q And Dr. Selikoff didn't know what the
 11 percentages were going to be until these people had
 12 reached the time where they'd had 40 years of
 13 exposure.

14 This was an after-the-fact determination; is
 15 that right?

16 A Well, that's the only way you can determine
 17 these things the first time around. And Selikoff was
 18 doing quantitative evaluations of these risks at
 19 different decades of exposure.

20 There had been earlier work published
 21 showing high risk of asbestosis among people with 20

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1 years or more in the insulation trade.

2 MR. COTTEN: All right, sir. Thank you.
 3 I'll pass the witness.

4 MR. WATERS: Well, I know you have some
 5 questions you want to ask about because we just talked
 6 about that. Maybe the thing to do is go ahead and do
 7 that and get that behind us.

8 MR. BEVEL: Just the questions regarding --

9 MR. WATERS: The documents.

10 MR. BEVEL: -- the documents?

11 MR. WATERS: Yeah.

12 THE VIDEOGRAPHER: Microphone, please.

13 MR. BEVEL: I can do that. It's just a few
 14 questions.

15 EXAMINATION

16 BY MR. BEVEL:

17 Q Dr. Castleman, with regard to the
 18 correspondence documents that you brought for us
 today, I've had a chance to look through those during
 the course of the deposition today, and I noticed that
 21 there's no documents in there from major law firms

1 that regularly represent plaintiffs in asbestos
 2 litigation such as Baron & Budd from Dallas, Texas;
 3 Ness Motley from South Carolina, Leonard Jacques.

4 There's a number of law firms that I don't
 5 see any correspondence at all there over a period of
 6 two or three years up until the present date, and I
 7 was wondering if your organization system in your
 8 office might have additional documents responsive to
 9 the request, the subpoena duces tecum.

10 A Well, first of all, I don't think -- the
 11 answer is yes.

12 The reason I don't have correspondence from
 13 Motley's office is because I had almost no contact
 14 with him over the past five or ten years.

15 Q How about with Baron & Budd?

16 A Baron & Budd, the only things I get from
 17 Baron & Budd are copies of corporate documents and
 18 exhibits with transmittal letters.

19 I throw the transmittal letters out, and if
 20 the documents are worth keeping I keep them and file
 21 them with the appropriate places of the companies that

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1 they address.
 2 Q And then there are some cases -- for
 3 instance, you mentioned in the direct examination on
 4 the very first day of this deposition working on a
 5 case for Chase Manhattan, and I notice that there was
 6 no correspondence to and from the attorney
 7 representing Chase Manhattan who presumably --
 8 A (Whereupon, nods head affirmatively.)
 9 Q -- retained you and retained your services
 10 as an expert witness in that case, and I was wondering
 11 if perhaps in your office under a separate
 12 organizational system there may be a, quote, Chase
 13 Manhattan file that might have correspondence to and
 14 from that Chase Manhattan attorney.
 15 A No, there isn't. I just haven't -- I
 16 haven't any purpose in keeping a correspondence file
 17 for Chase Manhattan. Chase Manhattan was involved in
 18 a case involving the Turner & Newall Company.
 19 To the extent that stuff in the boxes of
 20 documents that Chase Manhattan sent me along with
 21 their letters of transmittal, to the extent that those

1 boxes of documents had something of interest to me, I
 2 kept it and filed it someplace under Turner & Newall,
 3 but the transmittal letters or whatever letters I got
 4 from Chase had no value to me at all, and I would just
 5 throw them out.
 6 Q And then, finally, I notice that in those
 7 documents, primarily they're documents from attorneys
 8 or from different organizations to you.
 9 Lots of times there's references to
 10 documents or correspondence that you have sent to
 11 them, but there is no -- inside the file there isn't
 12 the referenced documents.
 13 So sometimes there's documents or copies of
 14 documents that are correspondence that you generated,
 15 but it seems very sparse. And my question is if you
 16 write a letter to an attorney do you not keep a copy
 17 of that letter?
 18 A Very often I don't. Very often they're
 19 handwritten notes.
 20 Again, what I send the lawyers is --
 21 whatever I send them of value is probably what goes

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1 with the letter, not the letter itself, but I don't
 2 have any purpose in keeping these letters unless I
 3 do.
 4 If I keep them I keep them, otherwise I just
 5 send them a handwritten note or I might type them a
 6 note and send them that and I keep a copy.
 7 Unless I have some purpose in keeping it I
 8 don't want to crowd myself out of my home with a bunch
 9 of documents that I have no purpose to keep.
 10 Q Let me ask you this. When we asked
 11 yesterday for you to bring documents responsive to the
 12 subpoena duces tecum regarding correspondence to and
 13 from unions or asbestos organizations or attorneys
 14 representing parties in asbestos litigation, and you
 15 went home last night, was there a file cabinet that
 16 you opened and a file that was a reading file or was
 17 this an effort just to merely pick up what you could
 18 find laying around the office?
 19 Where did you collect the documents that you
 20 handed to us today?
 21 A It's a correspondence file. It's an

1 asbestos litigation correspondence file.
 2 Q Okay. Do you have any other types of
 3 correspondence files in that -- with a different
 4 header other than asbestos litigation correspondence
 5 files?
 6 A Well, I have general correspondence, I have
 7 correspondence on other subjects that have nothing to
 8 do with the asbestos litigation, yes, but they really
 9 are totally separate activities.
 10 Q Do you have correspondence to and from your
 11 book publisher --
 12 A Well --
 13 Q -- regarding your book that says Asbestos?
 14 A Right. I have some documents that I have
 15 from the publisher, yes. I mean, these are basically,
 16 you know, royalty payments and other kinds of letters
 17 that accompanied those things.
 18 Q Do you have a correspondence file that's
 19 specifically to and from unions?
 20 A No.
 21 Q Do you have a correspondence file to and

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1 from the White Lung Association?
 2 A No.
 3 Q Do you have correspondence files relating to
 4 your activities in other continents regarding
 5 asbestos, not litigation per se, but asbestos?
 6 A Yes. I mean, I have files on international
 7 activities having to do with asbestos.
 8 MR. WATERS: I think we talked about that in
 9 the context of the NGOs yesterday.
 10 MR. BEVEL: I missed it.
 11 MR. WATERS: He was asked about materials
 12 pertaining to his work with nongovernmental
 13 organizations.
 14 Do you remember that yesterday?
 15 MR. BEVEL: I don't.
 16 A I mean, I do have other types of
 17 correspondence that's got nothing to do with asbestos
 18 litigation.
 19 It's scattered around in various type
 20 files. It has nothing to do with my opinions, has
 21 nothing to do with these cases.

1 Q Do you keep files related to other experts
 2 in asbestos litigation --
 3 A No.
 4 Q -- correspondence to and from other experts?
 5 A No.
 6 Q So you wouldn't have a file on David
 7 Egilman, correspondence to and from David Egilman?
 8 A No. I do understand David Egilman publishes
 9 everything he has on the Internet.
 10 Q My next question is do you have an E-mail
 11 address?
 12 A Yes.
 13 Q Okay.
 14 MR. WATERS: But you can't have it.
 15 Q Yeah. In your computer at home do you have
 16 a -- do you E-mail to and from attorneys regarding
 17 asbestos litigation?
 18 A Not so far, and I don't think I will. I'd
 19 rather keep you guys out of that. I'd like to have
 20 some privacy somewhere in my life.
 21 Q And do you E-mail to and from David

1 Egilman?
 2 Have you ever received E-mail from David
 3 Egilman regarding asbestos litigation?
 4 A No, his stuff generally comes by Fax. I
 5 don't think I even have his E-mail address.
 6 Q I didn't notice in the correspondence that
 7 you gave us any faxes from David Egilman.
 8 A No, they're corporate documents. They might
 9 be in the W.R. Grace file, or they might be just
 10 thrown out. I don't know. I get all kinds of things
 11 from Egilman.
 12 Q Have you ever availed yourself of his web
 13 site?
 14 Have you ever gone and looked at his web
 15 site?
 16 A Not yet.
 17 Q Do you have a corporate file that relates to
 18 the Sarah Lee Corporation?
 19 A No.
 20 Q Do you have a corporate file that relates to
 21 the Haines Netware Corporation?

1 A No.
 2 Q Or any of the Haines manufacturing
 3 facilities?
 4 A No, I have no documents for any of those
 5 entities relating to asbestos hazards or industrial
 6 hazards.
 7 MR. BEVEL: I mean, that's the substance of
 8 the questions I have just regarding the production,
 9 but I have obviously a day's worth of questions
 10 regarding the case.
 11 MR. WATERS: Okay. Well, I think it's time
 12 to take a recess.
 13 THE VIDEOGRAPHER: This deposition is
 14 concluded and not over.
 15 We're going off the record at 5:44 p.m.,
 16 January 30th, 1997.
 17 (Thereupon, at 5:44 p.m., the videotaped
 18 deposition was adjourned.)
 19
 20
 21

1 State of Maryland
 2 City of Baltimore
 3 I, Sharon D. Livingston, a Notary Public of
 4 the State of Maryland, City of Baltimore, do hereby
 5 certify that the within-named witness personally
 6 appeared before me at the time and place herein set
 7 out, and after having been first duly sworn by me,
 8 according to law, was examined by counsel.
 9 I further certify that the examination was
 10 recorded stenographically by me and this transcript is
 11 a true record of the proceedings.
 12 I further certify that I am not of counsel
 13 to any of the parties, nor an employee of counsel, nor
 14 related to any of the parties, nor in any way
 15 interested in the outcome of the action.
 16 As witness my hand and seal this 11th day of
 17 February, 1997.

18 Sharon D. Livingston
 19 My Commission Expires 10-28-98
 20
 21

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 3 January 30, 1997
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