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Deposition of Barry Castleman

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9:59 a.m.

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24 Adam D. Miller, Registered Professional Reporter

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9 On Behalf of Reichhold Chemical, Inc.:

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15 INDEX

16 BY MR. McCAULEY: 3

17 BY MR. CRUMPLAR: 79

18 BY MR. McCAULEY: 86

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22

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1 BARRY I. CASTLEMAN, Sc.D., having
2 first been duly sworn according to law, was examined
3 and testified as follows:

4 MR. CRUMPLAR: Let me just say one
5 thing real quick before we start questioning
6 Dr. Castleman. He has been deposed innumerable times
7 in Delaware and around the country. I defended a
8 deposition of him in Delaware, August 2nd, 2010. I
9 think there's been Delaware depositions since then.
10 He's updated his CV.

11 I know that under Delaware rules,
12 you're obligated to review prior depositions of
13 Dr. Castleman so we do not have duplication. I would
14 hope that there will be very minimal questions as to
15 his qualifications because those have been covered
16 many times, maybe a brief update in terms of since
17 his last deposition.

18 His general state-of-the-art opinion
19 has been covered many times. We're producing him so
20 that you can ask him about specific questions
21 regarding Reichhold. So...

22 (Discussion held off the record.)

23 BY MR. McCAULEY:

24 Q. You heard that preliminary statement, did

1 you not?

2 A. Sure.

3 Q. In January of 2011, you testified that you
4 have no information or opinions on Reichhold
5 Chemical, Inc.; true?

6 MR. CRUMPLAR: Objection to form. I
7 don't think that's exactly what he said. If you can
8 read the answer, I think it would be better.

9 THE WITNESS: Well, the testimony is
10 whatever it is, and I stand by it.

11 BY MR. McCAULEY:

12 Q. Do you believe that you've ever given a
13 deposition where you've expressed any opinions about
14 Reichhold Chemical, Inc.?

15 A. Well, I said they're a chemical company,
16 and chemical companies are in the business of
17 handling toxic substances and presumably employ folks
18 who have some expertise in the field of occupational
19 health. I imagine I've said that in the past. But
20 as to specific documentation on Reichhold, I don't
21 think I have cited anything.

22 MR. McCAULEY: Object to
23 responsiveness.

24 BY MR. McCAULEY:

1 Q. You do not believe that you've ever
2 previously given a deposition in which you've
3 specifically expressed any opinions about Reichhold;
4 true?

5 A. Well, I don't think anything beyond what I
6 just said; right.

7 Q. Would you be able to tell me the name of
8 any case in which you've ever previously expressed
9 any opinions about Reichhold?

10 A. No. I don't remember these depositions
11 and trials. I had 78 depositions last year.

12 Q. Do you remember how many trials you had
13 last year?

14 A. Around 25 to 30.

15 Q. And you, in your book where you discuss
16 corporations and their knowledge and use of asbestos,
17 you do not mention Reichhold in any version of your
18 book, do you?

19 A. I do not.

20 Q. I have been provided with some documents
21 that it has been represented to me that you have
22 reviewed relating specifically to Reichhold. Did you
23 receive some documents for these cases in which
24 you've been retained?

1 A. Yes, sir.

2 Q. And from whom did you receive those,
3 plaintiff's counsel?

4 A. Mr. Crumplar; yes.

5 Q. And when did Mr. Crumplar send you
6 documents specific to Reichhold?

7 A. I talked to him about that yesterday
8 evening.

9 Q. And did you receive the documents for the
10 first time yesterday evening?

11 A. Well, some of this material I had seen
12 before. But it was assembled and presented to me
13 yesterday evening by Mr. Crumplar.

14 Q. Did you meet with him in person?

15 A. Yes, I did.

16 Q. Where are you today?

17 A. I'm in a hotel room in Delaware.

18 MR. CRUMPLAR: Let me say I'm in my
19 office in Delaware.

20 BY MR. McCAULEY:

21 Q. Where did you meet with Mr. Crumplar last
22 night?

23 A. At a restaurant. We had dinner.

24 Q. And for how long did you meet?

1 A. Well, two to three hours.

2 Q. Did you review some documents over dinner?

3 A. I did.

4 Q. And were these documents that Mr. Crumplar
5 brought with him?

6 A. They were.

7 Q. And you didn't have -- before Mr. Crumplar
8 gave them to you, you did not have any documents that
9 were specific to Reichhold, did you?

10 A. No. Well, I did not have any internal
11 corporate documents of Reichhold; that's for sure.

12 Q. And you've reviewed documents relating to
13 Union Carbide in the past; right?

14 A. Yes, I have.

15 Q. You discuss Union Carbide in your book;
16 correct?

17 A. Right. That's right.

18 Q. And do you recall any of your, the Union
19 Carbide documents that you reviewed mentioning
20 Reichhold?

21 A. I don't.

22 Q. Do you know how Mr. Crumplar went about
23 selecting the documents that he showed you last night
24 at dinner?

1 A. Well, two to three hours.

2 Q. Did you review some documents over dinner?

3 A. I did.

4 Q. And were these documents that Mr. Crumplar
5 brought with him?

6 A. They were.

7 Q. And you didn't have -- before Mr. Crumplar
8 gave them to you, you did not have any documents that
9 were specific to Reichhold, did you?

10 A. No. Well, I did not have any internal
11 corporate documents of Reichhold; that's for sure.

12 Q. And you've reviewed documents relating to
13 Union Carbide in the past; right?

14 A. Yes, I have.

15 Q. You discuss Union Carbide in your book;
16 correct?

17 A. Right. That's right.

18 Q. And do you recall any of your, the Union
19 Carbide documents that you reviewed mentioning
20 Reichhold?

21 A. I don't.

22 Q. Do you know how Mr. Crumplar went about
23 selecting the documents that he showed you last night
24 at dinner?

1 A. No, I don't.

2 Q. Did he make any representations to you at
3 all about how complete a set of documents he showed
4 you last night?

5 A. No. I mean, obviously they're -- the
6 internal corporate documents certainly leave a lot to
7 be desired in terms of completeness.

8 MR. CRUMPLAR: Let me just say if you
9 wish to give Dr. Castleman documents that you think
10 will add to the completeness, Dr. Castleman is
11 delighted to have documents from defense counsel. In
12 fact, in his book he acknowledges the help of defense
13 counsel. So as a scientist and a scholar, he'll
14 welcome the truth from all sources.

15 THE WITNESS: That's true.

16 MR. McCAULEY: Object to the sidebar.

17 BY MR. McCAULEY:

18 Q. In the materials that -- how many
19 documents did Mr. Crumplar present you with at dinner
20 last night?

21 A. I don't know. But the accumulation of
22 documents is about an inch thick, including about a
23 half-inch is just one photocopied issue of a Chemical
24 Week trade journal from 1966. So that's generally

1 the description, I guess, I can give you.

2 Q. After looking at these documents and
3 meeting with Mr. Crumplar last night, did you form
4 any opinions about Reichhold?

5 A. Well, certainly some additional
6 information available through the corporate documents
7 that I suppose would add definition to whatever
8 opinions I expressed in the past; yes.

9 Q. Before your meeting with Mr. Crumplar last
10 night, had you ever discussed with anyone from
11 Jacobs & Crumplar what your specific opinions or
12 whether you had any specific opinions regarding
13 Reichhold?

14 A. Well, I might have just given Mr. Crumplar
15 my, you know, "they were a member of the chemical
16 industry" opinion, but nothing beyond that.

17 Q. But in terms of any specific products that
18 they made, before last night did you know what
19 products Reichhold may have made that contained
20 asbestos?

21 A. I don't think I did.

22 Q. And did you review any formulations for
23 any Reichhold products that may have contained
24 asbestos?

1 A. Well, I've seen -- and some of the
2 documents refer to the percent asbestos in the
3 granulated resin as being 51 or 52 percent.

4 Q. Are you talking about the material safety
5 data sheet?

6 A. That might be one of the documents that
7 does that; yes.

8 Q. Do you know what the product is that
9 Reichhold manufactured that contained asbestos that's
10 allegedly involved in this case?

11 A. Yes. A phenolic resin that was about
12 50 percent, 51, 52 percent asbestos.

13 Q. Other than the material safety data
14 sheet -- first of all, do you have any documentation
15 about where the material safety data sheet came from,
16 the one that you reviewed?

17 A. Nothing beyond whatever it says on the
18 face of the document itself.

19 Q. Have you seen any, what you believe to be
20 any documentation that Square D ever purchased
21 phenolic molding compounds from Reichhold?

22 A. No, I'm not testifying about product
23 identification. Other witnesses will do that.

24 Q. Of the grades of phenolic molding

1 compounds that Reichhold manufactured, do you know
2 how many of those grades contained any asbestos at
3 all?

4 A. No, I don't.

5 Q. Are you familiar with the NIOSH definition
6 for asbestos-containing product that was published in
7 the 1970s?

8 A. I don't know what you're referring to.

9 Q. Are you aware of NIOSH publications that
10 state that products with less than 5 percent asbestos
11 are not considered asbestos products at all?

12 A. No, I'm not aware of that.

13 Q. Are you aware of any statement by OSHA in
14 the 1970s that a product that contains less than
15 5 percent asbestos is not considered an
16 asbestos-containing product?

17 A. No, I'm not aware of any such statement.

18 Q. Are you aware of any such statement
19 regarding products that contained less than 2 percent
20 asbestos, from OSHA or NIOSH?

21 A. No, I'm not.

22 Q. How about 1 percent asbestos?

23 A. No. I can't recall any statements from
24 either of those agencies that would draw such a line

1 and indicate that products with less asbestos in them
2 than 1 percent or whatever are harmless or not
3 counted as asbestos products.

4 Q. Are you familiar with any of the other
5 ingredients that were in any of the phenolic molding
6 compounds that contained asbestos made by Reichhold?

7 A. Well, it looks from one of these documents
8 like vinyl chloride might be involved, but it's not
9 clear from the document whether that's the case.

10 Q. Have you previously reviewed any materials
11 relating to -- well, first of all, are you familiar
12 with the Square D company?

13 A. Just the least bit.

14 Q. Do you know who their successor is that's
15 still in business?

16 A. No, I don't.

17 Q. Have you ever heard of Schneider Electric?

18 A. It may have come up in some deposition or
19 trial. I don't -- not in a trial. Probably in a
20 deposition. But I don't really remember; it's kind
21 of a blur.

22 Q. You're generally aware that Square D in
23 the 1960s, '70s, and '80s manufactured electronic
24 components, things like switch boxes; correct?

1 A. So I understand, yes.

2 Q. And you're aware that the plaintiffs in
3 the case worked at a Square D facility in Cedar
4 Rapids, Iowa?

5 A. Yes.

6 Q. And that facility would have been subject
7 to OSHA regulations as of 1971; right?

8 A. I would think so, yes.

9 Q. Your opinion would be that if they were an
10 employer using asbestos-containing products, then
11 they had reason to know about potential hazards
12 associated with asbestos from back in the 1950s;
13 correct?

14 MR. CRUMPLAR: He's speaking about
15 Square D; right?

16 MR. McCAULEY: Yes.

17 MR. CRUMPLAR: Okay.

18 THE WITNESS: I guess it depends on
19 whether they were informed that the -- that the resin
20 contained asbestos. I don't know -- I mean, if they
21 were just sold a resin that met certain physical
22 criteria and they were not told about the composition
23 of the resin for proprietary reasons or something
24 like that, then I can imagine -- although I wouldn't

1 expect that this was the case -- I can imagine
2 circumstances under which they received an
3 asbestos-containing product but didn't know it
4 contained asbestos.

5 I'm just saying this to be careful
6 because there were a lot of asbestos-containing
7 products that were marketed without any effort to
8 advise, disclose, or warn people about the presence
9 of the asbestos.

10 BY MR. McCAULEY:

11 Q. It would be your opinion that an employer
12 using raw materials to manufacture a product need not
13 figure out what is in those raw materials?

14 A. Well, I would think that usually companies
15 would want to know about these things. But there
16 were an awful lot of products that were sold under
17 trade names. And there was a whole lot of business
18 confidential, so-called trade-secret type of reasons
19 for the sellers of some of these materials to be less
20 than total in their disclosure of what these products
21 they were selling contained.

22 I just don't know. As I'm trying to
23 answer your questions, I'm thinking, well, I've never
24 seen any Square D documents. I've never seen



1 documents that confirm that Square D knew that, say
2 in the case of Reichhold, the resin they were using
3 contained asbestos. Maybe they were told about this.
4 Maybe it was freely disclosed at the time. It may
5 well have been. I just don't know.

6 Q. Well, as of 1971, OSHA imposed a federal
7 obligation on employers to figure out whether their
8 employees were exposed to asbestos; right?

9 A. Well, it imposed an obligation for them to
10 protect their employees if they were exposed to
11 asbestos, and so I suppose there was an implied
12 obligation to find out if their employees were
13 exposed to asbestos.

14 But, you know, in the case of, for
15 example, joint compounds that were sold to
16 construction companies that were using -- that were
17 building homes. These joint compounds were sold
18 without any disclosure that the products contained
19 asbestos or that they were dangerous in, say, 1971.

20 And it's a little hard for me to see,
21 you know, how the OSHA regulations were supposed to
22 have been applied by the construction contractors
23 receiving those products who were not told about the
24 presence of asbestos in them and who didn't have

1 any -- many -- most of these companies didn't have
2 any special expertise in occupational safety and
3 health in terms of employing safety men, industrial
4 hygienists, and company doctors who knew something
5 about occupational diseases.

6 MR. McCAULEY: Object to
7 responsiveness.

8 BY MR. McCAULEY:

9 Q. Square D wasn't a construction contractor,
10 were they?

11 A. No, they weren't.

12 Q. They were a manufacturer of electrical
13 components; right?

14 A. Right.

15 Q. And phenolic molding compounds were a raw
16 material used by a manufacturer in a manufacturing
17 facility; correct?

18 A. Right.

19 Q. Have you reviewed any information from
20 Square D at all -- let's take it this way: Any
21 Square D documents, have you reviewed any of those
22 for this case?

23 A. No, I haven't.

24 Q. Have you reviewed any deposition testimony



1 from any person most knowledgeable or corporate
2 representative of Square D?

3 A. No, I haven't.

4 Q. Are you aware of the various companies
5 that sold Square D phenolic molding compounds other
6 than, allegedly, Reichhold?

7 A. I have been told there were about five
8 other suppliers of this kind of resin material.

9 Q. Who told you there were five other
10 suppliers?

11 A. Mr. Crumplar.

12 Q. Did Mr. Crumplar tell you how many other
13 suppliers that were allegedly supplied phenolic
14 molding compounds to -- let me withdraw that.

15 Were you shown any documents about who
16 plaintiffs claim were the suppliers of phenolic
17 molding compounds to this facility or just told by
18 Mr. Crumplar?

19 A. I can't remember if that was covered in
20 any of those documents or not.

21 Q. You reviewed -- you're familiar with a
22 company that used to be called Durez, now Occidental
23 Chemical, aren't you?

24 A. I've come across them in other cases.

1 Q. Do you know they that manufactured
2 phenolic molding compounds too?

3 A. I believe I have heard that.

4 Q. Have you reviewed any documents that
5 relate to Durez and the phenolic molding compounds
6 they made?

7 A. I just can't remember whether I've seen
8 any documents on Durez or not.

9 Q. What about the Rogers Corporation; are you
10 familiar with them?

11 A. No. I think they came up in our
12 conversation last night as another supplier of a
13 resin, but I don't know anything about the company.

14 Q. Were you told that Rogers and Durez
15 occasionally made crocidolite-containing phenolic
16 molding compounds?

17 A. I've heard that there's a possibility that
18 crocidolite was used in the Durez material. I don't
19 recall that as to Rogers. And I don't know the
20 extent to which any of that can be confirmed.

21 Q. Have you ever read anything about the
22 mesothelioma experience arising out of the Durez
23 manufacturing facilities?

24 A. No, I haven't. I'd be happy to see that



1 if, you know...

2 Q. That's not something that you've come
3 across in your research?

4 A. I may have seen something, but I just
5 don't recall at this time if I have.

6 Q. For the Reichhold internal documents that
7 you reviewed, you have those with you today?

8 A. I do.

9 Q. How many Reichhold internal documents were
10 you given last night?

11 A. Only a few.

12 Q. Can you tell me how many?

13 A. It looks like -- one of the things that's
14 being counted as a Reichhold document is an excerpt
15 from Chemical Week magazine. But we're talking
16 about, oh, about ten documents all told.

17 Q. Why would -- was it represented to you
18 that excerpts from Chemical Week magazine were found
19 in the files of Reichhold?

20 A. No. But they're company-specific in the
21 sense that Reichhold had a paid advertisement in the
22 same issue of the magazine, so that's -- that puts it
23 in the class of corporate knowledge documents.

24 Q. Based on your theory that if you took an

1 ad out in a magazine, that you immediately acquire
2 knowledge of whatever magazine the ad was published
3 in?

4 A. Well, that means you probably read the
5 magazine; yes.

6 Q. What's that based on? Have you got any
7 type of study or documentation --

8 A. No.

9 Q. I've got an ad out in a couple of
10 newspapers for a car I'm trying to sell. Does that
11 mean I read that newspaper every single day front to
12 back to see what else is in there?

13 A. Not necessarily, but I think you'd
14 probably want to make sure that your ad is in that
15 paper when you pay for it and that the information as
16 to how to contact you and all that's been properly
17 recorded in the ad.

18 Q. To get to that, you think I need to read
19 every article in the paper to make sure my --

20 A. No. But you selling a product in a
21 classified ad in a newspaper isn't the same thing as
22 a corporation broadcasting its presence in a trade
23 magazine to members of the industry of which it is a
24 part.

1 Q. Do you have any evidence that this trade
2 magazine was found among the files of Reichhold, that
3 it even had a copy of the magazine in which its ad
4 was published?

5 A. No; but I can't picture them not reading
6 Chemical Week magazine. When I worked in the
7 chemical industry in 1968 and 1969 as a junior
8 engineer, I received regularly, I think, Chemical
9 Week and Chemical and Engineering News being
10 circulated among the young engineers in the company,
11 just by way of knowing about news in the chemical
12 industry, what new products were coming along, what
13 kinds of things were happening in the industry.

14 These magazines were well known to me.
15 Later on I would become a subscriber to Chemical Week
16 magazine when I worked in the field of chemical
17 hazards and toxic substances control.

18 MR. McCAULEY: Object to the
19 responsiveness.

20 BY MR. McCAULEY:

21 Q. Which Chemical Week magazine excerpts are
22 you referring to?

23 A. Well, the September 19 -- September 10,
24 1966 issue of the magazine talks about cancer hazard

1 from asbestos and possible resulting increased market
2 opportunities for chemical companies. And there's an
3 article called "Asbestos: Awaiting Trial."

4 Q. You think everything in that article's
5 true?

6 A. I don't know if it is or not. But the
7 issue is notice, not the truth of the matters
8 contained in this or any other article I discuss when
9 I testify.

10 Q. That article states that, quote, Recent
11 studies have convinced US Public Health Service
12 specialists and other medical authorities that about
13 40 percent of all Americans have mild chronic cases
14 of asbestosis, even though most of them never worked
15 directly with asbestos, end of quote.

16 Do you see that statement?

17 A. I do.

18 Q. That's not true, is it?

19 A. No. It's an incorrect inference based on
20 the presence of asbestos bodies in the lungs of urban
21 dwellers at autopsy.

22 Q. And it also says, quote, The
23 inferences: While the average asbestos worker is
24 well protected, the man on the street is not, end of

1 quote.

2 Right?

3 A. That's what it says.

4 Q. You would agree with that, right, that in
5 1966, the average asbestos worker was well protected;
6 right? You ascribe to that?

7 A. No.

8 Q. So that's not -- for whatever that's
9 worth, it's certainly not an accurate statement of
10 the science at that time, is it?

11 A. Well, we're not talking so much about
12 science as the practice in American industry. And
13 the practice in American industry was not to
14 provide -- was not to assure that the average
15 asbestos worker was well protected.

16 There was no government regulation at
17 the time this was published. There was no OSHA.
18 There was no Environmental Protection Agency. There
19 was no Consumer Product Safety Commission. These
20 agencies had not yet been created by acts of
21 Congress. And so it would be --

22 Q. There were --

23 A. -- incorrect.

24 Q. In various states there were laws



1 requiring that industry comply with various threshold
2 limit values for different substances; correct?

3 A. Well, the TLVs were cited as good practice
4 guidelines that industry should try to comply with.
5 But there was no enforcement.

6 MR. McCAULEY: Object to the
7 responsiveness.

8 BY MR. McCAULEY:

9 Q. My question was, in various states there
10 were laws requiring that employers limit exposures to
11 various substances according to threshold limit
12 values, or TLVs; right?

13 A. Well, the TLVs were cited as guidelines.
14 They were -- these laws you're referring to very
15 often didn't include any section on penalties, didn't
16 authorize the government inspectors to do unannounced
17 inspections and confirm any compliance with these
18 exposure limits.

19 Of course, many of the states in which
20 these codes existed did not have laboratories,
21 government laboratories, established that were
22 capable of doing air sampling and analysis for the
23 hundreds of substances that were on the TLV list.

24 So, you know, while the TLVs may have



1 been mentioned in the codes, they were mentioned in
2 different ways in different states and usually
3 presented as good practice guidelines rather than any
4 kind of enforceable limits for which violation
5 employers would be penalized.

6 MR. McCAULEY: Object to
7 responsiveness.

8 BY MR. McCAULEY:

9 Q. It sounds like you agree with me that in
10 various states there were laws on the books adopting
11 the TLVs as state law; yes or no?

12 A. Yes. They listed them as guidelines.

13 Q. Well, did any of them list them as laws
14 that say, Employer shall keep exposures below these
15 levels?

16 A. It was usually stated more artfully than
17 that. You know, I don't think there was any such law
18 in Delaware, for example. But, of course, we're
19 talking about exposures that took place in Iowa. I
20 don't know what the law might have been in the state
21 of Iowa during the pre-OSHA period, before the 1970s.

22 Q. Do you know in how many states Square D
23 had manufacturing facilities between 1965 and 1980?

24 A. No, I don't know.

1 Q. And you would expect them to have
2 knowledge of the health and safety laws of any state
3 in which they employed workers; correct?

4 A. One would think that at least that the
5 presence of these codes or laws, as you call them,
6 would serve as notice to employers such as Square D
7 about recognized hazards in their own workplace.

8 Q. I mean, in terms of your opinions about
9 what companies knew or should have known about the
10 hazards of asbestos, are you in any way excepting
11 Square D from that and saying they're the one
12 manufacturing company that did not have access to the
13 information that everybody else had access to?

14 A. Of course not.

15 Q. You've testified about other electrical
16 equipment manufacturers in the past, have you not,
17 such as Westinghouse and General Electric?

18 A. Yes, I have.

19 Q. And you testified that companies like that
20 have reason to know about health hazards of asbestos
21 from back in the 1930s; right?

22 A. Well, that's based on corporate documents
23 that have been produced about Westinghouse and
24 General Electric showing knowledge about the hazards

1 of asbestos going back to the 1930s and the 1940s;
2 yes.

3 Q. Do you know whether Square D -- you
4 certainly agree with me Square D was in the same
5 segment of the industry as Westinghouse and General
6 Electric, right, electrical equipment manufacturer?

7 MR. CRUMPLAR: I would object to the
8 word "segment."

9 BY MR. McCAULEY:

10 Q. Square D was an electrical equipment
11 manufacturer, as were General Electric and
12 Westinghouse; right?

13 A. Well, I don't know how similar they were.
14 But they all made electrical equipment. Obviously
15 the other companies, Westinghouse and GE, were much
16 bigger than Square D.

17 Q. Well, do you know in terms of -- you
18 haven't done any market analysis. You're just saying
19 that those are sort of bigger names, better-known
20 names than Square D; right?

21 A. Right. And, again, I would say sight
22 unseen, without having checked the figures, that
23 they're much more than ten times the size of Square D
24 by the usual measures that one might take of



1 businesses, such as annual sales or whatever else you
2 want to count.

3 Q. Do you know whether there were segments of
4 the electrical equipment industry in which Square D
5 had a bigger market share than General Electric or
6 Westinghouse?

7 A. I don't know. I don't see how that
8 matters.

9 Q. Do you know what trade organizations
10 Square D was a member of?

11 A. No, I don't.

12 Q. In the materials that you were given last
13 night, were you given any Union Carbide documents
14 that mentioned Reichhold?

15 A. No, I wasn't, I don't think.

16 Q. From your prior work on, in researching
17 companies that made or sold asbestos products, you
18 reviewed a number of internal Union Carbide records;
19 right?

20 A. I have.

21 Q. And you've cited -- even in cases not
22 involving Union Carbide, you've cited internal Union
23 Carbide documents for various purposes regarding what
24 people knew or should have known about hazards of



1 businesses, such as annual sales or whatever else you
2 want to count.

3 Q. Do you know whether there were segments of
4 the electrical equipment industry in which Square D
5 had a bigger market share than General Electric or
6 Westinghouse?

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11 A. No, I don't.

12 Q. In the materials that you were given last
13 night, were you given any Union Carbide documents
14 that mentioned Reichhold?

15 A. No, I wasn't, I don't think.

16 Q. From your prior work on, in researching
17 companies that made or sold asbestos products, you
18 reviewed a number of internal Union Carbide records;
19 right?

20 A. I have.

21 Q. And you've cited -- even in cases not
22 involving Union Carbide, you've cited internal Union
23 Carbide documents for various purposes regarding what
24 people knew or should have known about hazards of

1 asbestos; right?

2 A. Right.

3 Q. And you've cited some specific Union
4 Carbide documents in your book; correct?

5 A. I have.

6 Q. And you weren't shown any documents from
7 Union Carbide that discuss Reichhold and its policies
8 with respect to asbestos?

9 A. I don't think so. I just don't recall
10 seeing such documents.

11 Q. And if Union Carbide made various
12 statements about Reichhold specific to its policies
13 and procedures regarding asbestos, that's not
14 something you think might be helpful to you in
15 forming your opinions in this case?

16 A. Well, it might be. And I welcome those
17 documents. If you care to provide them to me, I'd
18 like to see them.

19 Q. You weren't provided those by the people
20 who retained you in the case; right?

21 A. Right.

22 Q. I was provided with an excerpt from a New
23 York Times article -- I'm sorry -- an excerpt from
24 The New York Times newspaper, I guess, from 1954. Is

1 that something that you reviewed and relied upon in
2 this case?

3 A. Not specifically in this case. But there
4 are lots of newspaper articles that I have
5 accumulated. I have a file called -- well, I think
6 it's called "newspapers." And there was a great deal
7 in that period in The New York Times over the years
8 about asbestos and the cancer-causing properties of
9 asbestos going back to 1948.

10 Q. Can you tell me how the September 16, 1954
11 excerpt from The New York Times is relevant to your
12 opinions in this case? I just don't see anything in
13 it about asbestos. That's why I'm asking.

14 A. I don't know what it's doing in the case,
15 then, if it's not talking about asbestos. The one I
16 was thinking about was October 7th, 1964, that talked
17 about mesothelioma and an upcoming conference that
18 Selikoff was organizing in New York.

19 Q. I mean, it's possible that I could have
20 missed the relevance of it. But it's the
21 September 16th, 1954 New York Times. And it's not
22 the whole thing; just a couple of excerpts.

23 I do see that it says that -- there's
24 a little blurb that says "New Reichhold plant to



1 open," and it says that Reichhold -- spelled wrong --
2 Chemicals, Inc., announced yesterday that its new
3 formaldehyde-producing installation at the Charlotte,
4 North Carolina plant will be in operation by
5 October 15th.

6 A. Oh, I think that was from 1935. And it --
7 it was shown to me because it was in 1935 that
8 asbestosis was made a compensable occupational
9 disease in North Carolina.

10 Q. So that document about the North Carolina
11 workers' comp statute, that was shown to you last
12 night as well?

13 A. Yes, it was.

14 Q. And is that something you read and relied
15 upon for your opinions in this case?

16 A. Yeah. I think it's additionally, you
17 know, relevant to the issue of whether Reichhold knew
18 or should have known about the hazards of asbestos
19 back in the 1930s.

20 Q. Well, assume that it opens this plant in
21 North Carolina in 1954. Do you have any information
22 that this formaldehyde-producing installation had
23 anything to do with asbestos?

24 A. No, I don't. I mean, it may have used

1 asbestos insulation. It may not have. You know, if
2 that's -- if the date is 1954, yeah, the connection
3 is certainly not terribly strong.

4 Q. So if they opened a plant in 1954 that
5 made formaldehyde and didn't use asbestos in that
6 process at all, is it your belief that they,
7 nonetheless, should have been aware of every
8 occupational disease that the North Carolina
9 industrial commission recognized --

10 A. No.

11 Q. -- in 1954?

12 A. No, not necessarily.

13 Q. Would you think the same thing about
14 Square D opening a plant in any particular state,
15 that it should know about what the compensable
16 industrial diseases are in those states?

17 A. One would think that, you know, they,
18 somebody in the company should have been paying
19 attention to that. I mean, these things do have
20 bottom-line implications in terms of insurance
21 charges and liability, potential liabilities.

22 Q. Do you know when or if Iowa ever made
23 asbestosis a compensable disease?

24 A. I can't recall having seen anything about

1 the workers' comp laws in Iowa as to asbestosis. In
2 many states the -- there was no schedule or list of
3 the compensable diseases. It was simply left open
4 that if medical evidence could establish that a
5 disease was an occupational disease, that the person
6 was eligible for workers' comp. So you wouldn't see
7 any explicit inclusion of asbestosis in the text of
8 the law itself in such a state. Like California was
9 like that.

10 Q. North Carolina was a state that had a
11 significant textile industry from back in the 1920s
12 and '30s; right?

13 A. I think so.

14 Q. And they had a number of dust diseases --
15 a number of dust diseases became associated with
16 those textile industries; right?

17 A. Eventually, yes.

18 Q. And this National Safety News -- what you
19 were provided last night was a National Safety News
20 from May of 1935 which has an article in it titled,
21 "Occupational Diseases Made Compensable in NC."

22 Right?

23 A. Yes.

24 Q. North Carolina was pretty advanced in its

1 industrial hygiene department, was it not? One of
2 the first states to have a state industrial hygiene
3 department, wasn't it?

4 A. I'm just trying to confirm that they had
5 an industrial hygiene department. I'm looking for
6 that in the article.

7 Q. Well, let me rephrase the question.

8 The article says, quote, The state of
9 North Carolina by the action of its legislature on
10 March 26th became the 12th state in the union to
11 adopt an amendment to its workers' compensation law
12 so that it would now include occupational diseases as
13 well as accidents as compensable disabilities, end
14 quote; correct?

15 A. That's what it says, yes.

16 Q. So according to the article, it's the 12th
17 state to add occupational diseases to its law, right,
18 as being compensable?

19 A. Right.

20 Q. And the article states that -- it quotes
21 T.A. Wilson of the State Industrial Commission. So
22 that would give you an indication that it had an
23 industrial commission at least in 1935; right?

24 A. Well, every state had an industrial



1 commission. If they had a workers' compensation law,
2 these laws were usually administered by government
3 agencies with names like the State Industrial
4 Commission.

5 Q. And this says that the new law provides
6 for a medical committee to examine prospective and
7 present employees in two dust industries: silica and
8 asbestos; right?

9 A. Right.

10 Q. And it says that, quote, It provides for
11 the removal of employees in the early stages of
12 disease and that vocational training shall be
13 provided for those who are removed, end of quote;
14 correct?

15 A. Yes.

16 Q. That was a common approach to dealing with
17 asbestosis in the 1930s, was removing the worker from
18 the area where he or she was being exposed to
19 asbestos with the notion that that would stop the --
20 any further worsening of the disease; right?

21 A. I don't know about that. I mean, this was
22 something that was discussed in the literature. You
23 know, different doctors writing articles about
24 asbestosis would sometimes comment on the question of

1 removal of the worker who had already some signs of
2 the disease.

3 Most of the medical reports didn't say
4 anything about that. In some of the reports, they
5 talked about progression after the removal of the
6 worker. In other cases, they talked about the lack
7 of evidence for progression in the particular study
8 that was being published at the time.

9 You know, different -- but in terms
10 of -- your question, the reason I'm having to give
11 you a long answer is your question is asking me about
12 what the standard practice was in industry at the
13 time. And the standard practice in industry is not
14 so easily discerned from reading a few medical
15 reports published by doctors who might or might not
16 have had much acquaintance with what industry was
17 actually doing in dealing with these kinds of issues.

18 There was no government regulation in
19 most states. What North Carolina was doing was
20 probably exceptional in providing medical
21 examinations of workers in these particular
22 industries and providing for the removal of the
23 workers with early stages of a disease. But that was
24 not, I wouldn't think, widespread practice in the



Page 37

4 BY MR. McCAULEY:

13 A. Right. That's what it says.

17 A. Right.

23 A. That's No. 13; yes.

24 Q. I'm sorry. You're right. It's hard to

1 read.

2 And you would agree with me that there
3 are situations where chemical dust can be a serious
4 hazard to the skin and nasal passages if inhaled or
5 if someone comes in contact with them?

6 A. Sure; if it's an irritating material.

7 Q. And then it lists as No. 24, asbestosis;
8 correct?

9 A. It does.

10 Q. And 25 is silicosis; right?

11 A. Right.

12 Q. Do you know whether byssinosis was also a
13 lung-related disease that was of concern to the North
14 Carolina industries back at this time?

15 A. I think there may have been some concern
16 about it, but it doesn't appear to have been manifest
17 in any kind of workers' compensation law as of 1935.
18 That apparently came later.

19 Q. Did you review Mr. Madden's testimony
20 about Reichhold's use of warnings on phenolic molding
21 compounds?

22 A. I think I saw some excerpts of the
23 testimony to the effect that there appear to have
24 been, I think, warnings in 1980, 1979.

1 Q. I believe you mentioned the Chemical
2 Manufacturers Association; right?

3 A. Well, I don't know if I have. But I'm
4 well aware of who they were.

5 Q. And they had a -- they put out a book on
6 warnings; right?

7 A. They did.

8 Q. And they had a committee that dealt with
9 warnings and precautionary instructions; right?

10 A. Well, they did back in the 1940s when they
11 put out that guideline we were referring to.

12 Q. Well, do you know whether they updated,
13 continued to update that guideline through the '60s
14 and '70s?

15 A. I don't know to what extent there was any
16 kind of an effort to continuously update that. It
17 may have been done on an ad hoc basis in subsequent
18 years. That wouldn't surprise me if it was.

19 Q. Do you know whether there were states that
20 adopted the Chemical Manufacturers Association
21 warning label as their state law with respect to
22 warnings?

23 A. No, I don't.

24 Q. I think you told me this earlier. Let me

1 check off a couple questions.

2 You don't know of the phenolic molding
3 compound formulations that Reichhold had from 1965 to
4 1981, you don't know how many of those formulations
5 involved asbestos; right?

6 A. That's correct.

7 Q. And for the ones that did involve or use
8 asbestos, you don't know -- other than the statement
9 in the material safety data sheet that some may have
10 contained up to 51 percent, you don't know the
11 percentages that the various formulations may have
12 contained; right?

13 A. That's correct.

14 Q. And would you agree with me that the
15 potential for exposure to asbestos from a product
16 will vary or may vary according to the asbestos
17 content of the product; in other words, a hundred
18 percent would present more of an opportunity for
19 exposure than 1 percent?

20 A. Yes. In the case of these products, I
21 would say that one would expect there would be some
22 kind of a monotone increasing functional relationship
23 between the percent of asbestos in the product and
24 the exposures you get from doing the exact same

1 things with the products having different
2 compositions of asbestos content.

3 Q. Have you reviewed any documentation that
4 you believe relates to the ability of any phenolic
5 molding compounds that release asbestos as it's used
6 in the molding process?

7 A. I haven't seen any reports of air sampling
8 and analysis or exposures to asbestos from such
9 activities.

10 Q. And I did not mean to limit that to
11 Reichhold. I mean any type of phenolic molding
12 compounds. Does your --

13 A. I took your question in the manner you
14 intended it when I answered it; yes.

15 Q. Have you reviewed any materials that you
16 believe relate to the manner in which the Reichhold
17 phenolic molding compound was manufactured at the
18 Reichhold facility?

19 A. I mean, nothing besides those corporate
20 documents that are in evidence in this case, that
21 have been presented as part of my deposition
22 material.

23 Q. Are there -- can you identify for me the
24 corporate documents that you have that you believe



1 relate to the method by which the Reichhold phenolic
2 molding compound was manufactured in the Reichhold
3 facility?

4 A. No. I don't recall there being a whole
5 lot about that in these documents, but let me look at
6 them real quickly.

7 Most of these documents relate to the
8 OSHA regulations and their potential application in
9 the Reichhold plant. So they indicate that the
10 process -- let's see.

11 They talk about specific areas, for
12 example, where the employees should be required to
13 wear respirators. And they list four activities
14 there. This is in the March 28, 1973 memorandum to
15 Jansen, J-A-N-S-E-N.

16 So, you know, there are activities
17 like that that are sort of alluded to in the context
18 of OSHA compliance in that memorandum. Do you want
19 me to go into it in any more detail? I mean, you can
20 see what the document says.

21 Q. Right. I'm trying to figure out
22 whether -- that's a 1973 document. I'm trying to
23 figure out whether you have any documents that you
24 believe describe to you the manner in which the



1 Reichhold product was manufactured as opposed to, you
2 know, precautions taken in the facility by certain
3 people.

4 A. No. I don't think I actually have
5 anything or have been shown anything that provides in
6 any detail the process, the chemical process the
7 manufacturer used in the Reichhold plant where the
8 resins were made.

9 Q. Do you know the difference between resin
10 and phenolic molding compound?

11 A. I'm not -- no, I don't. I mean -- there's
12 a lot of technical jargon in the chemical industry,
13 and I'm not familiar with some of it; that's for
14 sure.

15 Q. Have you ever made any effort to compare
16 the phenolic molding compound manufactured by
17 Reichhold with any type of phenolic molding compound
18 manufactured by any of its competitors, such as Durez
19 or Rogers?

20 A. No. I mean, generally this kind of
21 material is not -- not ever issued in any kind of
22 published documents, at least not in a complete way.
23 It might have emerged in the course of litigation,
24 but I haven't seen documents that might offer the

1 kind of comparison your question calls for.

2 Q. Now, the March 28th, 1978 -- I'm sorry.

3 The March 28th, 1973 letter has the
4 subject, quote, Use of asbestos in polyesters, end of
5 quote; correct?

6 A. Yes. Right. That's the subject heading
7 for the memo.

8 Q. And the second paragraph of this -- and
9 you understand this memo to be from a gentleman named
10 Tom Madden?

11 A. Yes. Or T.R. Madden.

12 Q. The second paragraph says, quote, This
13 memo summarizes the health and safety requirements
14 contained in Regulation 1910.93(a) of the
15 Occupational Safety and Health Administration (OSHA)
16 of the US Department of Labor (copy attached).

17 Correct?

18 A. That's what the second paragraph says.

19 Q. And you believe this would show an
20 awareness by Reichhold of the OSHA asbestos
21 regulations as of March 28th, 1973; correct?

22 A. Yes.

23 Q. And you've certainly seen other companies
24 that were involved in manufacturing



1 asbestos-containing products that professed ignorance
2 of the OSHA regulations with respect to asbestos in
3 the 1970s. Companies have said, We didn't know
4 anything about that; right?

5 A. Sure. I mean, in the course of asbestos
6 litigation, one encounters all kinds of companies.
7 But most of the companies that were using asbestos as
8 a raw material in their industrial processes do
9 acknowledge that they were aware of the OSHA
10 standards when they came out.

11 Q. Your opinion would be that if somebody's
12 using asbestos in the manufacturing process, they
13 needed to be aware of the OSHA regulations; right?

14 A. Right. I can't imagine any but the
15 smallest employers not being aware of that -- talking
16 about companies that are using asbestos in their
17 industrial processes as a raw material to manufacture
18 other products.

19 Q. Do you have any problem with Mr. Madden's
20 statement of what the OSHA regulations require?

21 A. Well, I haven't looked at the letter -- I
22 haven't looked at the memo with the, the four-page
23 memo for the purpose of, you know, seeing if there's
24 anything in it that's incorrect.

1 kind of comparison your question calls for.

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14 contained in Regulation 1910.93(a) of the
15 Occupational Safety and Health Administration (OSHA)
16 of the US Department of Labor (copy attached).

17 Correct?

18 A. That's what the second paragraph says.

19 Q. And you believe this would show an
20 awareness by Reichhold of the OSHA asbestos
21 regulations as of March 28th, 1973; correct?

22 A. Yes.

23 Q. And you've certainly seen other companies
24 that were involved in manufacturing

1 But, you know, overall it seems to
2 be -- you know, it seemed to be correct. Like I say,
3 it's a four-page memorandum. But it appears from at
4 least what I looked at, you know, without looking at
5 it extremely carefully, overall it looks like -- it
6 appears correct. I don't see statements in it that
7 are clearly incorrect.

8 Q. This says that it's from White Plains. Do
9 you know what White Plains was?

10 A. I think that was the Reichhold corporate
11 headquarters at the time of the date. But it may not
12 have been. I don't know.

13 Q. And what -- do you understand this to be
14 Mr. Madden saying from headquarters to Mr. Jansen
15 that if you want to evaluate the use of asbestos in
16 your facility, here are all the things that you need
17 to do?

18 A. Well, I don't know that he's saying that.
19 But he's talking about the safeguards that the
20 regulations, the OSHA regulations require and is
21 interpreting them as they would apply to the
22 Reichhold facility.

23 Q. Do you know in what Reichhold facility
24 they manufactured phenolic molding compounds?

1 MR. CRUMPLAR: Are you talking about
2 the asbestos-containing phenolic molding compounds?

3 MR. McCAULEY: Any -- if that's an
4 objection, feel free.

5 MR. CRUMPLAR: I was just trying to
6 talk about what you were including in that; that's
7 all.

8 BY MR. McCAULEY:

9 Q. Dr. Castleman, do you have any information
10 that Reichhold manufactured asbestos-containing
11 phenolic molding compounds somewhere different than
12 where it manufactured non-asbestos phenolic molding
13 compound?

14 A. I just don't know. And I don't know the
15 locations of the plant or plants where the products
16 were made by Reichhold.

17 Q. Are you aware that one of the suppliers to
18 Reichhold of asbestos was Union Carbide?

19 A. Mr. Crumplar may have mentioned that to me
20 yesterday. I'm not sure.

21 Q. But he didn't show you any Union Carbide
22 documents discussing Reichhold; right?

23 A. I don't think so, no.

24 Q. I see a couple of documents titled R --

1 looks RCI Cost Standard; do you have those?

2 A. I saw that they're in here somewhere. Can
3 you describe them further.

4 Q. Sure. It sort of a recipe card that has a
5 formulation date at the top. Then it has a table and
6 has a bunch of substances listed, and then it has the
7 amount next to them. It's not text. It's just sort
8 of a chart.

9 A. Oh, I think I have seen that. I don't
10 know if it's among the -- oh, yeah, yeah, yeah. This
11 is not the material safety data sheet. This is
12 something else; right?

13 Q. Right. It's something that you might
14 think of as like a --

15 A. I think Mr. Crumplar showed me that. And
16 I looked at it and said I didn't think it was
17 particularly useful. It appears to have been some
18 kind of a formula of different elements, different
19 materials that were used in some composition of some
20 molding product by Reichhold, some recipe.

21 Q. You were shown one or two of those?

22 A. Yeah. It was kind of a tabular
23 presentation. And I thought, well, I don't see
24 the -- you know, I don't see the usefulness of this.



1 Q. You weren't trying to come up with any
2 opinions about how prevalent the asbestos-containing
3 formulations were among the Reichhold phenolic
4 molding compound product line; is that fair to say?

5 A. Well, certainly that document was
6 certainly of no help in answering that kind of
7 question.

8 Q. If the majority of the asbestos-containing
9 formulations contained less than 5 percent asbestos,
10 that wouldn't change your opinions in the case in any
11 way, would it?

12 A. I don't think so. I didn't see any
13 indication that they were making products with such a
14 small asbestos content as that.

15 Q. Right. You weren't shown those
16 formulations, but you don't have an opinion about
17 what the range of asbestos content was in the
18 different formulations; right? That's just not your
19 area of testimony?

20 A. Well, that's right.

21 Q. But it might make a difference just in
22 terms of potential for exposure if most of them
23 contained, you know, less than 5 percent as opposed
24 to 52 percent; right?

1 A. Well, it would make a difference in terms
2 of potential for exposure. But, again, I haven't
3 seen any measurements of what kind of exposure people
4 get, any kind of analyses and reports devoted to the
5 subject of measuring the exposure.

6 Q. Now, you were -- I was produced, I believe
7 these came in last night, some documents from The
8 Hartford. I'm looking at a document from The
9 Hartford dated August 18th, 1981, to Mr. Raymond
10 Clark, technical director of Reichhold Chemicals, at
11 Carteret, C-A-R-T-E-R-E-T, New Jersey.

12 A. Yes.

13 Q. From Warren Townes, the industrial
14 hygienist?

15 A. Right. I think that's -- right. That's
16 the author's name, the name of the author of this
17 letter.

18 Q. And this says [reading]: This report will
19 confirm my visit to your plant for the purpose of
20 determining the airborne concentration of asbestos to
21 the personnel working in the molding compound
22 department.

23 Correct?

24 A. Right. So apparently the plant was in



1 Q. And then for Line D, it says 8,000 pounds
2 using 350 pounds, and it's sort of cut off. But
3 would you assume that 350 pounds means asbestos?

4 A. Yes. That's the way it seems to read.

5 Q. Now, you know I don't like to do math, but
6 do you know what percentage 350 is of 8,000?

7 A. Well, it's a little over 4 percent.

8 Q. It's less than 5 percent?

9 A. Right. Slightly under 5 percent.

10 Q. So if they were making a commercial batch
11 of product with Line D, it would appear that it's got
12 less than 5 percent of asbestos in it; right?

13 A. Yes.

14 Q. And it also would appear that it sure is a
15 lot less than what's running on A, B, and C. A, B,
16 and C all are running 35,000 pounds, and Line D is
17 only 8,000 pounds. Any idea why?

18 A. No. It's just one eight-hour shift. They
19 might have simply had more orders for a certain
20 product that week or that day. I have no way of
21 knowing how representative the production of that one
22 eight-hour shift is of what they were making that
23 month or that year.

24 Q. Have you seen any documentation about the

1 New Jersey.

2 Q. And you've seen other examples of
3 insurance companies going into facilities that used
4 asbestos-containing products and doing tests there?

5 A. Right.

6 Q. Is this the only Hartford test report that
7 you were given by Mr. Crumplar?

8 A. It is.

9 Q. And what's the significance of this to
10 your opinions in this case, if any?

11 A. It shows that the company was still using
12 asbestos in some of its residences as of August of
13 1981 -- or June, I guess, of 1981, the time of the
14 sampling.

15 Q. So did you review -- have you reviewed any
16 of Mr. Madden's testimony about this document?

17 A. No.

18 Q. It says that -- pounds of products
19 produced during an eight-hour shift. And it says,
20 Line A, 35,000 pounds, no asbestos. Line B,
21 35,000 pounds, no asbestos. Line C, 35,000 pounds,
22 no asbestos.

23 Right?

24 A. Right.



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2 using 350 pounds, and it's sort of cut off. But

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19 might have simply had more orders for a certain

20 product that week or that day. I have no way of

21 knowing how representative the production of that one

22 eight-hour shift is of what they were making that

23 month or that year.

24 Q. Have you seen any documentation about the



1 Reichhold customer demand for asbestos-containing
2 phenolic molding compounds? Have you seen any
3 documents that relate to that topic at all?

4 A. I don't think I have.

5 Q. Would you agree, if you have any specific
6 opinions regarding Reichhold, that you formed those
7 opinions since -- last night or since last night?

8 A. Well, to the extent I've been shown
9 corporate documents that shows Reichhold was an
10 advertiser in the September 10th issue, 1966, of
11 Chemical Week and to the extent that I've been shown
12 the corporate documents which you have from 1971 to
13 1981, these documents do support additional opinions
14 as to Reichhold and asbestos.

15 Q. And what additional opinions did you form
16 when you saw these documents last night?

17 A. Well, they confirm that Reichhold had
18 actual knowledge through Chemical Week magazine about
19 the hazards of asbestos in 1966; that Reichhold had a
20 rather complete understanding of the federal
21 regulations on asbestos in the case of the emergency
22 standard within weeks of the time that the emergency
23 temporary standard on asbestos was published by OSHA
24 in December of 1971; and that the company had

1 additionally by 1973 more detailed information
2 documented here -- probably had the information
3 before that -- but documented in March of 1973 about
4 the application of the OSHA regulations in their
5 manufacturing plant where they were making asbestos
6 in these various resins -- using asbestos in these
7 various resins. And let's see if there's anything
8 further.

9 Again, there's just additional
10 documents showing a familiarity with the requirements
11 of the OSHA rules, requirements for such things as
12 periodic air sampling, requirements for periodic
13 medical examinations, requirements for the bagging of
14 waste and for the use of respirators for workers who
15 are doing certain jobs in the plant.

16 And so that the documentation, it
17 seems to me, begs the question: Were these things
18 actually being done? Because one doesn't have
19 documentation, memos and so forth, where, you know,
20 these activities are actually being carried out.
21 There's no memos reflecting that. But in any case,
22 it shows an awareness of the regulations and their
23 application at the Reichhold plant.

24 Q. So whether Reichhold was actually

1 complying with the OSHA regulations in its own
2 facilities, your opinion would be an employer using
3 asbestos in its manufacturing process was obligated
4 to comply with OSHA regulations as of the temporary
5 emergency standard in 1971?

6 A. Yes; and that Reichhold was aware of this.

7 Q. They were required to be aware of it by
8 law; right? Whether they were or not, they were
9 required to be aware of it; correct?

10 A. That's right. Ignorance of the law is no
11 excuse for not complying with the law.

12 Q. Assuming that Square D had more than ten
13 employees in 1971, they were required to be aware of
14 the federal OSHA standard as well; correct?

15 A. Right.

16 Q. And they were required to comply with it
17 just as Reichhold was; correct?

18 A. I think so. Again, they needed to know
19 that there was asbestos in the product they were
20 handling in order to be, reasonably be expected to
21 comply with it. They may or may not have had that
22 information about the resins that they were handling.

23 (Discussion held off the record.)

24 (Recess.)

Page 56

2 Q. If you assume for me that there's
3 testimony -- that there was testimony that in the
4 Square D facility, that the use of phenolic molding
5 compounds in general created visible dust, your
6 opinion would be that Square D had the obligation to
7 figure out what was in the visible dust; correct?

8 A. Well, I don't know if they had a legal
9 obligation to do that. But they certainly had a
10 moral obligation to know what they were exposing
11 their workers to in terms of the potential health
12 security hazard from the raw materials they were
13 processing there.

14 Q. Right. I mean, the visible dust from
15 phenolic molding compounds might cause problems other
16 than lung disease; right?

17 A. Right. There might be other agents in
18 that dust that would be of concern other than
19 asbestos.

20 Q. For example, you're aware that there
21 are -- that phenol, P-H-E-N-O-L, and formaldehyde,
22 which I can't spell, are substances that can create
23 problems not related to asbestos disease; right?

24 A. Right.

1 Q. I mean, they may be necessary chemicals,
2 but they can also be dangerous chemicals; right?

3 A. Right.

4 Q. If you assume for me that the testimony in
5 the case is that Reichhold sent a material safety
6 data sheet to customers who purchased
7 asbestos-containing phenolic molding compounds, you
8 would consider that a responsible thing for a company
9 to do; correct?

10 MR. CRUMPLAR: What's the date that
11 they sent this material?

12 BY MR. McCAULEY:

13 Q. Well, at any time they did it, it was a
14 responsible thing to do when they did it; right?

15 A. Not necessarily. That's why I would want
16 know when they did it and what the data sheet said.
17 Material safety data sheets are sometimes, I guess
18 the polite word is incomplete as to the disclosure of
19 the hazards of the materials involved. So just the
20 fact of having prepared an MSDS in and of itself
21 isn't an unqualified good thing.

22 Q. But you reviewed the material safety data
23 sheet provided to you in this case; right?

24 A. Yes. I had looked at a material safety

1 data sheet that was provided me by Mr. Crumplar.

2 Q. And it certainly says that the product
3 contains asbestos; right?

4 A. Yes, it does.

5 Q. So whenever it was sent, you would agree
6 with me that that's a responsible corporate act for a
7 company to send out a material safety data sheet
8 specifying what the ingredients of a product are;
9 correct?

10 A. Yes; especially if one of the ingredients
11 is up to 52 percent asbestos.

12 Q. And you would agree that putting the
13 worst-case scenario on there would also be a
14 not-inappropriate thing to do? If the highest
15 percentage of asbestos in any product was 52 percent,
16 you would want to put the highest and not the lowest;
17 right?

18 A. Right.

19 Q. And the date on the one you review is
20 1/80, January 1, 1980, or is it 3/80?

21 A. I looks like a 1, yeah. So it's the
22 beginning of 1980.

23 Q. Okay. Do you know what Mr. Madden's
24 testimony is about when the first time was that



1 Reichhold sent out a material safety data sheet with
2 any asbestos-containing or to customers for
3 asbestos-containing phenolic molding compounds?

4 A. No, I don't know about that.

5 Q. And you would agree with me that one of
6 the things that this material safety data sheet does
7 is direct the recipient to the OSHA asbestos
8 standard, Section 1910?

9 A. Just looking for that in here.

10 I just don't see it on here. If you
11 can tell me what page it is, that might help.

12 Q. Well, it's -- first of all, are you aware
13 that this is a form that was available for companies
14 to use, material safety data sheet?

15 A. I suppose it was, yes.

16 Q. And it has various sections that have
17 headings in them like "Section 2, Hazardous
18 Ingredients"?

19 A. Yes.

20 Q. And Section 3, I believe, the typed-in
21 portion of it says, See -- refer to section --
22 asbestos 1910.1002 of the Occupational Safety --
23 et cetera.

24 Do you see now?

1 A. Oh, yes, I do see that.

2 Q. Okay. So if the recipient had never heard
3 of the OSHA standard, if they look at this material
4 safety data sheet, it tells them where to go look for
5 the federal OSHA standard; correct?

6 A. Yes.

7 Q. And it would be your opinion that anyone
8 selling an asbestos-containing phenolic molding
9 compound should have been providing information like
10 this to its customers?

11 A. At a minimum, yes. I mean, they should
12 have been putting warning labels on the product as
13 well.

14 Q. Are you aware of any evidence that any
15 other phenolic molding compound manufacturer ever put
16 a warning label on an asbestos-containing phenolic
17 molding compound?

18 A. I don't know if they did or not.

19 Q. Are you aware that General Electric
20 manufactured phenolic molding compounds?

21 A. I'm not sure if I am. I understand that
22 they used materials, you know, in some of their
23 products. But I didn't know if they manufactured
24 the, you know, the Bakelite or Micarta type of

1 products themselves or not.

2 Q. Do you know the difference between a
3 phenolic molding compound and Micarta?

4 A. No. Again, we're getting into -- well,
5 we're getting into areas of specific product
6 formulation that go beyond my knowledge.

7 Q. Well, you understand Micarta to have been
8 a final plastic product that someone might then use
9 as a mounting board or something like that; correct?

10 A. Correct.

11 Q. Do you understand phenolic molding
12 compounds to be a raw material that someone must melt
13 and then form into some type of reinforced plastic
14 product?

15 A. Yes.

16 Q. So they're at least different in the sense
17 that Micarta might be an end product and a phenolic
18 molding compound is an intermediate raw-material
19 product. Would you agree with that?

20 A. I understand what you're saying. Okay.
21 Fine.

22 Q. Micarta might have been made with phenol
23 and formaldehyde and things like that. But as you've
24 seen it and testified about it, it is an end product



1 in and of itself; correct?

2 A. Generally, that's the way it comes up in
3 the litigation; yes.

4 Q. You're not aware of any use that can be
5 put of a, any use of a phenolic molding compound
6 other than to melt it and mold it into something;
7 right?

8 A. Well, yeah. I suppose that's the way it
9 works. You know, the technical jargon of this
10 particular industry is not known to me in any detail,
11 as you can tell from questioning me.

12 Q. Now, did you review Mr. Madden's testimony
13 about the first time that Reichhold put a warning
14 label on phenolic molding compounds?

15 A. No, I haven't.

16 Q. Are you aware of -- other than potential
17 asbestos issues, are you aware of any other potential
18 issues associated with dust that might be created by
19 any phenolic molding compound?

20 A. I may have seen something somewhere, but I
21 can't recall anything about that.

22 Q. I mean, do you know if it was a fire
23 hazard or an explosion hazard or any other reasons
24 you might not want to create dust with phenolic

1 molding compounds?

2 A. Well, generally, you could have fire or
3 explosion hazards with dust if the concentrations
4 were high enough, although it does depend to some
5 extent on the nature of the dust.

6 Q. Now, you have been provided with warning
7 labels in this case that relate to synthetic resin
8 compounds and asbestos?

9 A. I don't think I have, nothing besides a
10 manufacturing safety data sheet.

11 Q. You don't recall seeing warning labels,
12 one that says, "Caution: Contains asbestos fibers.
13 Avoid creating dust. Breathing asbestos dust may
14 cause serious bodily harm"?

15 A. Oh, okay, that appears -- I have no idea
16 what that's connected with, the way it was handed to
17 me, or when it was issued.

18 Q. And you didn't review Mr. Madden's
19 testimony about when and why Reichhold would use
20 various labels?

21 A. No, I didn't. I don't recall seeing that.

22 MR. CRUMLAR: He is not our warning
23 expert, so...

24 BY MR. McCAULEY:

1 Q. And you're aware of -- I believe you told
2 us earlier that using warning labels was pretty
3 common in the chemical industry going back to the
4 time that they first put out a manual in the '40s; is
5 that right?

6 MR. CRUMPLAR: I'm just going to
7 object to the term "warning label" when you have
8 something that says "caution." Not the same thing.

9 But you can answer.

10 THE WITNESS: Yeah. The use of such
11 labeling by the chemical industry obviously goes back
12 to the 1940s. The extent to which it was done, it
13 seems to me, would have been greater with respect to
14 immediate safety hazards like explosion or fire or
15 acute toxic exposures that would disable the worker
16 and potentially put the factory where the material
17 was used in danger, the whole factory.

18 So those kinds of hazards, I think,
19 got much more priority in the chemical industry
20 because the industry needed to take account of these
21 kinds of hazards just to function, just to operate
22 and not blow itself up.

23 But other kinds of hazard, more
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24 insidious, long-delayed health hazards like



1 product. So it was left to the sellers of the
2 product to make that determination and to label their
3 products accordingly.

4 Q. And you would agree that the exposures
5 that the employers were charged with regulating was
6 the cumulative exposure in the workplace, not -- or
7 the aggregate exposure in the workplace, not
8 exposures from one particular product? Do you
9 understand that question?

10 A. Yeah. If there were multiple sources of
11 asbestos exposure in a factory, for example, the
12 factory was supposed to do air sampling to determine
13 what the worst-case situation was and take action
14 based on that.

15 Q. I also have produced to us as something
16 that you reviewed are a couple of versions of Science
17 Newsletter --

18 A. Yes.

19 Q. -- the Weekly Summary of Current Science?

20 A. Yes.

21 Q. Is that something Mr. Crumplar gave you
22 last night?

23 A. Yes, it is.

24 Q. And would you agree with me that because

1 this was a weekly summary type of publication that
2 sometimes things were published in here that did not
3 turn out to be correct once you had the benefit of
4 hindsight; would you agree with that?

5 A. Well, I don't have anything in mind when
6 you say that. But that can always happen with the
7 publication of anything in any source.

8 Q. For example, I'm looking at the
9 November 7th, 1964 Science Newsletter. And I take it
10 that the pertinent part of that, in your opinion,
11 would be page 297 where under public health it says,
12 quote, Asbestos workers live longer but get cancer;
13 is that right?

14 A. Well, I think it's explained in the
15 article that, you know, the headline is elaborated
16 upon in a way that makes sense out of it. Because
17 obviously people don't live longer because they get
18 cancer.

19 Q. Well, is the gist -- your understanding of
20 the gist of this being that once asbestos exposures
21 were low enough that workers quit getting asbestosis,
22 they lived longer and had more of an opportunity to
23 also get cancer?

24 A. Well, the idea is that the workers were

1 not being wiped out by -- the article starts by
2 staying that workers used to die young of
3 tuberculosis or pneumonia and asbestosis. So, yeah,
4 this is basically -- this is a British doctor
5 reporting about conditions over in the United Kingdom
6 at the big Selikoff conference in 1964. And he's
7 saying workers who have developed only moderate
8 degrees of asbestosis have survived long enough to
9 develop the associated bronchial carcinoma.

10 So that makes more sense than the
11 headline does.

12 Q. Another speaker that they quoted is
13 Dr. J.C. W-A-G-N-E-R, Wagner; correct?

14 A. Yes.

15 Q. And does it report that -- it appears to
16 be saying that Dr. Wagner has reported that
17 injections of major varieties of asbestos --
18 chrysotile, crocidolite, and amosite, have apparently
19 caused mesotheliomas in the chest cavities of
20 animals?

21 A. Right.

22 Q. And he also reports that pleural
23 mesotheliomas have been the result of injections of
24 silica as well?

1 A. That's correct.

2 Q. Do you agree that silica causes
3 mesothelioma when injected to the pleura?

4 A. I've never seen any reports that said
5 that. So there might be a mistake here. There were
6 different types of -- well, I don't think, I don't
7 think that that's correct.

8 Q. Sometimes these reporters just didn't get
9 the science quite correct, did they?

10 A. Sometimes; that's right.

11 Q. In fact, in the next sentence, they spell
12 "asbestos" wrong, don't they?

13 A. Well, typo. Typos can always occur.

14 Q. But somebody reading this in 1964 would
15 see a citation that silica causes mesothelioma and
16 see "asbestos" spelled wrong; right?

17 A. Yes. Well, asbestos is mentioned numerous
18 places. It's just one place where it's spelled
19 wrong.

20 Q. And the other Science Newsletter was the
21 one October 31st -- well, I don't think we have to
22 talk about this. October 31st, 1964 Science
23 Newsletter?

24 A. Right.

1 Q. That's another -- is that something else
2 that you received from Mr. Crumplar last night?

3 A. Yes, it is.

4 Q. And this says that Dr. W.J. Smither,
5 S-M-I-T-H-E-R, of the Asbestos Research Council
6 London revealed a definite increase in the occurrence
7 of lung cancer among workers in an East End asbestos
8 factory in London; right?

9 A. I believe so.

10 Q. And this says that, quote, Asbestos dust
11 is also affecting the lungs of city dwellers,
12 regardless of whether or not they are asbestos
13 workers.

14 Correct?

15 A. Yes.

16 Q. And to support that it states [reading]:
17 Autopsies of 500 persons over 15 years of age in
18 Cape Town and 500 more in Miami, Florida, showed
19 asbestos bodies in many lung smears. Asbestos bodies
20 are asbestos fibers coated with an iron-containing
21 substance.

22 Correct?

23 A. Yes. That's what it says.

24 Q. There wasn't any epidemic of asbestos

1 disease among nonworkers in Miami, was there?

2 A. No. And the article doesn't say that.

3 Q. Do you believe that there was an epidemic
4 of asbestos-related neoplasias associated with just
5 neighborhood or city-dwelling exposure?

6 MR. CRUMLAR: Objection.

7 THE WITNESS: No, but we didn't know
8 that back then. Back in 1963, Thompson had first
9 published his finding about the presence of asbestos
10 bodies in the lungs of urban dwellers at autopsy.
11 And there was a concern that he expressed in his 1963
12 publication that this might ultimately lead to an
13 epidemic of mesothelioma because of the huge tonnage
14 of brake lining materials that were used in urban
15 areas around the world every year that had to be
16 replaced and that presumably created asbestos air
17 pollution. So this was a concern that was expressed
18 at the time, in 1964.

19 BY MR. McCAULEY:

20 Q. And it did not turn out to be the case
21 that there was any epidemic of mesothelioma
22 associated with just these bystander exposures or
23 neighborhood exposures; right?

24 A. Well, this was ambient, urban-air type of

1 exposures. And, yeah, it turned out within a few
2 years that other reports would show that most of the
3 brake lining materials were decomposed into
4 non-fibrous decomposition products so that Thompson's
5 alarm proved to be greater than the basic, you know,
6 air-pollution threat raised by the brake linings in
7 actual practice. But that information wasn't
8 available yet in 1964.

9 Q. Do you know of any article in the
10 published scientific literature that suggests that
11 there are any hazards associated with asbestos
12 exposure from phenolic molding compounds?

13 A. Nothing occurs to mind. Again, there are
14 thousands of products in which asbestos was used.
15 Most of them have never been subject to testing that
16 was ever published in the open scientific literature.
17 The hazards are associated with the airborne
18 asbestos, not with the particular product giving rise
19 to it.

20 Q. Would you agree with me that different
21 products have different potentials for releasing
22 asbestos when used?

23 A. Sure.

24 Q. Do you know when the first time was that

1 the chemical -- Manufacturing Chemists Association
2 guide for preparation of warning labels for hazardous
3 chemicals had a proposed warning label for
4 asbestos-containing products or asbestos?

5 A. No, I don't. I don't know if they ever
6 did come up with a specific text for asbestos.

7 Q. And you've certainly testified in the past
8 that sellers of raw asbestos weren't necessarily
9 forthcoming with information about their products to
10 their customers; correct?

11 A. Yes.

12 Q. What's your opinion about the first time
13 that Johns Manville put a warning on bags of
14 chrysotile asbestos?

15 A. It would have been late 1968 or early
16 1969, based on the documentation that I've seen.

17 Q. And was that true for all of their
18 asbestos-containing products or just some?

19 A. Just some. Well, that was the asbestos,
20 sacks of asbestos. The -- some of their products
21 actually had warnings a little earlier, 1964.

22 Q. Do you know what asbestos floats are?

23 A. Generally, yes.

24 Q. Short chrysotile?

1 A. Right. They're kind of the shortest,
2 lowest-priced asbestos fibers.

3 Q. Do you know what range the fiber had to be
4 in to be classified as an asbestos short or float?

5 A. No, I don't recall those kinds of details.

6 Q. Do you know when the first time was that
7 Union Carbide put any type of warning on bags of
8 Calidria?

9 A. I think they put some kind of a "try not
10 to breathe the dust" warning in 1968 without telling
11 you what would happen to you if you did breathe the
12 dust. Union Carbide lawyers argued that that's a
13 warning label. I don't consider it a health warning.
14 And I suppose starting in 1972, they started to use
15 the OSHA warning label.

16 Q. You're also familiar with the toxicology
17 report that Union Carbide would sometimes send out to
18 customers or potential customers?

19 A. Yes.

20 Q. Would you agree with me that their
21 toxicology report really tried to emphasize the
22 distinction between their chrysotile Calidria and
23 crocidolite asbestos?

24 A. Well, the -- yeah. The thing seems to

1 have been prepared largely as a reaction to the 1964
2 Selikoff conference and the potential problems that
3 would follow from the standpoint of dealing with
4 customers. And it generally kind of tended to
5 suggest that the recommended exposure limits of the
6 day were adequate to protect workers from the hazards
7 of asbestos dust.

8 Q. Would you agree that they -- that in Union
9 Carbide's toxicology report they attempted to argue
10 that most studies relating to asbestos disease
11 related to crocidolite asbestos and not chrysotile
12 like they were selling?

13 A. Well, I mean, the document says what it
14 says. I don't recall exactly how it was stated.
15 But, you know, it certainly was -- I think it was
16 something that was created to minimize the damage to
17 sales while at the same time not completely denying
18 the potential of asbestos to cause health problems.

19 Q. Would you agree that Union Carbide was
20 trying to persuade current and potential customers
21 that they could safely use Calidria in accordance
22 with the OSHA regulations?

23 A. Yes.

24 Q. Do you know whether Union Carbide ever

1 called on Square D for any reason?

2 A. I don't know if I've ever seen any
3 indication of that.

4 Q. Do you know if Square D was involved in
5 specifying the ingredients of phenolic molding
6 compounds that it used?

7 A. I don't know what -- how that was worked
8 out between the, between the supplier, Reichhold, and
9 Square D as to the specifications and composition of
10 the resin.

11 Q. What about between Square D and Durez,
12 Rogers, Plenco, General Electric, or any of the other
13 suppliers of phenolic molding compounds?

14 A. Same answer. I don't know.

15 Q. Do you know whether any of Square D's
16 customers specified to Square D what they wanted the
17 end plastic products to contain, the products that
18 Square D was actually manufacturing?

19 A. I'm sorry. Can you say that again.

20 Q. Do you know whether any of Square D's
21 customers of their molded plastic products ever
22 specified to them what they wanted those products to
23 be made of?

24 A. No, I don't.

1 Q. Are you aware of any industry standards
2 for the performance of reinforced plastic products?

3 A. No.

4 Q. Do you believe that you've told me what
5 all of your opinions are with respect to Reichhold in
6 this deposition?

7 MR. CRUMPLAR: I'm going to object to
8 that, that there was a question that said that.
9 We've given a disclosure with regard to the opinions
10 that he's going to testify as to.

11 MR. McCAULEY: Well, the disclosure
12 was from quite some time back, before he had the
13 meeting or reviewed any Reichhold documents. It
14 doesn't mention Reichhold. It's pretty useless. So
15 I'm trying to figure out what his Reichhold opinions
16 are that he formulated last night and since then.

17 BY MR. McCAULEY:

18 Q. Have you told me all of those opinions,
19 Dr. Castleman?

20 A. I've attempted to. I mean, basically,
21 Reichhold was a chemical company. They should have
22 known about toxic substances or had people that knew
23 about toxic substances in their employ by the time
24 of, you know, plaintiff's exposures starting in the



1 case; that Reichhold should have -- Reichhold
2 demonstratively was aware of OSHA regulations from
3 the beginning of OSHA asbestos regulations, specific
4 regulations from OSHA on asbestos in the end of 1971;
5 and the company understood, at least in its own
6 operations, the implications of the OSHA standards
7 for its own factories where asbestos was used in
8 making these resin products.

9 That's basically it.

10 Q. And we didn't cover this, but I want to
11 clarify. You haven't looked at any
12 plaintiff-specific information in this case; right?

13 A. Right. My testimony is about the
14 defendants, not about the plaintiffs.

15 Q. You don't have any idea about what the
16 plaintiffs say they might have done with what
17 products and when; right?

18 A. Right. That evidence will come in through
19 other witnesses than me.

20 Q. So you're not offering any opinion that
21 any of these plaintiffs ever used a Reichhold
22 product. You don't know one way or the other, do
23 you?

24 A. Well, it's beyond the scope of my

1 testimony to talk about that.

2 Q. Okay. And before last night, any opinions
3 you had about Reichhold would have just been general
4 opinions about any member of the chemical industry;
5 fair?

6 A. I think so, yes.

7 Q. And since last night and since you
8 reviewed some documents that Mr. Crumplar gave you,
9 you've developed some more specific opinions directly
10 relating to Reichhold; fair?

11 A. Right.

12 MR. McCAULEY: Okay. Those are all
13 the questions I have for you, Dr. Castleman.

14 I pass the witness.

15 MR. CRUMPLAR: I just have a couple
16 follow-up questions.

17 BY MR. CRUMPLAR:

18 Q. Doctor, can you explain what NIOSH is and
19 what their relation is to OSHA, how they assist OSHA?

20 A. Well, the Occupational Safety and Health
21 Act created NIOSH and OSHA. OSHA was in the
22 Department of Labor and was given the authority to
23 issue regulations and enforce them.

24 NIOSH, on the other hand, was placed

1 in the Department of Health, Education, and Welfare
2 and was created for the purpose of advising OSHA in
3 the setting of health standards and generally doing
4 such things as health hazard evaluations in
5 industries where there was concern about the
6 potential hazards to the workers.

7 So NIOSH's inspections would be done
8 without any concomitant authority to regulate;
9 whereas, OSHA always did its inspections, and these
10 were supposed to be unannounced inspections for the
11 purpose of regulating hazards in the industry.

12 That's basically -- and they were
13 created in 1971 actually. The last days of 1970 the
14 law was enacted by Congress, and so OSHA began to
15 function in April of 1971.

16 Q. Doctor, are you familiar with there was a
17 criteria document prepared by NIOSH which was really
18 giving advice to OSHA with regard to the labeling in
19 1972, and NIOSH recommended that the labels on
20 asbestos materials contain the word "danger,"
21 specifically mention the cancer hazard, but OSHA did
22 not adopt that NIOSH recommendation? Can you explain
23 why they did not?

24 A. Yes. Well, the -- some understanding is

1 a minimum standard?

2 A. It was a minimum standard.

3 Q. Doctor, let me just ask this question,
4 another couple other questions real quick.

5 Mr. Madden said that one of the things that Reichhold
6 was doing is they would investigate the hazards of
7 raw materials that they put into new products. Do
8 you think that's a good thing for a company to do?

9 A. Sure.

10 Q. Now, let's assume that in 1965, just in
11 the beginning of 1965, Reichhold started including a
12 new material in its product, asbestos. Had anything
13 happened right before the beginning of 1965 that
14 would give a special notice to a chemical company
15 thinking about incorporating asbestos into the
16 product? Had anything developed in terms of the, I
17 guess, in public health fields dealing with asbestos?

18 And especially a company -- I'd ask
19 you to assume that the company was headquartered
20 right outside of New York City and its manufacturing
21 plant was in Carteret, right outside of New York
22 City. Had anything happened in New York City in the
23 fall of 1964 that might give notice and pause to a
24 company thinking about now including asbestos?

1 included in the notorious Guenther memo. The head of
2 OSHA was a man named George Guenther,
3 G-U-E-N-T-H-E-R. And one week after the asbestos
4 rule was published in the Federal Register, Guenther
5 authored a memorandum that went to the White House
6 that basically said that OSHA, a properly managed
7 OSHA, as he put it, can be useful in the efforts to
8 do fund-raising to raise funds for the reelection of
9 President Nixon. This was a presidential election
10 year.

11 This was also the same month as the
12 Watergate break-in. And the Guenther memo suggested
13 that he would not issue any proposed rules for
14 controversial industries or wouldn't issue
15 controversial rules before the November elections.

16 So, I mean, there was -- this is a
17 political environment in which OSHA and NIOSH and the
18 Environmental Protection Agency were created. And as
19 such, you know, there are limitations both in the law
20 and in its implementation from a public health point
21 of view.

22 Q. Did the OSHA regulations prevent a company
23 from going further, having warnings that were more
24 explicit in terms of the dangers? Or was that simply

1 a minimum standard?

2 A. It was a minimum standard.

3 Q. Doctor, let me just ask this question,
4 another couple other questions real quick.

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14 would give a special notice to a chemical company
15 thinking about incorporating asbestos into the
16 product? Had anything developed in terms of the, I
17 guess, in public health fields dealing with asbestos?

18 And especially a company -- I'd ask
19 you to assume that the company was headquartered
20 right outside of New York City and its manufacturing
21 plant was in Carteret, right outside of New York
22 City. Had anything happened in New York City in the
23 fall of 1964 that might give notice and pause to a
24 company thinking about now including asbestos?

1 A. Yes. It was a major --

2 MR. McCAULEY: Let me just give my
3 objection to the form; argumentative; leading;
4 compound, et cetera.

5 MR. CRUMPLAR: It's cross-examination.
6 BY MR. CRUMPLAR:

7 Q. Go ahead, Doctor. You can answer.

8 A. There was a major conference in New York
9 organized by Irving Selikoff in October of 1964 at
10 the Waldorf Astoria in New York City. And the
11 conference was the subject of media reports as well
12 as considerable attention within industry and
13 representatives from a number of companies -- we
14 don't have a complete list; no such list has
15 survived.

16 But from corporate documents, we know
17 that a number of companies in the asbestos industry
18 were there and that other companies like Union
19 Carbide and DuPont and Exxon also had officials who
20 were -- Exxon's predecessor, I mean -- also had
21 officials who were in attendance at the 1964 asbestos
22 conference in New York.

23 Q. And in terms of an asbestos litigation,
24 how do even defense state-of-the-art witnesses talk

1 about the significance of this conference in terms of
2 eliminating any doubt among industry about the
3 dangers of asbestos?

4 MR. McCAULEY: Objection to form.

5 THE WITNESS: Well, defense experts
6 generally characterize this conference as a watershed
7 in establishing that asbestos exposure could cause
8 cancer, particularly to asbestos product users, such
9 as insulation workers.

10 Yeah. The -- the conference also goes
11 a long way to establish that low-level exposure to
12 asbestos is harmful, with the epidemiological report
13 of Newhouse and Thompson showing a statistically
14 significant association between asbestos exposure,
15 household contact exposure to asbestos as well as
16 occupational, and even neighborhood exposure to
17 asbestos air pollution point sources, all of these
18 being statistically significantly associated with
19 mesothelioma mortality.

20 Q. And one last question. We talked about
21 Science News that reported on this conference. But
22 you mentioned, I think, that just in your general
23 files which have been subject to depositions before
24 that you have files dealing with newspapers. Just

1 explain briefly what the media coverage, especially
2 in the New York area where you have a company such as
3 Reichhold being headquartered in New York
4 metropolitan area, what kind -- if people were simply
5 reading the newspaper like The New York Times, what
6 would they learn about this conference?

7 MR. McCAULEY: Object to form.

8 THE WITNESS: Well, they would learn
9 that mesothelioma was a matter of considerable
10 concern at the time that the conference was held.
11 And subsequent to 1964, Selikoff was featured in
12 many, many articles that were published in The New
13 York Times raising concerns about the hazards of
14 asbestos. Hazards of sprayed asbestos in the
15 construction of skyscrapers in New York was the
16 subject of major reports in the New Yorker magazine
17 in 1968. And Selikoff was a central figure in all of
18 these stories in terms of his comments and, you know,
19 his research findings.

20 MR. CRUMPLAR: Okay. Thank you. No
21 further questions.

22 MR. McCAULEY: I have a couple
23 follow-up.

24 BY MR. McCAULEY:

1 Q. Dr. Castleman, when were the proceedings
2 from the New York conference published?

3 A. They were dated December 31, 1965.

4 Q. And so if you weren't at the conference,
5 the book didn't come out until the end of 1965;
6 correct?

7 A. Yes.

8 Q. And that went into some libraries; right?
9 It wasn't disseminated. It wasn't mailed out to
10 anyone, was it?

11 A. Well, I suppose it could have been mailed
12 out to people who were members of the New York
13 Academy of Sciences, but -- and it could have
14 certainly been ordered from the New York Academy of
15 Sciences. But, you know, I don't imagine that -- it
16 was mostly libraries that would have had regular
17 subscriptions to that journal.

18 Q. Have you seen your designation in this
19 case?

20 A. Yes. I looked at it briefly.

21 Q. Last night?

22 A. Yes.

23 Q. You didn't see it before it was written,
24 though; right?

1 A. No. These things are routinely composed
2 by attorneys without consulting their experts.

3 Q. In the process of making government
4 regulations, I mean, OSHA considers -- OSHA publishes
5 a notice in the Federal Register and says that they
6 want to consider comments from anybody who has any
7 interest in what they're about to regulate; correct?

8 A. Well, yeah. OSHA welcomes comments in the
9 Federal Register from anybody who reads the Federal
10 Register.

11 Q. And NIOSH is one of the organizations that
12 gives OSHA comments, but OSHA's not required to
13 accept anything that NIOSH says; right?

14 A. Well, that's right. OSHA ultimately has
15 the authority to decide in terms of issuing
16 regulations just what the content of those rules is
17 going to be.

18 Q. And the NIOSH health hazard evaluations
19 were done in particular industries; right?

20 A. Well, they were done in particular
21 factories.

22 Q. No. When the Occupational Safety and
23 Health Act was passed, NIOSH prioritized the areas
24 that needed to be studied for potential asbestos

1 hazards; right?

2 A. I don't know that you could say that.

3 NIOSH did some investigations of its own, and some of
4 that information was published. I'm not sure you
5 could say they prioritized. It's not like they
6 devoted single-minded attention to asbestos.

7 They were dealing with an enormous
8 range of health hazards which were, for the first
9 time, subject to regulations to protect workers'
10 health and safety in the American industry. So this
11 is an enormous change that came about in the early
12 1970s.

13 Q. But with respect to asbestos, when they
14 studied asbestos, they went out and did health hazard
15 evaluations in factories that were using raw asbestos
16 to make products; right?

17 A. Not just that. They did investigations in
18 other settings as well. They went into places where
19 asbestos break servicing was done, brake repair work
20 was done. It wasn't just raw asbestos used in
21 manufacturing that NIOSH was limited to doing their
22 health hazard evaluations in. A lot of the
23 evaluations were triggered by requests from the
24 workers for evaluations.

1 Q. And some of those were in factories where
2 they were using raw asbestos; right?

3 A. Some of them were, yes.

4 Q. And some of them were using raw asbestos
5 in the 1970s without any regard for the OSHA
6 regulations. This is mid to late '70s; right?

7 A. Well, I don't know about any regard. But
8 there was certainly widespread disregard for specific
9 provisions of OSHA's regulations that were documented
10 through the 1970s in specific workplaces.

11 Q. And OSHA's not obligated to accept any of
12 NIOSH's recommendations; right?

13 A. Right.

14 Q. And there have been plenty of times in
15 plenty of areas that OSHA rejected or declined to
16 follow some recommendation made by NIOSH; right?

17 A. Oh, sure. This is largely because it's a
18 lot easier for NIOSH to recommend that OSHA regulate
19 something than it is for OSHA to go through the
20 full-blown process of issuing a notice of proposed
21 rule, issuing a proposed rule, holding hearings,
22 evaluating all the pre- and post-hearing extents, and
23 then issuing a final rule and then having to defend
24 the final rule when they get sued by financially

1 affected parties, which is the kind of routine that
2 generally prevails for every OSHA rule-making.

3 Q. At NIOSH or the academics, they can make
4 an academic recommendation that doesn't turn out to
5 be very practical in application; fair?

6 A. Well, that's possible in the case of
7 academics, as you put it, writing articles in
8 scientific journals. They might make recommendations
9 that are not practical. I'm not thinking of anything
10 in particular when I say this, but I'm sure that can
11 occur.

12 Q. Somebody might say, We need to get rid of
13 greenhouse gases or we got to do that. But figuring
14 out how to do it is a whole different issue; right?

15 A. Right. That's right.

16 Q. Do you know -- I think you have told me
17 this before, but you don't know where Square D was
18 based?

19 A. No, I don't. I may have been told, but I
20 don't recall.

21 MR. McCAULEY: Okay. Those are all
22 the questions I have. Thank you.

23 MR. CRUMLAR: Okay. Thank you very
24 much. The deposition is over with.

1 Thank you, Doctor.

2 THE WITNESS: Okay. I waive

3 signature. Have a nice day.

4 (Deposition concluded at 12:10 p.m.)

5 (Reading and signing was waived.)

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C E R T I F I C A T I O N

I, ADAM D. MILLER, Registered Professional Reporter, certify that the foregoing is a true and accurate transcript of the foregoing deposition, that the witness was first sworn by me at the time, place and on the date herein before set forth.

I further certify that I am neither attorney nor counsel for, not related to nor employed by any of the parties to the action in which this deposition was taken; further, that I am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in this action.



Adam D. Miller

Registered Professional Reporter, Notary Public

Barry Castleman

Index: 1..accurate

1		5
1 11:22 12:2 40:19 58:20,21	1971 13:7 15:6,19 53:12,24 55:5,13 78:4 80:13,15	5 11:10,15 49:9,23 52:8,9,12
1/80 58:20	1972 65:14,19 74:14 80:19	50 10:12
10 21:23	1973 42:14,22 44:3,21 54:1,3	500 70:17,18
10th 53:10	1978 44:2	50s 65:2
12:10 91:4	1979 38:24	51 10:3,12 40:10
12th 34:10,16	1980 25:23 38:24 58:20,22	52 10:3,12 49:24 58:11,15
13 37:23	1981 40:4 50:9 53:13	
15 37:18 70:17		
15th 31:5	2	6
16 30:10	2 11:19 59:17	60s 39:13 65:3
16th 30:21	2010 3:8	
18th 50:9	2011 4:3	7
19 21:23	24 38:7	70s 12:23 39:14 89:6
1910 59:8	25 5:14 37:16 38:10	78 5:11
1910.1002 59:22	26th 34:10	7th 30:16 67:9
1910.93(a) 44:14	28 42:14	
1920s 33:11	28th 44:2,3,21	8
1930s 26:21 27:1 31:19 35:17 37:1	297 67:11	8,000 52:1,6,17
1935 31:6,7 33:20 34:23 38:17	2nd 3:8	80s 12:23
1940s 27:1 39:10 64:12 65:2		
1948 30:9	3	A
1950s 13:12	3 59:20	ability 41:4
1954 29:24 30:10, 31:21 32:2,4,11	3/80 58:20	academic 90:4
1960s 12:23	30 5:14	academics 90:3,7
1963 71:8,11	30s 33:12	Academy 86:13,14
1964 30:16 67:9 68:6 69:14,22 71:18 72:8 73:21 75:1 82:23 83:9,21 85:11	31 86:3	accept 87:13 89:11
1965 25:23 40:3 82:10,11,13 86:3,5	31st 69:21,22	access 26:12,13
1966 21:24 23:5 53:10,19	35,000 51:20,21 52:16	accidents 34:13
1968 21:7 73:15 74:10 85:17	350 52:2,3,6	accordance 75:21
1969 21:7 73:16		account 64:20
1970 80:13	4	accumulated 30:5
1970s 11:7,14 25:21 45:3 88:12 89:5, 10	4 52:7	accumulation 8:21
	40 22:13	accurate 23:9
	40s 64:4	



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Index: acknowledge..August

acknowledge 45:9	ahead 83:7	34:6,8,16,20 37:5 67:15 68:1 71:2 72:9
acknowledges 8:12	air 24:22 41:7 66:12 71:16 84:17	article's 22:4
acquaintance 36:16	air-pollution 72:6	articles 30:4 35:23 85:12 90:7
acquire 20:1	airborne 50:20 72:17	asbestos 5:16 9:20,24 10:2,9,12 11:2,10,11,15,20,22 12:1,3,6 13:12, 20 14:4,9 15:3,8,11,13,19,24 22:1,3, 15,20,23 23:5,15 26:10,20 27:1 28:17 29:1,8,13 30:8,9,13,15 31:18,23 32:1, 5 35:8,19 37:10 40:5,8,15,16,23 41:2, 5,8 44:4,20 45:2,5,7,12,16 46:15 47:18 49:9,14,17 50:20 51:12,20,21, 22 52:3,12 53:14,19,21,23 54:5,6 55:3, 56:19,23 58:3,11,15 59:7,22 62:17 63:8,12,13 65:6,8,15,22 66:11 67:12,20 68:17 69:12,16,17 70:5,7, 10,12,19,20,24 71:9,16 72:11,14,18, 22 73:4,6,8,14,19,20,22 74:2,4,23 75:7,10,11,18 78:3 4,7 80:20 81:3 82:12,15,17,24 83:17,21,23 84:3,7,8, 12,14,15,17 85:14 87:24 88:6,13,14, 15,19,20 89:2,4
act 58:6 79:21 87:23	alarm 72:5	asbestos-containing 11:6,16 13:10 14:3,6 45:1 47:2,10 49:2,8 51:4 53:1 57:7 59:2,3 60:8,16 73:4,18
action 34:9 66:13	allegedly 10:10 17:6,13	asbestos-related 71:4
activities 41:9 42:13,16 54:20	alluded 42:17	asbestosis 22:14 31:8 32:23 33:1,7 35:17,24 38:7 67:21 68:3,8
acts 23:20	ambient 71:24	ascribe 23:6
actual 53:18 72:7	amendment 34:11 37:15	assembled 6:12
acute 64:15	American 23:12,13 88:10	assist 79:19
ad 20:1,2,9,14,17,21 21:3 39:17	Americans 22:13	association 39:2,20 73:1 84:14
add 8:10 9:7 34:17	amosite 68:18	assume 31:20 52:3 56:2 57:4 82:10, 19
additional 9:5 53:13,15 54:9	amount 48:7	Assuming 55:12
additionally 31:16 54:1	analyses 50:4	assure 23:14
adequate 75:6	analysis 24:22 27:18 41:8	Astoria 83:10
administered 35:2	animals 68:20	attached 44:16
Administration 44:15	announced 31:2	attempted 75:9 77:20
adopt 34:11 80:22	annual 28:1	attendance 83:21
adopted 39:20	answering 49:6	attention 32:19 65:2 83:12 88:6
adopting 25:10	anticipated 65:21	attorneys 87:2
advanced 33:24	apparently 38:18 50:24 68:18	August 3:8 50:9 51:12
advertisement 19:21	appears 46:3,6 48:17 68:15	
advertiser 53:10	application 42:8 54:4,23 90:5	
advice 80:18	applied 15:22	
advise 14:8	apply 46:21	
advising 80:2	approach 35:16	
affected 90:1	April 80:15	
affecting 70:11	area 35:18 49:19 85:2,4	
age 70:17	areas 42:11 61:5 71:15 87:23 89:15	
agencies 11:24 23:20 35:3	argue 75:9	
Agency 81:18	argued 74:12	
agents 56:17	argumentative 83:3	
aggregate 66:7	arising 18:22	
agree 23:4 25:9 27:4 37:5 38:2 40:14 58:5,12 59:5 61:19 66:4,24 67:4 69:2 74:20 75:8,19	artfully 25:16	
	article 20:19 22:3,8,10 29:23 33:20	

Barry Castleman

Index: author..charged

author 50:16	better-known 27:19	call 26:5
author's 50:16	big 68:6	called 17:22 22:3 30:5,6 76:1
authored 81:5	bigger 27:16,19 28:5	calls 44:1
authorities 22:12	bit 12:13	cancer 21:24 65:1 67:12,18,23 70:7 80:21 84:8
authority 79:22 80:8 87:15	blow 64:22	cancer-causing 30:8
authorize 24:16	blur 12:21	capable 24:22
Autopsies 70:17	blurb 30:24	Cape 70:18
autopsy 22:21 71:10	board 61:9	car 20:10
average 22:23 23:5,14	bodies 22:20 70:19 71:10	Carbide 7:13,15,19 28:13,18,22,23 29:4,7,11 47:18,21 74:7,12,17 75:19, 24 83:19
Avoid 63:13	bodily 63:14	Carbide's 75:9
Awaiting 22:3	book 5:15,18 7:15 8:12 29:4 86:5	carcinoma 68:9
aware 11:9,12,13,17,18 12:22 13:2 17:4 32:7 39:4 45:9,13,15 47:17 55:6, 7,9,13 56:20 59:12 60:14,19 62:4,16, 17 77:1 78:2	books 25:10	card 48:4
awareness 44:20 54:22	bottom-line 32:20	care 29:17
awful 14:16	boxes 12:24	careful 14:5
B		
back 20:12 26:21 27:1 30:9 31:19 33:11 38:14 39:10 64:3,11 65:2 71:8 77:12	break 88:19	carefully 46:5
bagging 54:13	break-in 81:12	Carolina 31:4,9,10,21 32:8 33:10,24 34:9 36:19 37:7 38:14
bags 73:13 74:7	breathe 74:10,11	carried 54:20
Bakelite 60:24	Breathing 63:13	Carteret 50:11 82:21
BARRY 3:1	briefly 85:1 86:20	case 5:8 10:10 12:9 13:3 14:1 15:2,14 16:22 29:15,20 30:2,3,12,14 31:15 41:20 51:10 54:21 57:5,23 63:7 71:20 78:1,12 86:19 90:6
based 19:24 20:6 22:19 26:22 66:14 73:16 90:18	British 68:4	cases 5:23 17:24 22:13 28:21 36:6
basic 72:5	broadcasting 20:22	Castleman 3:1,6,13 8:9,10 47:9 77:19 79:13 86:1
basically 68:4 77:20 78:9 80:12 81:6	bronchial 68:9	caused 68:19
basis 39:17	brought 7:5	caution 63:12 65:8,11
batch 52:10	building 15:17	cavities 37:20 68:19
began 80:14	bunch 48:6	Cedar 13:3
beginning 58:22 78:3 82:11,13	business 4:16 12:15 14:17	central 85:17
begs 54:17	businesses 28:1	cetera 59:23 65:9 83:4
belief 32:6	byssinosis 38:12	change 49:10 88:11
benefit 67:3	bystander 71:22	characterize 84:6
C		
C-a-r-t-e-r-e-t 50:11		charged 66:5
Calidria 74:8,22 75:21		
California 33:8		



Barry Castleman

Index: charges..corporations

charges 32:21	common 35:16 64:3	concluded 91:4
Charlotte 31:3	comp 31:11 33:1,6	concomitant 80:8
chart 48:8	companies 4:16 14:14 15:16 16:1 17:4 22:2 26:9,19 27:15 28:17 44:23 45:3,6,7,16 51:3 83:13,17,18	conditions 68:5
check 40:1	company 4:15 12:12 16:4 17:22 18:13 21:10 26:12 32:18 51:11 53:24 57:8 58:7 77:21 78:5 81:22 82:8,14, 18,19,24 85:2	conference 30:17 68:6 75:2 83:8,11, 22 84:1,6,10,21 85:6,10 86:2,4
checked 27:22	company-specific 19:20	confidential 14:18
chemical 4:5,14,15,16 8:23 9:15 17:23 19:15,18 21:6,7,8,9,11,15,16, 21 22:2 37:21 38:3 39:1,20 43:6,12 53:11,18 64:3,11,19 73:1 77:21 79:4 82:14	compare 43:15	confirm 15:1 24:17 34:4 50:19 53:17
chemicals 31:2 50:10 57:1,2 73:3	comparison 44:1	confirmed 18:20
Chemists 73:1	compensable 31:8 32:15,23 33:3,21 34:13,18 37:15	Congress 23:21 80:14
chest 68:19	compensation 34:11 35:1 38:17	connected 63:16
chloride 12:8	competitors 43:18	connection 32:2
chronic 22:13	complete 8:3 43:22 53:20 83:14	considerable 83:12 85:9
chrysotile 68:18 73:14,24 74:22 75:11	completely 75:17	considered 11:11,15
circulated 21:10	completeness 8:7,10	considers 87:4
circumstances 14:2	compliance 24:17 42:18	construction 15:16,22 16:9 85:15
citation 69:15	comply 24:1, 55:4,16,21	consulting 87:2
cited 4:21 24:3,13 28:21,22 29:3	complying 55:1,11	Consumer 23:19
city 70:11 82:20,22 83:10	components 12:24 16:13	contact 20:16 37:20 38:5 84:15
city-dwelling 71:5	composed 87:1	contained 9:19,23 10:9 11:2,19 12:6 13:20 14:4,21 15:3,18 22:8 40:10,12 44:14 49:9,23 65:14
claim 17:16	composition 13:22 48:19 76:9	content 40:17 41:2 49:14,17 65:13 87:16
clarify 78:11	compositions 41:2	context 42:17
Clark 50:10	compound 40:3 41:17 42:2 43:10, 16,17 47:13 49:4 50:21 60:9,15,17 61:3,18 62:5,19 83:4	continued 39:13
class 19:23	compounds 10:21 11:1 12:6 15:15, 17 16:15 17:5,14,17 18:2,5,16 38:21 41:5,12 46:24 47:2,11 53:2 56:5,15 57:7 59:3 60:20 61:12 62:14 63:1,8 72:12 76:6,13	continuously 39:16
classified 20:21 74:4	concentration 50:20	contractor 16:9
clear 12:9	concentrations 63:3	contractors 15:22
coated 70:20	concern 38:13,15 56:18 71:11,17 80:5 85:10	control 21:17
codes 24:20 25:1 26:5	concerns 85:13	controversial 81:14,15
comment 35:24		conversation 18:12
comments 85:18 87:6,8,12		convinced 22:11
commercial 52:10		copy 21:3 44:16
commission 23:19 32:9 34:21,23 35:1,4		corporate 7:11 9:6 17:1 19:23 26:22 41:19,24 46:10 53 9,12 58:6 83:16
committee 35:6 39:8		corporation 18:9 20:22
		corporations 5:16



Barry Castleman

Index: correct..discussion

correct 7:16 12:24 13:13 16:17 24:2
26:3 29:4 35:14 37:12 38:8 40:6,13
44:5,17,21 46:2,6 50:23 55:9,14,17
56:7 58:9 60:5 61:9,10 62:1 65:18,19,
23 67:3 68:13 69:1,7,9 70:14,22
73:10 86:6 87:7

Cost 48:1

Council 70:5

counsel 6:3 8:11,13

count 28:2

counted 12:3 19:14

country 3:7

couple 20:9 30:22 40:1 47:24 66:16
79:15 82:4 85:22

cover 78:10

coverage 85:1

covered 3:15, 17:19

create 56:22 62:24

created 23:20 56:5 62:18 75:16
79:21 80:2,13 81:18

creating 63:13

criteria 13:22 80:17

crocidolite 68:18 74:23 75:11

crocidolite-containing 18:15

cross-examination 83:5

Crumplar 3:4 4:6 6:4,5,13,18,21 7:4,
7,22 8:8,19 9:3,9,11, 13:14,17 17:11,
12,18 27:7 37:6 47:1,5,19 48:15 51:7
57:10 58:1 63:22 64:6 65:10 66:21
70:2 71:6 77:7 79:8,15,17 83:5,6
85:20 90:23

cumulative 66:6

current 66:19 75:20

customer 53:1

customers 57:6 59:2 73:10 74:18
75:4,20 76:16,21

cut 52:2

cutting 37:21

CV 3:10

D

D's 76:15,20

damage 75:16

danger 64:17 80:20

dangerous 15:19 57:2

dangers 81:24 84:3

data 10:5,13,15 40:9 48:11 57:6,16,
17,22 58:1,7 59:1,6,14 60:4 63:10

date 32:2 46:11 48:5 57:10 58:19

dated 50:9 86:3

day 20:11 52:20 75:6 91:3

days 80:13

deal 30:6

dealing 35:16 36:17 75:3 82:17 84:24
88:7

dealt 39:8

December 53:24 86:3

decide 87:15

declined 89:15

decomposed 72:3

decomposition 72:4

defend 89:23

defendants 78:14

defended 3:7

defense 8:11,12 83:24 84:5

definite 70:6

definition 9:7 11:5

degrees 68:8

Delaware 3:7,8,9,11 6:17,19 25:18

delighted 8:11

demand 53:1

demonstratively 78:2

denying 75:17

department 34:1,3,5 44:16 79:22
80:1

depend 63:4

depends 13:18

deposed 3:6

deposition 3:8,17 4:13 5:2 12:18,20
16:24 41:21 77:6 90:24 91:4

depositions 3:9,12 5:10,11 84:23

describe 42:24 48:3

description 9:1

designation 86:18

desired 8:7

detail 42:19 43:6 62:10

detailed 54:1

details 74:5

determination 66:2

determine 66:12

determining 50:20

develop 68:9

developed 68:7 79:9 82:16

devoted 50:4 88:6

die 68:2

difference 43:9 49:21 50:1 61:2

dinner 6:23 7:2,24 8:19

direct 59:7

directly 22:15 79:9

director 50:10

disabilities 34:13

disable 64:15

discerned 36:14

disclose 14:8

disclosed 15:4

disclosure 14:20 57:18 77:9,11

discuss 7:15 22:8 29:7

discussed 9:10 35:22

discussing 47:22

discussion 3:22 55:23



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Barry Castleman

Index: disease..experts

disease 31:9 32:8,23 33:5 35:12,20
36:2,23 37:11 38:13 56:16,23 71:1
75:10

diseases 16:5 32:16 33:3,14,15,21
34:12,17 37:14,16

disregard 89:8

disseminated 86:9

distinction 74:22

doctor 68:4 79:18 80:16 82:3 83:7
91:1

doctors 16:4 35:23 36:15

document 10:18 12:9 19:14 31:10
42:20,22 49:5 50:8 51:16 75:13 80:17

documentation 4:20 10:14,20 20:7
41:3 52:24 54:16,19 73:16

documented 54:2,3 89:9

documents 5:20,23 6:6,9 7:2,4,8,11,
12,19,23 8:3,6,9,11,19,22 9:2,6 10:2,
6 12:7 14:24 15:1 16:21 17:15,20
18:4,8 19:6,9,16,23 26:22 28:13,23
29:4,6,10,17 41:20,24 42:5,7,23
43:22,24 47:22,24 50:7 53:3,9,12,13,
16 54:10 77:13 79:8 83:16

doubt 84:2

draw 11:24

due 37:20

duly 3:2

duplication 3:13

Dupont 83:19

Durez 17:22 18:5,8,14,18,22 43:18
76:11

dust 33:14,15 35:7 37:9 38:3 56:5,7,
14, 62:18,24 63:3,5,13 74:10,12 75:7

dusts 37:21

dwellers 22:21 70:11 71:10

E

earlier 39:24 64:2 73:21

early 35:11 36:23 37:11 73:15 88:11

easier 89:18

easily 36:14

East 70:7

Education 80:1

effect 38:23

effort 14:7 39:16 43:15

efforts 81:7

eight-hour 51:19 52:18,22

elaborated 67:15

election 81:9

elections 81:15

Electric 26:17,24 27:6,11 28:5 60:19
76:12

electrical 16:12 26:15 27:6,10,14
28:4

electronic 12:23

elements 48:18

eligible 33:6

eliminating 84:2

emerged 43:23

emergency 53:21,22 55:5

emphasize 74:21

employ 4:17 77:23

employed 26:3

employees 15:8,10,12 35:7,11 37:9,
10 42:12 55:13

employer 13:10 14:11 25:14 55:2

employers 15:7 24:10 25:5 26:6
45:15 66:5

employing 16:3

enacted 80:14

encounters 45:6

end 22:15,24 35:13 44:4 61:17,24
70:7 76:17 78:4 86:5

enforce 79:23

enforceable 25:4

enforcement 24:5

engineer 21:8

Engineering 21:9

engineers 21:10

enormous 88:7,11

environment 81:17

Environmental 81:18

epidemic 70:24 71:3,13,21

epidemiological 84:12

equipment 26:16 27:6,10,14 28:4

establish 33:4 84:11

established 24:21

establishing 84:7

evaluate 46:15

evaluating 89:22

evaluations 80:4 87:18 88:15,22,23,
24

evening 6:8,10,13

Eventually 33:17

evidence 21:1 33:4 36:7 41:20 60:14
78:18

exact 40:24

examinations 36:21 54:13

examine 35:6 37:8

examined 3:2

examples 51:2

excepting 26:10

exceptional 36:20

excerpt 19:14 29:22,23 30:11

excerpts 19:18 21:21 38:22

excuse 55:11

existed 24:20

expect 26:1 40:21

expected 55:20

experience 18:22

expert 63:23

expertise 4:18 16:2

experts 84:5 87:2



Barry Castleman

Index: explain..greenhouse

explain 79:18 80:22 85:1
explained 67:14
explicit 33:7 81:24
explosion 62:23 63:3 64:14
exposed 15:8,10,13 35:18
exposing 56:10
exposure 24:18 40:15,19 49:22 50:2, 3,5 66:6,7,11 71:5 72:12 75:5 84:7, 11,14,15,16
exposures 24:10 25:14,19 40:24 41:8 64:15 66:4,8 67:20 71:22,23 72:1 77:24
expressed 4:13 5:3, 9:8 71:11,17
extent 18:20 39:15 53:8,11 63:5 64:12
extents 89:22
external 37:19
extremely 46:5
Exxon 83:19
Exxon's 83:20
eyes 37:19

F

face 10:18
facilities 25:23 51:3 55:2
facility 13:3,6 17:17 41:18 42:3 43:2 46:16,22,23 56:4
fact 8:12 57:20 69:11
factories 78:7 87:21 88:15 89:1
factory 64:16,17 66:11,12 70:8
fair 49:4 79:5,10 90:5
fall 82:23
familiar 11:5 12:4,11 17:21 18:10 43:13 80:16
familiarity 54:10
featured 85:11
federal 15:6 53:20 55:14 60:5 81:4 87:5,9

feel 47:4
fiber 74:3
fibers 63:12 65:8,22 70:20 74:2
field 4:18 21:16
fields 82:17
figure 14:13 15:7 42:21,23 56:7 77:15 85:17
figures 27:22
figuring 90:13
file 30:5
files 19:19 21:2 84:23,24
final 61:8 89:23,24
financially 89:24
find 15:12
finding 71:9
findings 85:19
Fine 61:21
fire 62:22 63:2 64:14
float 74:4
floats 73:22
Florida 70:18
folks 4:17
follow 75:3 89:16
follow-up 79:16 85:23
foreseeable 65:24
form 4:6 9:3 53:15 61:13 83:3 84:4 85:7
formaldehyde 32:5 56:21 61:23
formaldehyde-producing 31:3,22
formed 53:6
forming 29:15
formula 48:18
formulated 77:16
formulation 48:5 61:6
formulations 9:22 40:3,4,11 49:3,9, 16,18

forthcoming 73:9
found 19:18 21:2
four-page 45:22 46:3
free 47:4
freely 15:4
front 20:11
full-blown 89:20
fumes 37:22
function 64:21 80:15
functional 40:22
fund-raising 81:8
funds 81:8

G

G-u-e-n-t-h-e-r 81:3
gases 37:22 90:13
gave 7:8 37:6 66:21 79:8
GE 27:15
general 3:18 26:17,24 27:5,11 56:5 60:19 76:12 79:3 84:22
generally 8:24 12:22 43:20 63:2 73:23 75:4 80:3 84:6 90:2
gentleman 44:9
George 81:2
gist 67:19,20
give 8:9 9:1 34:22 36:10 82:14,23 83:2
giving 80:18
good 25:3 57:21 82:8
government 24:16,21 35:2 36:18 87:3
grades 10:24 11:2
granulated 10:3
great 30:6
greater 64:13 65:22 72:5
greenhouse 90:13



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Barry Castleman

Index: Guenther..instructions

Guenther 81:1,2,4,12
guess 9:1 13:18 29:24 51:13 82:17
guide 73:2
guideline 39:11,13
guidelines 24:4,13 25:3,12

H

half-inch 8:23
hand 79:24
handed 63:16
handling 4:17 55:20,22
happen 67:6 74:11
happened 82:13,22
happening 21:13
happy 18:24
hard 15:20 37:24
harm 63:14
harmful 84:12
harmless 12:2
Hartford 50:8,9 51:6
hazard 21:24 38:4 56:12 64:23 80:4, 21 87:18 88:14,22
hazardous 59:17 73:2
hazards 13:11 21:17 26:7,10,20, 28:24 31:18 57:19 63:3 64:14,18,21, 24 65:1 72:11,17 80:6,11 82:6 85:13, 14 88:1,8
he'll 8:13
head 81:1
heading 44:6
headings 59:17
headline 67:15 68:11
headquartered 82:19 85:3
headquarters 46:11,14
health 4:19 16:3 22:11 26:2,20 44:13, 15 56:11 64:24 67:11 74:13 75:18 79:20 80:1,3,4 81:20 82:17 87:18,23

88:8,10,14,22
heard 3:24 12:17 18:3,17 60:2
hearings 89:21
held 3:22 55:23 85:10
helpful 29:14
high 63:4
highest 58:14,16
hindsight 67:4
hoc 39:17
holding 89:21
homes 15:17
hope 3:14
hotel 6:17
hours 7:1
House 81:5
household 84:15
huge 71:13
hundred 40:17
hundreds 24:23
hygiene 34:1,2,5
hygienist 50:14
hygienists 16:4

I

idea 52:17 63:15 67:24 78:15
identification 10:23
identify 41:23
ignorance 45:1 55:10
imagine 4:19 13:24 14:1 45:14 86:15
immediately 20:1
implementation 81:20
implications 32:20 78:6
implied 15:11
imposed 15:6,9
inch 8:22

include 24:15 34:12
included 81:1
including 8:22 47:6 82:11,24
inclusion 33:7
incomplete 57:18
incorporating 82:15
incorrect 22:19 23:23 45:24 46:7
increase 70:6
increased 22:1
increasing 40:22
indication 34:22 49:13 76:3
industrial 16:3 32:9,16 34:1,2,5,21, 23,24 35:3 45:8,17 50:13
industries 33:16 35:7 36:22 37:9 38:14 80:5 81:14 87:19
industry 9:16 20:23 21:7,12,13 23:12,13 24:1,4 27:5 28:4 33:11 36:12,13,16 43:12 62:10 64:3,11,19, 20 77:1 79:4 80:11 83:12,17 84:2 88:10
Infection 37:18
inference 22:19
inferences 22:23
inflammation 37:19
information 4:4 9:6 16:19 20:15 26:13 31:21 47:9 54:1,2 55:22 60:9 72:7 73:9 78:12 88:4
informed 13:19
ingredients 12:5 58:8,10 59:18 76:5
inhaled 38:4
injected 69:3
injections 68:17,23
innumerable 3:6
insidious 64:24
inspections 24:17 80:7,9,10
inspectors 24:16
installation 31:3,22
instructions 39:9

Barry Castleman

Index: insulation..lowest-priced

insulation 32:1 84:9	June 51:13	left 33:3 66:1
insurance 32:20 51:3	junior 21:7	legal 56:8
intended 41:14		legislature 34:9
interest 87:7	K	letter 44:3 45:21 50:17
intermediate 61:18	kind 12:20 17:8 25:4 38:17 39:16	levels 25:15
internal 7:10 19:6,9 28:18,22	40:22 43:20,21 44:1 48:18,22 49:6	liabilities 32:21
interpreting 46:21	50:3,4 65:2 74:1,9 85:4 90:1	liability 32:21
investigate 82:6	kinds 21:13 36:17 45:6 64:18,21,23	libraries 86:8,16
investigations 88:3,17	74:5	limit 24:2,10,11 41:10
involve 40:7	Kingdom 68:5	limitations 81:19
involved 10:10 12:8 40:5 44:24	knew 15:1 16:4 26:9 28:24 31:17	limited 88:21
57:19 76:4	77:22	limits 24:18 25:4 75:5
involving 28:22	knowing 21:11 52:21	linings 72:6
iowa 13:4 25:19,21 32:22 33:1	knowledge 5:16 19:23 26:2,24 53:18	liquids 37:22
iron-containing 70:20	61:6	list 24:23 25:13 33:2 42:13 83:14
irritating 37:21 38:6	knowledgeable 17:1	listed 25:12 37:14,16 48:6
Irving 83:9	L	lists 38:7
issue 8:23 19:22 21:24 22:7 31:17	label 39:21 60:16 62:14 64:7 65:11	literature 35:22 72:10,16
53:10 79:23 81:13, 90:14	66:2 73:3 74:13,15	litigation 43:23 45:6 62:3 83:23
issued 43:21 63:17	labeling 64:11 65:13,17 80:18	live 67:12,17
issues 62:17,18	labels 60:12 63:7,11,20 73:2 80:19	lived 67:22
issuing 87:15 89:20,21,23	Labor 44:16 79:22	locations 47:15
J	laboratories 24:20,21	London 70:6,8
J-a-n-s-e-n 42:15	lack 36:6	long 6:24 36:11 68:8 84:11
J.C. 68:13	language 65:7,17	long-delayed 64:24
Jacobs 9:11	largely 75:1 89:17	longer 67:12,17,22
Jansen 42:15 46:14	late 73:15 89:6	looked 45:21,22 46:4 48:16 57:24
January 4:3 58:20	law 3:2 25:11,17,20 33:8 34:11,17	78:11 86:20
jargon 43:12 62:9	35:1,5 37:7 38:17 39:21 55:8,10,11	lot 14:6,16,17 42:5 43:12 52:15 88:22
Jersey 50:11 51:1	80:14 81:19	89:18
jobs 54:15	laws 23:24 24:10,14 25:10,13 26:2,5	lots 30:4
Johns 73:13	33:1 35:2	low 67:21
joint 15:15,17	lawyers 74:12	low-level 84:11
journal 8:24 86:17	lead 71:12	lowest 58:16
journals 90:8	leading 83:3	lowest-priced 74:2
	learn 85:6,8	
	leave 8:6	

Barry Castleman

Index: lung..nature

lung 56:16 70:7,19
lung-related 38:13
lungs 22:20 70:11 71:10

M

Madden 44:10,11 46:14 82:5
Madden's 45:19 51:16 58:23 62:12 63:18
made 9:18,19 18:6,15 27:14 28:17 29:11 31:8 32:5,22 33:21 43:8,15 47:16 61:22 76:23 89:16
magazine 19:15,18,22 20:1,2,5,23 21:2,3,6,16,21,24 53:18 85:16
magazines 21:14
mailed 86:9,11
major 68:17 83:1,8 85:16
majority 49:8
make 8:2 20:14,19 49:21 50:1 66:2 88:16 90:3,8
makes 67:16 68:10
making 49:13 52:10,22 54:5 78:8 87:3
man 22:24 81:2
managed 81:6
manifest 38:16
manner 41:13,16 42:24
manual 64:4
manufacture 14:12 45:17
manufactured 10:9 11:1 12:23 18:1 41:17 42:2 43:1,16,18 46:24 47:10,12 60:20,23
manufacturer 16:12,16 27:6,11 43:7 60:15
manufacturers 26:16 39:2,20
manufacturing 16:16 25:23 26:12 44:24 45:12 54:5 55:3 63:10 73:1 76:18 82:20 88:21
Manville 73:13
March 34:10 42:14 44:2,3,21 54:3

market 22:1 27:18 28:5
marketed 14:7
material 6:11 10:4,13,15 16:16 17:8 18:18 38:6 40:9 41:22 43:21 45:8,17 48:11 57:5,11,17,22,24 58:7 59:1,6,14 60:3 61:12 64:16 82:12
materials 8:18 12:10 14:12,13,19 28:12 41:15 48:19 56:12 57:19 60:22 71:14 72:3 80:20 82:7
math 52:5
matter 85:9
matters 22:7 28:8
Mccauley 3:23 4:11,22,24 6:20 8:16,17 13:16 14:10 16:6,8 21:18,20 24:6,8 25:6,8 27:9 37:2,4 47:3,8 56:1 57:12 63:24 65:4,12,16 71:19 77:11,17 79:12 83:2 84:4 85:7,22,24 90:21
means 20:4 52:3
measurements 50:3
measures 27:24
measuring 50:5
media 83:11 85:1
medical 22:12 33:4 35:6 36:3,14,20 37:7 54:13
meet 6:14,21,24
meeting 9:3,9 77:13
melt 61:12 62:6
member 9:15 28:10 79:4
members 20:23 86:12
memo 44:7,9,13 45:22,23 81:1,12
memorandum 42:14,18 46:3 81:5
memos 54:19,21
men 16:3
mention 5:17 77:14 80:21
mentioned 25:1 28:14 39:1 47:19 69:17 84:22
mentioning 7:19
mesothelioma 18:22 30:17 69:3,15 71:13,21 84:19 85:9

mesotheliomas 68:19,23
met 13:21
method 42:1
metropolitan 85:4
Miami 70:18 71:1
Micarta 60:24 61:3,7,17,22
mid 89:6
mild 22:13
mind 67:5 72:13
minimal 3:14
minimize 75:16
minimum 60:11 82:1,2
missed 30:20
mistake 69:5
moderate 68:7
mold 62:6
molded 76:21
molding 10:21,24 12:5 16:15 17:5,14,17 18:2,5,16 38:20 40:2 41:5,6,11,17 42:2 43:10,16,17 46:24 47:2,11,12 48:20 49:4 50:21 53:2 56:4,15 57:7 59:3 60:8,15,17,20 61:3,11,18 62:5,14,19 63:1 72:12 76:5,13
monotone 40:22
month 52:23 81:11
moral 56:10
mortality 84:19
mounting 61:9
MSDS 57:20
multiple 66:10

N

named 44:9 81:2
names 14:17 27:19,20 35:3
nasal 37:20 38:4
National 33:18,19
nature 63:5

Barry Castleman

Index: NC..period

NC 33:21
necessarily 20:13 32:12 57:15 73:8
needed 45:13 55:18 64:20 87:24
neighborhood 71:5,23 84:16
neoplasias 71:4
Newhouse 84:13
news 21:9,11 33:18,19 84:21
Newsletter 66:17 67:9 69:20,23
newspaper 20:11,21 29:24 30:4 85:5
newspapers 20:10 30:6 84:24
nice 91:3
night 6:22 7:23 8:4,20 9:3,10,18
 18:12 19:10 28:13 31:12 33:19 37:6
 53:7,16 66:22 70:2 77:16 79:2,7
 86:21
NIOSH 11:5,9,20 79:18,21,24 80:17,
 19,22 81:17 87:11,13,18,23 88:3,21
 89:16,18 90:3
NIOSH'S 80:7 89:12
Nixon 81:9
non-asbestos 47:12
non-fibrous 72:4
nonetheless 32:7
nonworkers 71:1
North 31:4,9,10,21 32:8 33:10,24
 34:9 36:19 37:7 38:13
not-inappropriate 58:14
notice 22:7 26:6 82:14,23 87:5 89:20
notion 35:19
notorious 81:1
November 67:9 81:15
number 28:18 33:14,15 83:13,17
numerous 69:17

O

object 4:22 8:16 16:6 21:18 25:6 27:7
 37:2 85:7

objection 4:6 47:4 65:12 71:6 83:3
 84:4
obligated 3:12 55:3 89:11
obligation 15:7,9,12 56:6,9,10
occasionally 18:15
Occidental 17:22
occupational 4:18 16:2,5 32:8 33:5,
 21 34:12,17 44:15 59:22 65:1 79:20
 84:16 87:22
occur 69:13 90:11
occurrence 70:6
occurs 72:13
October 30:16 31:5 69:21,22 83:9
offer 43:24
offering 78:20
office 6:19
officials 83:19,21
oils 37:21
open 31:1 33:3 72:16
opened 32:4
opening 32:14
opens 31:20
operate 64:21
operation 31:4
operations 78:6
opinion 3:18 9:16 13:9 45:11 49:16
 55:2 56:6 60:7 67:10 73:12 78:20
opinions 4:4,13 5:3,9 9:4,8,11,12
 26:8 29:15 30:12 31:15 49:2, 51:10
 53:6,7,13,15 77:5,9,15,18 79:2,4,9
opportunities 22:2
opportunity 40:18 67:22
opposed 43:1 49:23
oral 37:20
order 55:20
ordered 86:14
orders 52:19

organizations 28:9 87:11
organized 83:9
organizing 30:18
OSHA 11:13,20 13:7 15:6,21 23:17
 42:8,18 44:15,20 45:2,9,13, 46:20
 53:23 54:4,11 55:1,4,14 59:7 60:3,5
 65:3,5,14,18 74:15 75:22 78:2,3,4,6
 79:19,21 80:2,9,14,18,21 81:2,6,7,17,
 22 87:4,8,12,14 89:5,15,18,19 90:2
OSHA'S 87:12 89:9,11

P

P-h-e-n-o-l 56:21
p.m. 91:4
paid 19:21
paper 20:15,19
paragraph 44:8,12,18
part 20:24 41:21 67:10
parties 90:1
pass 79:14
passages 38:4
passed 87:23
past 4:19 7:13 9:8 26:16 73:7
pause 82:23
pay 20:15
paying 32:18
PEL 65:22
penalized 25:5
penalties 24:15
people 14:8 28:24 29:19 50:3 67:17
 77:22 85:4 86:12
percent 10:2,3,12 11:10,15,19,22
 12:2 22:13 40:10,18,19,23 49:9,23,24
 52:7,8,9,12 58:11,15
percentage 52:6 58:15
percentages 40:11
performance 77:2
period 25:21 30:7

Barry Castleman

Index: periodic..publication

periodic 54:12	portion 59:21	problems 56:15,23 75:2,18
person 6:14 17:1 33:5	possibility 18:17	procedures 29:13
personnel 50:21	post-hearing 89:22	proceedings 86:1
persons 70:17	potential 13:11 32:21 40:15 42:8 49:22 50:2 56:11 62:16,17 74:18 75:2,18,20 80:6 87:24	process 41:6 42:10 43:6 45:12 87:3 89:20
persuade 75:20	potentially 64:16	processes 45:8,17
pertinent 67:10	potentials 72:21	processing 56:13
phenol 56:21 61:22	pounds 51:18,20,21 52:1,2,3,16,17	produced 26:23 50:6 51:19 66:15
phenolic 10:11,21,24 12:5 16:15 17:5,13,16 18:2,5,15 38:20 40:2 41:4, 11,17 42:1 43:10,16,17 46:24 47:2, 11,12 49:3 53:2 56:4,15 57:7 59:3 60:8,15,16,20 61:3,11,17 62:5,14,19, 24 72:12 76:5,13	practical 90:5,9	producing 3:19
photocopied 8:23	practice 23:12,13 25:3 36:12,13,24 72:7	product 10:8,22 11:6,14,16 14:3,12 20:20 23:19 40:15,17,23 43:1 48:20 49:4 52:11,20 55:19 58:2,8,15 60:12 61:5,8,14,17,19,24 65:21 66:1,2,8 72:18 78:22 82:12,16 84:8
physical 13:21	pre- 89:22	production 52:21
picture 21:5	pre-osha 25:21	products 9:17,19,23 11:10,11,19 12:1,3 13:10 14:7,16,20 15:18,23 21:12 28:17 40:20 45:1,18 47:15 49:13 51:4,18 60 23 61:1 66:3 72:4, 14,21 73:4,9,18,20 76:17,21,22 77:2 78:8,17 82:7 88:16
place 25:19 69:18	precautionary 39:9	professed 45:1
places 88:18	precautions 43:2	progression 36 5,7
Plains 46:8,9	predecessor 83:20	properly 20:16 81:6
plaintiff's 6:3 77:24	preliminary 3:24	properties 30:8
plaintiff-specific 78:12	preparation 73:2	proposed 73:3 81:13 89:20,21
plaintiffs 13:2 17:16 78:14,16,21	prepared 57:20 75:1 80:17	proprietary 13:23
plant 30:24 31:4,20 32:4,14 42:9 43:7 47:15 50:19,24 54:5,15,23 82:21	presence 14:8 15:24 20:22 22:20 26:5 71:9	prospective 35 6 37:8
plants 47:15	present 8:19 35:7 37:8 40:18	protect 15:10 75:6 88:9
plastic 61:8,13 76:17,21 77:2	presentation 48:23	protected 22:24 23:5,15
Plenco 76:12	presented 6:12 25:3 41:21	Protection 81:18
plenty 89:14,15	President 81:9	proved 72:5
pleura 69:3	presidential 81:9	provide 23:14 29:17
pleural 68:22	pretty 33:24 64:2 77:14	provided 5:20 29:19,22 33:19 35:13 37:12 57:23 58:1 63:6
pneumonia 68:3	prevails 90:2	providing 36:20,22 60:9
point 81:20 84:17	prevalent 49:2	provisions 89:9
policies 29:7,12	prevent 81:22	public 67:11 81 20 82:17
polite 57:18	previously 5:2,8 12:10	publication 67:1,7 71:12
political 81:17	prior 3:12 28:16	
pollution 84:17	prioritized 87:23 88:5	
polyesters 44:4	priority 64:19	
	problem 45:19	

Barry Castleman

Index: publications..rephrase

publications 11:9

published 11:6 20:2 21:4 23:17 36:8,
15 43:22 53:23 67:2 71:9 72:10,16
81:4 85:12 86:2 88:4

publishes 87:4

purchased 10:20 57:6

purpose 45:23 50:19 80:2,11

purposes 28:23

put 39:5,11 58:16 60:15 62:5,13 64:4,
16 73:13 74:7,9 90:7

puts 19:22

putting 60:12 65:6

Q

qualifications 3:15

question 24:9 34:7 35:24 36:10,11
41:13 44:1 49:7 54:17 66:9 77:8 82:3
84:20

questioning 3:5 62:11

questions 3:14,20 14:23 40:1 79:13,
16 82:4 85:21 90:22

quick 3:5 82:4

quickly 42:6

quit 67:21

quote 22:10,15,22 23:1 34:8,14
35:10,13 44:4,5, 67:12 70:10

quoted 68:12

quotes 34:20

R

raise 81:8

raised 72:6

raising 85:13

range 49:17 74:3 88:8

Rapids 13:4

raw 14:12,13 16:15 45:8,17 61:12
73:8 82:7 88:15,20 89:2,4

raw-material 61:18

Raymond 50:9

RCI 48:1

reaction 75:1

read 4:8 18:21 20:4,11,18 31:14 38:1
52:4 65:7

reading 21:5 36:14 50:18 69:14
70:16 91:5

reads 87:9

real 3:5 42:6 82:4

reason 13:11 26:20 36:10 76:1

reasons 13:23 14:18 62:23

recall 7:18 11:23 18:19 19:5 29:9
32:24 42:4 62:21 63:11,21 74:5 75:14
90:20

receive 5:23 6:2,9

received 14:2 21:8 70:2

receiving 15:23

Recent 22:10

Recess 55:24

recipe 48:4,20

recipient 59:7 60:2

recognized 26:7 32:9

recommend 89:18

recommendation 80:22 89:16 90:4

recommendations 89:12 90:8

recommended 75:5 80:19

record 3:22 55:23

recorded 20:17

records 28:18

reelection 81:8

refer 10:2 59:21

referring 11:8 21:22 24:14 39:11

reflecting 54:21

regard 77:9 80:18 89:5,7

Register 81:4 87:5,9,10

regular 86:16

regularly 21:8

regulate 80:8 87:7 89:18

regulating 66:5 80 11

regulation 23:16 36:18 44.14

regulations 13:7 15:21 42:8 44:21
45:2,13, 46:20 53:21 54:4,22 55:1,4
75:22 78:2,3,4 79:23 81:22 87:4,16
88:9 89:6,9

Reichhold 3:21 4:4,14,20 5:3,9,17,
22 6:6 7:9,11,20 9:4,13,19,23 10:9,21
11:1 12:6 15:2 19:6,9,14,19,21 21:2
28:14 29:7,12 30:24 31:1,17 40:3
41:11,16,18 42:1,2,9 43:1,7,17 44:20
46:10,22,23 47:10,16,18,22 48:20
49:3 50:10 53:1,6,9,14,17,19 54:23,
24 55:6,17 57:5 59:1 62:13 63:19
76:8 77:5,13,14,15,21 78:1,21 79:3,
10 82:5,11 85:3

Reichhold's 38:20

reinforced 61:13 77:2

rejected 89:15

relate 18:5 41:16 42:1,7 53:3 63:7

related 56:23 75:11

relates 41:4

relating 5:22 7:12 12:11 79:10

relation 79:19

relationship 40:22

release 41:5 65:22

releasing 72:21

relevance 30:20

relevant 30:11 31:17

relied 30:1 31:14

remember 5:10,12 12:20 17:19 18:7

removal 35:11 36:1,5,22 37:10

removed 35:13 37:12

removing 35:17

repair 88:19

rephrase 34:7

Barry Castleman

Index: replaced..sight

replaced 71:16	reviewed 5:22 7:12,19 10:16 12:10 16:19,21,24 17:21 18:4 19:7 28:18 30:1 41:3, 51:15 57:22 66:16 77:13 79:8	section 24:15 59:8,17,20,21
report 50:18 51:6 68:15 74:17,21 75:9 84:12	rid 90:12	sections 59:16
reported 68:16 84:21	rise 72:18	security 56:12
reporters 69:8	Rogers 18:9,14, 43:19 76:12	segment 27:5,8
reporting 68:5	room 6:17	segments 28:3
reports 36:3,4,15 41:7 50:4 68:22 69:4 72:2 83:11 85:16	routine 90:1	selecting 7:23
representations 8:2	routinely 87:1	Selikoff 30:18 68:6 75:2 83:9 85:11, 17
representative 17:2 52:21	rule 81:4 89:21,23,24	sell 20:10
representatives 83:13	rule-making 90:2	sellers 14:19 66 1 73:8
represented 5:21 19:17	rules 54:11 81:13,15 87:16	selling 14:21 20:20 60:8 75:12
requests 88:23	running 52:15,16	send 6:5 58:7 74:17
require 46:20		sense 19:21 67:16 68:10
required 42:12 55:7,9,13,16 87:12	S	sentence 69:11
requirement 65.5,14	S-m-i-t-h-e-r 70:5	September 21.23 30:10,21 53:10
requirements 44:13 54:10,11,12,13 65:3	sacks 73:20	serve 26:6
requiring 24:1,10	safeguards 46:19	Service 22:11
research 19:3 70:5 85:19	safely 75:21	servicing 88:19
researching 28:16	safety 10:4,13,15 16:2,3 23:19 26:2 33:18,19 40:9 44:13,15 48:11 57:5, 17,22,24 58:7 59:1,6,14,22 60:4 63:10 64:14 79:20 87:22 88:10	set 8:3
residences 51:12	sales 28:1 75:17	setting 80:3
resin 10:3,11 13:19,21,23 15:2 17:8 18:13 43:9 63:7 76:10 78:8	sampling 24:22 41:7 51:14 66:12	settings 88:18
resins 43:8 54:6,7 55:22	Sc.d. 3:1	share 28:5
respect 29:8 39:21 45:2 64:13 65:6 77:5 88:13	scenario 58:13	sheet 10:5,14,15 40:9 48:11 57:6,16, 23 58:1,7 59:1,6,14 60:4 63:10
respirators 42:13 54:14	schedule 33:2	sheets 57:17
responsible 57:8,14 58:6	Schneider 12:17	shift 51:19 52 18,22
responsiveness 4:23 16:7 21:19 25:7 37:3	scholar 8:13	short 73:24 74:4
restaurant 6:23	science 23:10,12 66:16,19 69:9,20, 22 84:21	shortest 74:1
result 68:23	Sciences 86:13,15	show 44:19 47:21 72:2
resulting 22:1	scientific 72:10,16 90:8	showed 7:23 8:3 48:15 70:18
retained 5:24 29:20	scientist 8:13	showing 26:24 54:10 84:13
revealed 70:6	scope 78:24	shown 17:15 29:6 31:7,11 43:5 48:21 49:15 53:8,11
review 3:12 7:2 9:22 38:19 51:15 58:19 62:12 63:18		shows 51:11 53:9 54:22
		sidebar 8:16
		sight 27:21

Barry Castleman

Index: signature..table

signature 91:3	12 42:11 61:5 73:6 78:3 79:9 89:8,10	studied 87:24 88:14
significance 51:9 84:1	specifically 5:3,22 30:3 80:21	studies 22:11 75:10
significant 33:11 84:14	specifications 76:9	study 36:7
significantly 84:18	spell 56:22 69:11	subject 13:6 44:4,6 50:5 72:15 83:11 84:23 85:16 88:9
signing 91:5	spelled 31:1 69:16,18	subscriber 21:15
signs 36:1	sprayed 85:14	subscriptions 86:17
silica 35:7 37:9 68:24 69:2,15	Square 10:20 12:12,22 13:3,15 14:24 15:1 16:9,20,21 17:2,5 25:22 26:6,11 27:3,4,10,16,20,23 28:4,10 32:14 55:12 56:4,6 76:1,4,9,11,15,16,18,20 90:17	subsequent 39:17 85:11
silicosis 38:10	stages 35:11 36:23 37:11	substance 70:21
similar 27:13	stand 4:10	substances 21:17 24:2,11,23 48:6 77:22,23
simply 33:3 52:19 81:24 85:4	standard 36:12,13 48:1 53:22,23 55:5,14 59:8 60:3,5 65:15,18 82:1,2	successor 12:14
single 20:11	standards 45:10 77:1 78:6 80:3	sued 89:24
single-minded 88:6	standpoint 75:3	suggest 75:5
sir 6:1	start 3:5	suggested 81:12
situation 66:13	started 74:14 82:11	suggests 72:10
situations 38:3 65:21	starting 74:14 77:24	summarizes 44:13
size 27:23	starts 68:1	summary 66:19 67:1
skin 37:19 38:4	state 11:10 25:11,20 26:2 32:14 33:8, 10 34:2,8,10,17,21,24 35:3 39:21	supplied 17:13
skyscrapers 85:15	state-of-the-art 3:18 83:24	supplier 18:12 76 8
Slightly 52:9	stated 25:16 65:20 75:14	suppliers 17:8,10,13,16 47:17 76:13
small 49:14	statement 3:24 11:13,17,18 22:16 23:9 40:8 45:20 65:11	support 53:13 70 16
smallest 45:15	statements 11:23 29:12 46:6	suppose 9:7 15:11 59:15 62:8 74:14 86:11
smears 70:19	states 22:10 23:24 24:9,19 25:2,10, 22 32:16 34:2,20 36:19 37:1 39:19 70:16	supposed 15:21 66:12 80:10
Smither 70:4	statistically 84:13,18	surfaces 37:20
so-called 14:18	statute 31:11	surprise 39:18
sold 13:21 14:16 15:15,17 17:5 28:17	staying 68:2	survived 68:8 83:15
somebody's 45:11	stop 35:19	switch 12:24
sort 27:19 42:17 48:4,7 52:2	stories 85:18	sworn 3:2
sounds 25:9	street 22:24	synthetic 63:7
source 67:7	strong 32:3	
sources 8:14 66:10 84:17		
speaker 68:12		
speaking 13:14		
special 16:2 82:14		
specialists 22:12		
specific 4:20 6:6 7:9 9:11,12,17 29:3,		

T

T.A. 34:21

T.R. 44:11

table 48:5



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Barry Castleman

Index: tabular..versions

tabular 48:22	thought 48:23	61:13 67:1 71:24 74:7
talk 42:11 47:6 69:22 79:1 83:24	thousands 72:14	typed-in 59:20
talked 6:7 30:16 36:5,6 84:20	threat 72:6	types 69:6
talking 10:4 19:15 23:11 25:19 45:15 46:19 47:1	threshold 24:1,11	typo 69:13
talks 21:24	time 6:10 15:4 19:5 23:10,17 36:8,13 38:14 46:11 51:13 53:22 57:13 58:24 62:13 64:4 65:23 71:18 72:24 73:12 74:6 75:17 77:12,23 85:10 88:9	Typos 69:13
technical 43:12 50:10 62:9	times 3:6,16,19 29:23,24 30:7,11,21 85:5,13 89:14	
telling 74:10	titled 33:20 47:24	U
tells 60:4	TLV 24:23	
temporary 53:23 55:4	TLVS 24:3,12,13,24 25:11	ultimately 71:12 87:14
ten 19:16 27:23 55:12	today 6:16 19:7	unannounced 24:16 80:10
tended 75:4	told 13:22 15:3,23 17:7,9,17 18:14 19:16 39:24 64:1 77:4,18 90:16,19	understand 13:1 44:9 46:13 60:21 61:7,11,20 66:9
term 64:7	Tom 44:10	understanding 53:20 67:19 80:24
terms 3:16 8:7 9:17 16:3 26:8 27:17 32:20 36:9 49:22 50:1 56:11 81:24 82:16 83:23 84:1 85:18 87:15	tonnage 71:13	understood 78:5
terribly 32:3	top 48:5	union 7:13,15,18 28:13,18,22 29:3,7, 11 34:10 47:18,21 74:7,12,17 75:8, 19,24 83:18
test 51:6	topic 53:3	United 37:1 68:5
testified 4:3 26:15,19 61:24 73:7	total 14:20	unqualified 57:21
testify 22:9 77:10	Town 70:18	unseen 27:22
testifying 10:22	Townes 50:13	upcoming 30:17
testimony 4:9 16:24 38:19,23 49:19 51:16 56:3 57:4 58:24 62:12 63:19 78:13 79:1	toxic 21:17 64:15 77:22,23	update 3:16 39:13,16
testing 72:15	toxicology 74:16,21 75:9	updated 3:10 39:12
tests 51:4	trade 8:24 14:17 20:22 21:1 28:9	urban 22:20 71:10,14
text 48:7 73:6	trade-secret 14:18	urban-air 71:24
textile 33:11,16	training 37:12	usefulness 48:24
theory 19:24	trial 12:19 22:3	useless 77:14
thick 8:22	trials 5:11,12	users 84:8
thing 3:5 20:21 30:22 32:13 57:8,14, 21 58:14 64:8 74:24 82:8	triggered 88:23	usual 27:24
things 12:24 14:15 21:13 32:19 41:1 46:16 54:11,17 59:6 61:23 67:2 80:4 82:5 87:1	true 4:5 5:4 8:15 22:5,18 73:17	
thinking 14:23 30:16 82:15,24 90:9	truth 8:14 22:7	V
Thompson 71:8 84:13	tuberculosis 68:3	
Thompson's 72:4	turn 67:3 71:20 90:4	values 24:2,12
	turned 72:1	vapors 37:22
	type 14:18 20:7 41:11 43:17 60:24	varieties 68:17
		vary 40:16
		version 5:17
		versions 66:16



view 81:21**vinyl** 12:8**violation** 25:4**visible** 56:5,7,14**visit** 50:19**vocational** 35:12 37:11

W

W-a-g-n-e-r 68:13**W.J.** 70:4**Wagner** 68:13,16**waive** 91:2**waived** 91:5**Waldorf** 83:10**wanted** 76:16,22**warn** 14:8**warning** 39:21 60:12,16 62:13 63:6,
11,22 64:2,7 65:6,7,11 73:2,3,13
74:7,10,13,15**warnings** 38:20,24 39:6,9,22 73:21
81:23**Warren** 50:13**waste** 54:14**Watergate** 81:12**watershed** 84:6**ways** 25:2**wear** 42:13**week** 8:24 19:15,18 21:6,9,15,21
52:20 53:11,18 81:3**weekly** 66:19 67:1**weeks** 53:22**welcomes** 87:8**Welfare** 80:1**Westinghouse** 26:17,23 27:5,12,15
28:6**White** 46:8,9 81:5**widespread** 36:24 89:8**Wilson** 34:21**wiped** 68:1**withdraw** 17:14**witnesses** 10:23 78:19 83:24**word** 27:8 57:18 80:20**words** 40:17**work** 28:16 88:19**worked** 13:3 21:6,16 22:14 76:7**worker** 22:23 23:5,15 35:17 36:1,6
64:15**workers** 26:3 36:21,23 54:14 56:11
67:12,21,24 68:2, 70:7,13 80:6 84:9
88:24**workers'** 31:11 33:1,6 34:11 35:1
38:17 88:9**working** 50:21**workplace** 26:7 66:6,7**workplaces** 89:10**works** 62:9**world** 71:15**worsening** 35:20**worst-case** 66:13**worth** 23:9**writing** 35:23 90:7**written** 86:23**wrong** 31:1 69:12,16,19

Y

year 5:11,13 52:23 71:15 81:10**years** 30:7 39:18 70:17 72:2**yesterday** 6:7,10,13 31:2 47:20**York** 29:23,24 30:7,11,18,21 82:20,
21,22 83:8,10,22 85:2,3,5,13,15 86:2,
12,14**Yorker** 85:16**young** 21:10 68:2