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H-W

June 4, 1997

Barry Ira Castleman, Sc.D.
1722 Linden Avenue
Baltimore, Maryland 21201

Taken: 1-29-97

Dear Dr. Castleman:

Enclosed please find your deposition taken on the above date. Please read and sign your deposition noting any changes on the errata sheet, noting the page and line numbers with the correction.

After you have read the deposition and completed the errata sheet, please sign the witness certificate page and return those two pages to our office. As you know, both of these pages will become a part of the deposition transcript.

You have thirty days under the rules to complete the reading and signing. Thank you for your cooperation in this matter. If you have any questions, please call me right away.

Very truly yours,

Barbara J. Evans

IN THE DISTRICT COURT OF JEFFERSON COUNTY, TEXAS

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

IN THE DISTRICT COURT OF DALLAS, TEXAS

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

VOLUME II OF THE

VIDEOTAPED DEPOSITION OF BARRY IRA CASTLEMAN, Sc.D.

Volume II of the Videotaped Deposition of Barry
Ira Castleman, Sc.D. was taken in the above-captioned
case on Wednesday, January 29, 1997, commencing at
10:20 a.m. at the Law Offices of Andrew Waters, 550
Light Street, Baltimore, Maryland 21202 and was
reported by Sharon D. Livingston, a Notary Public.

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Page 206 1 make a copy for me, please? 2 MS. CAWTHON: Sure. 3 BY MR. WATERS: 4 Q Doctor, can you tell the ladies and gentlemen of the jury how it was that you worked up the information contained in Exhibit 3? 5 A Well, the material that was available to me was basically organized chron -- lined up chronologically, and then some notes were made about the contents and highlights of the various documents contained. 6 Q The majority of the information that's presented on Exhibit Number 3, Dr. Castleman, was that information or did that come from documentation that you had in your possession before I asked you to work on this case? 7 A The majority of the material was stuff that I already had. 8 There were a few smaller items which you also provided, such as answers to interrogatories in the present case.	Page 207 1 Q All right. And just so the record is clear, Doctor, did I also provide you with some copies of articles and books that were produced by duPont and stated to be maintained by duPont or in their library? 2 A Yes. You indicated to me that duPont had acknowledged the presence of certain texts in their library, and I believe these were all texts with which I was already familiar. 3 Q All right. The outline, Exhibit Number 3, makes a reference at the top of the first page. It says duPont a manufacturer of asbestos products. 4 Let me ask you, first, what is the significance, if any, of duPont being a manufacturer of asbestos products in the context of their knowledge concerning hazards? 5 A Well, if a company uses asbestos as a raw material in the manufacture of industrial products, then that company is, in my view, an asbestos company in that they are engaging in an activity which is an activity that's been a recognized industrial hazard since the 1930s or before, and an activity which has
Page 208 1 been addressed by changes in workers' -- or rather amendments to workers' compensation. Statutes around the country and around the world since the 1930s explicitly recognized asbestosis as a hazard of industrial use of asbestos and -- 2 So that I think that while many big industrial companies used asbestos products themselves to insulate pipes, this is a step beyond that when a chemical company, for example, uses asbestos in the manufacture of various products that it sells. 3 MR. COTTEN: we object to the form of the question as assuming facts not in evidence, and also object to the answer as being nonresponsive in significant parts to the question asked. 4 Q Doctor, have you had an opportunity to review internal corporate documents from duPont that clarify that it was, in fact, an asbestos manufacturer? 5 A Yes, I have. 6 MR. COTTEN: Object to the form of the question as assuming facts not in evidence.	Page 209 1 Q And have you brought some of those documents with you here today, Doctor? 2 A Yes. 3 Q Were those documents contained in your files prior to my asking you to work on this case? 4 A Some of them were, yes. 5 Q And can you just briefly look at those documents, Doctor, identify them for the record and perhaps explain to the jury what they demonstrate concerning duPont's use of asbestos in the manufacturing process. 6 MR. COTTEN: Object to the form of the question. Assumes facts not in evidence. It's also multifarious. 7 A The thing on top here is various duPont products with the duPont trademark clearly indicated on the containers displayed. 8 One is called Seal-M-Tite Asbestos Roof Cement being offered by duPont. 9 I do not see any date on this particular document.
Page 210 1 MR. COTTEN: Let me object to the manner in which the examination of the witness is being conducted and his summarization of the documents. 2 The documents aren't being marked, they're not being put into evidence. He is just referring -- 3 MR. WATERS: Well, we can do that if you like. I mean I don't -- 4 MR. COTTEN: I'm just going to object to him testifying from documents that are not marked. 5 MR. WATERS: Okay. Well, these are documents that have your Bates stamp number on it. 6 MR. COTTEN: That's fine. But I don't -- you know, they're not even being identified by Bates stamp number. 7 MR. WATERS: Okay. 8 MR. COTTEN: There's no way the jury in looking at this is going to know exactly what he's talking about. 9 MR. WATERS: All right. Well, let's just -- to meet the objection, let's take a few seconds and we'll mark the documents.	Page 211 1 Hand those back to me, if you would. (Whereupon, documents tendered to counsel.) 2 (Whereupon, pause.) 3 (Whereupon, Castleman Deposition Exhibit Numbers 4 through 19 were marked for identification.) 4 MR. WATERS: All right. I have marked Exhibits 4 through 13. 5 MR. COTTEN: And those are out of his file; is that right? 6 MR. WATERS: I think that is correct. 7 MR. COTTEN: Okay. 8 MR. WATERS: With the exception of 4 which I think came from materials you pro -- duPont produced to me. 9 Q Doctor, are Exhibits 4 through 13 documents that you reviewed to assist you in formulating your opinions as to whether or not duPont was a manufacturer of asbestos-containing products? 10 A Yes, sir. Yes, they were. 11 Q Okay. If you will, Doctor, just briefly identify by number each of the documents and tell the

Page 212

Page 213

1 jury what was significant in this regard.
 2 A Document Number 4 is a list of different
 3 products offered by duPont clearly indicating the
 4 duPont trademark on the containers displayed.
 5 The first page I have here, item 4, talks
 6 about two products described as asbestos roof cements,
 7 one sold as a liquid and one as a paste. That's not
 8 dated.
 9 The Number 5 document is a communication to
 10 James Morgan at the Haskell Laboratory, the toxicology
 11 laboratory of the duPont Company, from L. B. Wilson at
 12 a location called Chestnut Run, describing the
 13 different uses of asbestos that went on over at
 14 Chestnut Run in various laboratories, describing the
 15 use of loose asbestos fiber, and the regular cutting
 16 and sawing of boards containing asbestos.
 17 MR. COTTEN: May I see that last one,
 18 please.
 19 (Whereupon, document tendered to counsel.)
 20 MR. COTTEN: Thank you.
 21 A Number 6 is an April 10, 1972 memorandum

1 from Mr. Morgan to Dr. Zapp under the letterhead of
 2 the Haskell Lab for Toxicology and Industrial
 3 Medicine, and this is called Asbestos and it makes a
 4 number of points, one of which is can asbestos-
 5 reinforced plastic material be offered to customers
 6 for fabrication of shapes and parts without
 7 endangering the health of customers, employees or
 8 incurring liability from future injury.
 9 And then there's other commentary there
 10 about legal bans on asbestos products which had
 11 occurred in various cities in the United States by
 12 April 10th, 1972.
 13 Document Number 7 is a -- on a duPont
 14 letterhead, Fabrics & Finishes Department, a
 15 communication -- appears to be directed to an
 16 individual named E. E. Swain and makes reference to
 17 1976 OSHA standards for asbestos, and talks about
 18 asbestos exposures associated with the sanding of a
 19 product called Preparakote -- Preparakote,
 20 P-r-e-p-a-r-a-k-o-t-e.
 21 And the sanding samples are reported as

Page 214

Page 215

1 fiber counts between 1.6 and 3.2 fibers per
 2 milliliter, and by way of comparison, the 1976 OSHA
 3 limit is two fibers per milliliter for a eight-hour
 4 time-weighted average.
 5 The next document is a communication that
 6 appears to be from James Morgan. This is a
 7 handwritten document again discussing use of asbestos
 8 as a filler in molding resins and includes a statement
 9 that I suggested they attend the asbestos conference
 10 and then take some more.
 11 It's not clear what asbestos conference is
 12 discussed here.
 13 Document 9 is an April 10, 1973 letter
 14 titled, Asbestos in Talc from E. E. Swain, Jr. of the
 15 Fabrics & Finishes Department of duPont Research and
 16 Development Division to John Zapp, Jr., at the Haskell
 17 Lab.
 18 This is titled, Asbestos in Talc, and simply
 19 acknowledges the concern about the hazard potential
 20 from asbestos as a contaminant, if you will, that was
 21 widely present in industrial talcs.

1 This next Number 10 is a communication from
 2 Richard, looks like, Bubiak, B-u-b-i-a-k, to E. E.
 3 Swain.
 4 Mr. Bubiak is indicated as an industrial
 5 hygienist. And this talks about a heavy duty stop
 6 leak compound and the potential hazard of asbestos to
 7 consumers and radiator repairmen who have contact with
 8 this duPont product.
 9 On document Number 11, dated June 16, 1972,
 10 a communication -- it does look like the man's name is
 11 Hubiak, H-u-b-i-a-k, the same industrial hygienist who
 12 authored the previous document.
 13 This is called, Asbestos Incorporated into
 14 Plastic Material and discusses the potential hazards
 15 from incorporating asbestos into polyesters and
 16 nylon.
 17 This is a three-page document, goes into a
 18 fair amount of detail about the various steps in
 19 handling of these products, the manufacture and the
 20 handling of these products where asbestos could become
 21 airborne and be a hazard to the users of the

Page 216

Page 217

1 products.
 2 The next is a document which we've already
 3 mentioned.
 4 Q Yeah, there may be an extra copy in there,
 5 Doctor.
 6 A Right. This appears to be -- although it's
 7 got some different hand markings on it and
 8 different -- and no duPont Bates stamp. This is the
 9 same as the Number 6 document, the April 10, 1972
 10 communication from James Morgan to John Zapp titled,
 11 Asbestos, talking about hazards of asbestos reinforced
 12 plastic material to consumers.
 13 Following is yet another copy of this. Why
 14 don't we just toss it. Two of them will be more than
 15 enough.
 16 Number 13 is a September 19th, 1972
 17 communication from E. E. Swain to Dr. Reinhardt at the
 18 Haskell Lab.
 19 Now, this is titled, Asbestos in Paint Films
 20 and begins, as you know, we are concerned about the
 21 possible potential hazards associated with asbestos

1 contained in talc used in some of our paints.
 2 And it goes on to talk about some tests that
 3 they plan to conduct.
 4 Number 14 is the first couple of pages of
 5 some court documents filed in duPont -- I mean, I'm
 6 sorry, filed in Delaware by Daniel MacMurray in a case
 7 involving duPont and asbestos.
 8 And this also makes reference to the use of
 9 Mr. MacMurray working as a duPont employee in places
 10 where asbestos was used, for example, in the
 11 engineering development laboratory, talking about a
 12 polyimide compound which included raw asbestos in
 13 order to make brake blocks.
 14 There's also discussion of use of Tedlar --
 15 duPont Tedlar film used as a laminate for wallboards
 16 containing asbestos during the 1960s in Buffalo, New
 17 York at a duPont plant.
 18 And asbestos was also used as wadding for
 19 shotgun shells in Remington firearms at the duPont
 20 Bridgeport, Connecticut plant where Mr. MacMurray had
 21 worked according to these documents.

Page 218 1 So these are additional industrial uses of 2 asbestos by the duPont Company. We're almost at the 3 end. 4 Here's one called, Asbestos Fiber, June 9, 5 1972. 6 MR. COTTEN: Is that 15? It should be 7 marked. 8 THE WITNESS: I think you're right that it 9 should be marked, but it's not. 10 BY MR. WATERS: 11 Q Okay. Let's take care of that. That's the 12 next one in sequence? 13 A Right. This is Number 15 -- is a June 9, 14 1972 note to Dr. Zapp at the Haskell Laboratory from 15 E. E. Swain indicated here as toxicity and pollution 16 control coordinator, and it talks about the use of 17 125,000 pounds of asbestos fiber in 1971 by the 18 Fabrics & Finishes Department. 19 He goes on to then make reference to car 20 care products, cooling system sealer, and the heavy 21 duty stop leak compound which contain asbestos, about	Page 219 1 one ounce per can, he indicates, or 30 grams. 2 And his question is raised whether this 3 might be a hazard to the consumer or the radiator 4 repairmen in this document. 5 Number 16, not numbered yet but soon to be, 6 is a memorandum or a note from A. C. Stevenson of the 7 Elastomers Laboratory to Dr. Zapp at the Haskell 8 Laboratory talk -- this is called, Asbestos/Lung 9 Cancer, and he makes reference to a British article in 10 the British Journal of Industrial Medicine indicating 11 a copy of that is attached concerning the health 12 hazards in handling asbestos. 13 And this note says I wonder if we should be 14 calling the possible health hazards of this material 15 to our customers' attention as well as reviewing our 16 handling procedures in the laboratory. 17 MR. COTTEN: What was the date of that? 18 THE WITNESS: May 19, 1966. 19 Q I'm sorry, Doctor. What is the product 20 that's referenced? 21 What are they -- are they talking about a
Page 220 1 specific product being manufactured on that exhibit, 2 this being Exhibit 16, I think? 3 A He talks about the Elastomers Laboratory 4 handling asbestos -- 5 Q Okay. 6 A -- and the use of polymers in binding 7 asbestos. 8 There's no more specific -- 9 Q All right. 10 A -- description of exactly what plastics or 11 elastomeric polymers or whatever it is he's talking 12 about here in this particular note. 13 I believe the next one would be numbered 14 17. This is another communication dated January 2, 15 1969. 16 This is also to Dr. Zapp at the Haskell 17 Laboratory, the Toxicology Lab, called, Asbestos 18 Fiber. 19 And it makes reference to a Delaware 20 bulletin which evidently raised question as -- about 21 hazards of asbestos.	Page 221 1 The statement follows: We employ 2 approximately 100 tons of asbestos fiber annually as a 3 raw material in our division primarily as an 4 ingredient in radiator stop leak compounds and as a 5 filler in cement block primers. This implies that a 6 limited group of operators who charge these materials 7 into mixers -- charge is the chemical industry talk 8 for dump -- are exposed to asbestos dust for a fairly 9 short period of time but on a regular repetitive 10 basis. Consequently we have these materials 11 classified S-1 which imposes the wearing of a 12 cartridge filter-type respirator during handling, but 13 do not require any other extraordinary precaution. 14 And he asks for Dr. Zapp's comments on that. 15 The next two sheets, which is the last in 16 this set -- I think this is 18 -- also come from legal 17 documents filed in the case of Mr. MacMurray and his 18 wife describing other asbestos -- describing some of 19 the asbestos usage by duPont industrially. 20 I don't think there's anything to add to 21 what we've already mentioned.
Page 222 1 Listed here are paint films, radiator stop 2 leak products, cement block primers and undetermined 3 products in the Elastomers Laboratory, also asbestos 4 hazard as a component of talc. 5 MR. COTTEN: May I see Number 18? 6 (Whereupon, document tendered to counsel.) 7 MR. COTTEN: Thank you. 8 Doctor, just before you do that, before you 9 go on to the next question, I need to object to the 10 nonresponsive answer to the question asked and object 11 to the narrative form of the answer, many answers 12 given to no questions asked. 13 Q Doctor -- 14 MR. COTTEN: I also -- excuse me. 15 MR. WATERS: Sorry. 16 MR. COTTEN: I also need to object to him 17 testifying from documents that have not been -- no 18 formal offer of proof with respect to the authenticity 19 of a number of the documents has been made. 20 And I also would object to the testimony 21 with respect to the documents that purport to be from	Page 223 1 a case brought by someone named MacMurray in that 2 those documents appear to be in the form of answers to 3 interrogatories that are not sworn nor signed by the 4 person identified as MacMurray. 5 I think that whole process that we've just 6 been through is totally improper. 7 MR. WATERS: All right. 8 Q Doctor, in your review of duPont documents 9 pertaining to the asbestos products manufactured by 10 duPont, I'd just like to go with you and make sure 11 I've got them all listed. 12 MR. COTTEN: I'd object to the form of the 13 question. 14 I'm sorry. 15 Q Did you see evidence, Doctor, from the 16 duPont documents that duPont manufactured asbestos- 17 containing elastomers, for example? 18 A Yes. 19 MR. COTTEN: Object to the form of the 20 question. Improper predicate. 21 Q Okay. Did you see, Doctor, that duPont

Page 224

1 manufactured plastics, polyesters and nylons that
 2 contained asbestos?
 3 A Yes.
 4 MR. COTTEN: Object to the form of the
 5 question.
 6 Q Did you observe, Doctor, that they
 7 manufactured roofing products that contained asbestos?
 8 A Yes.
 9 Q A product called PreparaKote that contained
 10 asbestos?
 11 A Yes.
 12 MR. COTTEN: Objection, repetitive.
 13 Q Did you observe from the duPont documents
 14 that they manufactured molding resins containing
 15 asbestos?
 16 A Yes.
 17 Q Did you observe from the documents that
 18 duPont manufactured cooling system sealants and stop
 19 leak compounds containing asbestos?
 20 A Yes.
 21 Q And in that context did you -- was there an

Page 226

1 MR. COTTEN: Objection. Speculation.
 2 Q Did the documents confirm that duPont was
 3 involved with the manufacture of brake blocks
 4 containing asbestos?
 5 A Yes.
 6 Q Did the documents indicate that duPont was
 7 involved with the manufacture of laminate for
 8 wallboards containing asbestos?
 9 A Yes.
 10 Q Did the documents indicate that duPont,
 11 through the Remington division, was involved with the
 12 manufacture of wadding containing asbestos that was
 13 used for shotgun shells?
 14 A Yes.
 15 MR. COTTEN: Objection to the form of the
 16 question.
 17 Assumes facts not in evidence.
 18 Q Okay. Did the documents indicate that
 19 duPont was involved with the manufacture of asbestos-
 20 containing wadding for shotgun shells?
 21 A Yes.

Page 228

1 development of knowledge on asbestos and relevant
 2 facts.
 3 MR. COTTEN: Excuse me. I want to, just so
 4 the record is clear, object to Exhibit 3 in that the
 5 witness has just identified it as being some form of
 6 synopsis of his opinions as being insufficient proof,
 7 and that if the witness has opinions I would object to
 8 them being presented in this fashion if he's going to
 9 talk about them in his testimony.
 10 MR. WATERS: All right.
 11 MR. COTTEN: And further, if he then talks
 12 about them in his testimony, I'd object to Exhibit
 13 Number 3 as being repetitious of his prior testimony.
 14 BY MR. WATERS:
 15 Q Doctor, does Exhibit Number 3, in fact,
 16 state your opinions or does it provide a listing of
 17 the information and the documentation that will
 18 support your opinions?
 19 A The latter. This is essentially a factual
 20 account of the documentation.
 21 Q All right, sir.

Page 225

1 indication that duPont utilized approximately 100,000
 2 -- I may have misheard you on this -- 100,000 tons of
 3 asbestos in the cooling system sealant and stop leak
 4 compound production in 1969?
 5 MR. COTTEN: Objection, repetitious.
 6 A That was 125,000 pounds, yes, of asbestos in
 7 19 -- this is in 1971 -- and cooling system sealer and
 8 heavy duty stop leak compounds.
 9 Q All right.
 10 A There may have been -- I think there was
 11 another document that gave other figures somewhere in
 12 here.
 13 Q Okay.
 14 MR. COTTEN: Objection. Nonresponsive.
 15 Q Did you observe in reviewing the duPont
 16 documents that they manufactured fabrics and
 17 finishes -- or finishers containing asbestos?
 18 A Well, their Fabrics & Finishing Department
 19 used asbestos, and it may have been that they
 20 manufactured other products containing asbestos within
 21 that purview of that department.

Page 227

1 MR. COTTEN: Objection to the form of the
 2 question.
 3 Assumes facts not in evidence.
 4 Q And did the documents indicate that duPont
 5 was involved with the manufacture of asbestos-
 6 containing cement block products?
 7 A Yes.
 8 Q I'd like you to turn back, Doctor, to
 9 Exhibit Number 4, which was the outline.
 10 MR. COTTEN: I have it as Number 3.
 11 Q I'm sorry. Right you are. Exhibit Number
 12 3.
 13 Doctor, does this document constitute a
 14 synopsis of your review of the significant
 15 developments concerning duPont's knowledge of the
 16 hazards of asbestos from the early part of the century
 17 until 1970s, 1980?
 18 A Yes, insofar as I -- you know, this material
 19 is known to me.
 20 I imagine there may be more to the story,
 21 but as far as I know this is an outline of duPont's

Page 229

1 Doctor, can you tell us when it was that
 2 there was some initial early recognition that asbestos
 3 causes lung disease as reflected in the documents, in
 4 the duPont documents?
 5 A Well, Dr. Stopps makes reference to the
 6 earliest recognition being in 1907 referring to --
 7 evidently to the Montague Murray case.
 8 Q All right.
 9 MR. COTTEN: I object to the answer as being
 10 nonresponsive.
 11 Q Okay. And the -- okay.
 12 What is the next significant development, or
 13 what you think may be a significant development
 14 concerning the development of knowledge or the
 15 potential development of knowledge after 1907?
 16 A DuPont --
 17 MR. COTTEN: Objection to the form of the
 18 question.
 19 It's vague, incomprehensible.
 20 A The next entry here is that duPont appointed
 21 its first medical director in 1915 according to a

Page 230

1 duPont author's text in 1960.
 2 Q All right. What is the significance,
 3 Doctor, to you of the -- duPont's appointment of its
 4 first medical director in 1915?
 A Well, this is early as corporate -- as
 corporations go to have a medical director but
 certainly appropriate for a company the size of duPont
 and a company engaged in handling of potentially
 hazardous chemicals and other materials.
 And it simply indicates the expertise that
 the company had brought on board starting in 1915, and
 then later with the development of the Haskell
 Toxicology Laboratories in the 1930s to have in-house
 sophistication and the knowledge about the hazards of
 industrial materials and the means of their
 mitigation.
 MR. COTTEN: Objection. Nonresponsive.
 Q Doctor, the next entry indicates 1919,
 National Safety Council and National Safety News, and
 we've discussed that somewhat in the prior portion of
 your deposition.

Page 232

1 whatever, that were of concern and interest to the
 2 people at duPont Company.
 The company set up this Toxicology
 Laboratory which still exists, a laboratory being set
 up in the 1930s.
 Among the people that they hired were Dr.
 Wilhelm Hueper who went on to become the first chief
 of the environmental cancer section of the National
 Cancer Institute in the United States in the 1940s and
 '50s and into the early '60s.
 And Dr. Hueper was probably -- well, he was
 starting his career in research and publication on
 industrial carcinogens at the time he worked for
 duPont at the Haskell Labs in the 1930s and, in fact,
 did some very famous research on -- in animal studies
 of dye intermediates, beta naphthalene being the one
 of primary interest.
 Q Doctor, there's an ind --
 MR. COTTEN: Excuse me. I need to object to
 the nonresponsive nature of the answer.
 Q Doctor, was the Haskell Laboratory for

Page 234

1 deposition.
 MR. COTTEN: Let me get my objection out.
 It's an improper use of his interpretation of what
 another deposition says.
 The deposition -- if you're going to offer
 portions of the deposition, the proper procedure is
 for you to offer those portions of the deposition or
 to use it to impeach a witness.
 He hasn't even brought that material with
 him.
 MR. WATERS: Oh, so you don't think an
 expert can rely on a deposition?
 MR. COTTEN: He ought to have it with him.
 MR. WATERS: Is that your opinion?
 MR. COTTEN: I'm objecting to him not having
 it with him.
 MR. WATERS: It is right here. And it's not
 only that, it's in the file that you sent downstairs
 to be copied.
 MR. COTTEN: I want this man to testify to
 things that we can cross-examine him on.

Page 231

1 Just briefly, if you could reiterate to the
 2 jury, what is the significance of duPont's involvement
 3 with this organization.
 MR. COTTEN: Objection. Repetitious.
 A The National Safety Council had annual
 meetings which provided opportunity for people in
 industry generally to meet, to learn about health and
 safety problems associated with industrial materials,
 and to also read the publications of the annual Safety
 Congresses and the National Safety News magazine.
 So here we have access to knowledge about
 asbestos in particular and health hazards in general
 through the National Safety Council by major
 industrial firms, many of them including duPont, which
 was prominently represented on the board of directors.
 Q With respect to the next entry, Doctor, can
 you tell us what was or what is the Haskell Laboratory
 for Toxicology and Industrial Medicine?
 A Well, this is a laboratory that was set up
 to study the hazards associated with industrial
 chemical products and chemical intermediates,

Page 233

1 Toxicology and Industrial Medicine -- did it maintain
 2 a library or scientific or medical library?
 A Yes.
 Q And how do we know that, Doctor?
 A This was included in the deposition
 testimony of Dr. Gordon Stopps who had -- in the 1960s
 had worked for a duPont Company.
 MR. COTTEN: I'd object to the nonresponsive
 part of the answer and also to the reference to
 extraneous deposition testimony, deposition testimony
 which has not been produced at this deposition for --
 MR. WATERS: No, it's here and you have it.
 MR. COTTEN: I don't have it.
 MR. WATERS: What do you mean? You produced
 it to me two months ago.
 MR. COTTEN: You said it's here. I don't
 have it here.
 MR. WATERS: Well, that's not my fault.
 MR. COTTEN: He didn't -- he hasn't brought
 it out. It's an improper use of his characterization.
 MR. WATERS: No, it's not. He can rely on a

Page 235

1 If he's going to testify to something I want
 2 him to produce it.
 I'm just stating my objection, Mr. Waters.
 MR. WATERS: Well, it's a ridiculous
 5 objection.
 MR. COTTEN: well, that's your opinion.
 MR. WATERS: Do what you need to do.
 THE WITNESS: I think it's time for
 9 everybody to take a break --
 MR. WATERS: No, we're okay.
 THE WITNESS: -- to give the Court Reporter
 12 five minutes, and we shall resume.
 MR. WATERS: All right. Let's do that.
 THE VIDEOGRAPHER: Off the record at 11:03
 15 a.m.
 (Whereupon, discussion off the record.)
 (Whereupon, a brief recess was taken --
 18 11:03 a.m.)
 (Whereupon, after recess -- 11:14 a.m.)
 THE VIDEOGRAPHER: 11:14 a.m. We're back on
 21 the record.

Page 236

1 MR. COTTEN: For purposes of the record, let
2 me state an objection to the -- any question asked of
3 Dr. Castleman that asks for him to state any facts or
4 to discuss any documents or read from any documents or
5 to state any opinions to the extent that such opinions
6 and the bases for those opinions have not been
7 disclosed to this point in discovery, specifically,
8 the discovery relating to expert witnesses
9 including -- offered by the plaintiff including Dr.
10 Castleman, and that relates to both interrogatories
11 and requests for production, both of which we have a
12 motion to compel pending on.

13 MR. WATERS: All right. And let me just
14 state for the record that I -- first of all, Dr.
15 Castleman has produced this morning his entire file
16 with respect to duPont, which includes references to
17 -- and specific page cites to depositions that he
18 reviewed and includes portions of depositions that he
19 had reviewed and had in his files, and I would also
20 state that if counsel wants an opportunity to utilize
21 the Stopps deposition in particular, I have that here

Page 238

1 covered.
2 Q Doctor, in your review of the available
3 materials, were you able to reach a conclusion as to
4 whether or not the Haskell Laboratory maintained a
5 scientific and medical library?
6 A Yes, they did.
7 Q And how was it that you were able to
8 determine that?
9 A This is covered in the deposition testimony
10 of Dr. Gordon Stopps.
11 Q Okay. Doctor, from time to time do you
12 review deposition testimony to assist you in
13 understanding certain facts and in formulating certain
14 opinions?
15 A Yes, I do.
16 Q Is it ordinary and customary for experts
17 like yourself to utilize sworn deposition testimony?
18 A Yes, it is.
19 Q Thank you.
20 The next entry, Doctor, indicates a
21 publication called Industrial Maladies.

Page 240

1 want to mark these?
2 MR. COTTEN: If he's got -- if you could
3 recite what Bates numbers you're talking about, then
4 that would --
5 THE WITNESS: Sure. The cover or the
6 picture of the book itself closed is number 0975054.
7 BY MR. WATERS:
8 Q What were the essential findings or the
9 essential opinions in Industrial Maladies that are of
10 significance in the context of knowledge concerning
11 the hazards of asbestos?
12 A Well, it talks about the pathology and other
13 aspects of asbestosis. It talks about Dr.
14 Merewether's extensive study, Dr. Montague Murray's
15 case report as well starting back to 1906 here.
16 It describes the fact that asbestosis is a
17 lung scarring disease that can have -- that can cause
18 total disability or death and --
19 Q Any indication at that time, Doctor, that
20 asbestos was connected to cancer or lung cancer?
21 A Not at that time, no.

Page 237

1 and you're more than welcome to look at it.
2 Just let me know and I'll take my stickies
3 out of it.
4 MR. COTTEN: Thank you.
5 Do we have an agreement that I won't have to
6 restate that objection to the extent that the
7 questions that you ask call for that type of answer
8 and to the extent that Dr. Castleman makes -- whether
9 your question calls for it or not, Dr. Castleman makes
10 reference to those matters?
11 MR. WATERS: That's fine.
12 MR. COTTEN: Okay.
13 MR. WATERS: After having said all of that
14 I've forgotten where we were. Let's see.
15 We were discussing -- I hate to ask you to
16 do this, but I can't remember if he completed his
17 answer before the objection, if we got a clean record
18 on it or not.
19 MR. COTTEN: I think I waited until after.
20 MR. WATERS: Did you? Well, let me just
21 restate it one more time just to make sure we're

Page 239

1 Can you tell us what that is?
2 A This is a medical text authored by Dr.
3 Robert Legge, L-e-g-g-e, and talks about asbestosis in
4 this 1934 text.
5 Q All right. Have you had an opportunity to
6 review portions of the Industrial Maladies publication
7 that were maintained by duPont?
8 A Well, I've -- yeah, I've seen the book.
9 Q All right. And do you have with you -- and
10 just so the record is clear on this -- a copy of the
11 portions of Industrial Maladies that were -- was
12 produced by duPont in this case?
13 A Yes, I do.
14 Q All right.
15 A This is only noted by its dates at this
16 time.
17 Q All right.
18 MR. COTTEN: What's the --
19 MR. WATERS: Bates number?
20 MR. COTTEN: -- exhibit number?
21 MR. WATERS: It hasn't been marked. Do you

Page 241

1 Q All right. If you could turn your attention
2 to -- I think we already discussed this before, so we
3 can just touch on this.
4 Concerning the National Safety Council,
5 Doctor, do you recall the document -- I don't think
6 you have it in front of you, but it was attached to
7 your prior deposition -- National Safety News article
8 discussing asbestosis and the terrific hazard from
9 visible dust?
10 A Yes, I believe that was a 1935 article by
11 someone named Johnson --
12 Q All right.
13 A -- an insurance official.
14 Q What was the National Safety Congress,
15 Doctor?
16 A Those were the annual meetings of the
17 National Safety Council.
18 Q And were those held in the 1930s, and
19 specifically in 1936?
20 A Yes.
21 Q At the 1936 Safety Congress, were there any

Page 242 1 papers presented concerning the hazards of asbestos 2 and potential exposure from products? 3 A Yes. 4 MR. COTTEN: Object that it's repetitious. 5 A Yes, there was reference to asbestos hazards 6 in construction products, construction materials. 7 Q And who presented that particular paper? 8 A Dr. Anthony Lanza of Metropolitan Life 9 Insurance Company. 10 Q Is that study or that paper referenced in 11 your book? 12 A Yes, it is. 13 Q What is the significance of duPont's 14 receipt of the Occupation and Health ILO manuscript or 15 document in 1938? 16 MR. COTTEN: Objection. Calls for 17 speculation. 18 A Well, the ILO publication was a supplement 19 to the ILO encyclopedia on occupational health. 20 And this supplement published in 1938 21 contains a 15-page chapter on asbestos, and it talks	Page 243 1 in quite -- quite a lot of detail about the various 2 medical features of the disease asbestosis and the 3 need for preventive measures. 4 Q Does it reference cancer as a complication 5 of asbestosis? 6 A Yes, it does reference cancer as a suspected 7 complication of asbestosis in here. 8 Q Does it discuss protective measures to 9 avoid the hazards of asbestos? 10 A Yes. It has a section on preventive 11 measures, as they're called in here, about widespread 12 need for dust suppression. 13 They say -- they conclude that by saying a 14 practical maximum of the greatest value is that every 15 translation of fiberized asbestos in the factory 16 produces dust which if not controlled is dangerous. 17 Q Does it on the cover, Doctor, indicate a 18 duPont Bates number? 19 A Yes. The duPont Bates number is 0974569. 20 Q All right. There's an indication on your 21 outline that duPont was a member of the Industrial
Page 244 1 Hygiene Foundation. 2 I think we've already spent some time 3 talking about that. 4 Can you just generally tell us, Doctor, what 5 sort of information duPont would have received about 6 asbestos and cancer from the Industrial Hygiene Digest 7 abstracts in the 1940s and '50s? 8 MR. COTTEN: Object to the form of the 9 question. Calls for speculation. 10 A The Industrial Hygiene abstracts which were 11 sent to all member companies of the Industrial Hygiene 12 Foundation included numerous references to asbestos as 13 a hazard and asbestosis, some as well discussing lung 14 cancer as a complication in the reports of cases of 15 asbestosis. 16 These reports came from -- mostly from 17 Germany and Great Britain and the United States and 18 were published in medical and scientific journals in 19 these and other countries, many in other languages, 20 and the abstracts were simply one paragraph usually, 21 maybe two-paragraph summaries of the essential	Page 245 1 findings that were reported in these medical 2 articles. 3 MR. COTTEN: Objection. Nonresponsive. 4 Q What is the significance of duPont's receipt 5 in 1942 of Dr. Hueper's publication, Occupational 6 Tumors and Allied Diseases? 7 MR. COTTEN: Objection. Assumes facts not 8 in evidence. 9 Calls for speculation on the part of the 10 witness. 11 Q Well, let me ask the question, first, in 12 reviewing Hueper's Occupational Tumors and Allied 13 Diseases, which you should have a copy there, does 14 that indicate a duPont Bates number, and if so, what 15 that number would be? 16 A Yes, the duPont number on this one is 17 0975743. 18 Q All right, sir. 19 And what, in your opinion, Doctor, is the 20 significance of duPont's receipt of this particular 21 text or document?
Page 246 1 MR. COTTEN: Objection. Calls for 2 speculation. 3 THE WITNESS: Dr. Hueper's book on 4 Occupational Cancer and Agents that Cause It in 1942 5 was nearly 900 pages in length. It was a very 6 comprehensive analysis of the world medical literature 7 on different agents in the workplace which were 8 capable or suspected of causing cancers. And there 9 was a section on asbestos, as well, which indicated 10 that Dr. Hueper thought that very likely or probably 11 asbestos was a cause of lung cancer. Various 12 preventive measures, as well, were discussed in the 13 text, as well as the need for the medical/legal 14 recognition of the cancers, as well as asbestosis as 15 occupational diseases. 16 Q Doctor, I know this is not on the outline, 17 but were there any articles in the 1944 time frame 18 that touched on the use of asbestos products in 19 shipyards that would be pertinent to this case? 20 A Well, there was a publication in the 21 National Safety News, as well as in the National	Page 247 1 Safety Congress in 1944 -- I think it was written by a 2 man named Lawrence -- let me just get the reference -- 3 Q Thank you, Doctor. 4 A -- to that from the text. This is 5 mentioned on page 734 of the current edition of my 6 book. 7 Lawrence wrote an article called Fume 8 Control in Shipyards, National Safety News, April 9 1944, and I quote from the article, in the text here, 10 for protection against dust or possible asbestosis, it 11 is recommended that such material be dampened. He's 12 talking about asbestos insulation. 13 That such material be dampened wherever 14 possible, and that dust respirators be worn in 15 addition to the provision of special ventilation. 16 Periodic medical examination of those 17 exposed is also necessary. 18 MR. COTTEN: Objection. Nonresponsive. 19 Q And what, Doctor, is the significance of 20 that article in the context of what it would have told 21 members of the National Safety Council concerning use

Page 248

1 of asbestos products?
 2 MR. COTTEN: Objection. Calls for
 3 speculation.
 4 A It informs readers that asbestos insulation
 5 products were capable of causing asbestosis and that
 6 industrial hygiene measures were necessary in order to
 7 protect workers from this occupational disease risk.
 8 Q All right. There's a reference to the JAMA
 9 article, Asbestosis & Cancer. I know that we
 10 discussed that earlier in your deposition.
 11 Indication that that would have been
 12 received by the duPont Medical Department.
 13 Can you tell us the basis of that
 14 conclusion, Doctor?
 15 A Well, Dr. Stopps has testified to that in
 16 his deposition testimony that the medical department
 17 of duPont received the Journal of the American Medical
 18 Association.
 19 In addition, this particular editorial on
 20 Asbestos & Cancer was abstracted in the Industrial
 21 Hygiene Digest in August of 1949 and therefore would

Page 250

1 record for just one second.
 2 THE VIDEOGRAPHER: We're going to go off the
 3 record at 11:31 a.m.
 4 (Whereupon, discussion off the record.)
 5 (Whereupon, a brief recess was taken --
 6 11:31 a.m.)
 7 (Whereupon, after recess -- 11:41 a.m.)
 8 THE VIDEOGRAPHER: 11:41 a.m. We're back on
 9 the record.
 10 BY MR. WATERS:
 11 Q Doctor, can you tell us a little bit about
 12 the publication, Industrial Toxicology as referenced
 13 on your outline?
 14 A This is actually a second edition of a book
 15 authored by Dr. Alice Hamilton, one of the early
 16 medical experts on occupational diseases in this
 17 country, and Dr. Hamilton and her associate, Dr.
 18 Harriet Hardy, put together the second edition of this
 19 book in 1949, and there is some discussion of asbestos
 20 in here as well as a cancer causing agent.
 21 Q Does your copy of that text, Doctor,

Page 252

1 asbestos and the medical literature associating it
 2 with cancer of the lung.
 3 He goes on in here to cite numerous reports
 4 from the United States, Canada, Great Britain,
 5 Germany, and these are cases associating lung cancer
 6 and asbestosis.
 7 MR. COTTEN: Let me object to the form of
 8 the question as calling for speculation and the answer
 9 as being, in part, nonresponsive.
 10 Q Doctor, what did Hueper's A Quest Into the
 11 Environmental Causes of Cancer of the Lung indicate
 12 with respect to link or potential link between
 13 asbestos and lung cancer and whether or not that link
 14 had been confirmed?
 15 A Well, after reciting a number of the case
 16 reports or referencing them, Hueper says thus there is
 17 at present -- this is on page 36 -- there is at
 18 present a total of 80 cases of asbestosis cancer on
 19 the lung -- of the lung -- on record.
 20 To this number must perhaps be added the
 21 eight cases of cancer of the lung complicated by

Page 249

1 have been additionally available to the people at
 2 duPont at around that time.
 3 Q All right. And just to conclude that
 4 thought, Doctor, are you saying that duPont would have
 5 received information concerning the JAMA article or
 6 editorial, Asbestosis & Cancer, both from the
 7 Industrial Hygiene Foundation as well as through its
 8 medical department receipt of the Journal of the
 9 American Medical Association?
 10 MR. COTTEN: Object to the form of the
 11 question.
 12 Calls for speculation.
 13 A Right. They would have received, according
 14 to Dr. Stopps, the original editorial with their
 15 subscription to the JAMA, the Journal of the American
 16 Medical Association, and they would have received this
 17 abstract as one or -- I think it was one paragraph --
 18 nice one-paragraph summary of the editorial that
 19 appeared in the Industrial Hygiene Digest at very
 20 close to the time that the editorial appeared.
 21 MR. WATERS: All right. Let's go off the

Page 251

1 indicate a duPont Bates number, and if so, could you
 2 please read it into the record?
 3 A Yes, the duPont number on this is 0974298.
 4 Q All right, sir.
 5 The next indicated publication is Dr.
 6 Hueper's A Quest Into the Environmental Causes of
 7 Cancer of the Lung.
 8 Let me ask you, first, when that was
 9 published.
 10 A 1955.
 11 Q Do the -- the copy that you have, does it
 12 indicate that it was in the possession of duPont, and
 13 if so, with the Bates number, could you tell us what
 14 that number is?
 15 A The duPont Bates number is 1142018 on the
 16 cover page.
 17 Q And what is significant, Doctor, if
 18 anything, about duPont's receipt or possession of this
 19 particular publication?
 20 A This publication, like many of Dr. Hueper's
 21 writings, goes through a fair amount of detail on

Page 253

1 asbestosis which Kennaway and Kennaway discovered in
 2 an analysis of the death certificates of males
 3 registered between 1921 and 1938. That was a British
 4 report.
 5 Eleven additional cases of asbestosis cancer
 6 of the lung in workers in two English plants were
 7 recently reported by Doll who felt from his
 8 statistical analysis that there exists a definite
 9 causal relation between these two conditions.
 10 He goes on to talk about additional
 11 statistics compiled by Dr. Merewether and makes
 12 reference to the fact that in some cases there may be
 13 a long exposure free interval before the lung cancers
 14 become manifest, and to that he references one German
 15 and one British report.
 16 Q All right.
 17 MR. COTTEN: Let me object to the
 18 nonresponsive part of the answer and specifically
 19 bring your attention to the matters that he cited had
 20 to do with asbestosis and lung cancer as opposed to
 21 your question where you asked him the association

Page 254

1 between asbestos and lung cancer.
 2 Q What were Dr. Hueper's conclusions, if any,
 3 concerning the relationship between asbestosis and
 4 cancer in this 1955 publication?
 5 A I'm sorry. What are you asking me?
 6 Q What were Dr. Hueper's conclusions, if any,
 7 concerning the link between asbestosis and lung cancer
 8 in this 1955 publication?
 9 A Well, I'm looking for something that could
 10 cause -- that could stand as a conclusory statement of
 11 Dr. Hueper, but he seems to confine himself to
 12 statements such as the evidence on hand at any rate
 13 has convinced the West German Government to make
 14 asbestosis cancer of the lung a compensable disease.
 15 Q All right.
 16 MR. VOGLER: Object and move to strike.
 17 Q All right. Let's move on, Doctor.
 18 The next reference in your outline in 1958
 19 refers to a Dr. Schepers becoming director of
 20 pathology at the Haskell Labs.
 21 Let me ask you, first, who was -- or who is

Page 256

1 A Yes, I do. I've met with Dr. Schepers on a
 2 number of occasions. I've interviewed him, questioned
 3 him about things that occur in my book.
 4 Dr. Schepers, the last time I saw him was
 5 within the last year. He was 82 years old at the
 6 time.
 7 Q Are there -- is Dr. Schepers acknowledged in
 8 your book as one of the sources for the information
 9 that's provided there?
 10 A Yes.
 11 Q In the context of this case and of your
 12 research on duPont over the years, did you have an
 13 opportunity to review some excerpts from a deposition
 14 of Dr. Schepers?
 15 A Yes.
 16 Q When Dr. Schepers was at the Saranac
 17 Laboratory, you indicated he was involved with some
 18 studies.
 19 Can you elaborate on that a little bit and
 20 tell us what in particular -- what particular product
 21 he was studying the effects of at that time.

Page 258

1 corporation, and included attorneys.
 2 Q Prior to coming to work at the Haskell
 3 Laboratories for duPont, was Dr. Schepers involved
 4 with testing the results of exposure to the Kaylo
 5 asbestos product?
 6 A Yes. Yes. He published a report on this in
 7 1955.
 8 Q Had Dr. Schepers reached any conclusions
 9 that you're aware of concerning whether or not
 10 asbestos could cause cancer or did cause cancer prior
 11 to his arrival at duPont?
 12 A Well, he wrote in a letter to Owens-Corning
 13 in 1956 that he believed asbestos had been thoroughly
 14 incriminated as a carcinogen by that time, and in 1960
 15 in the textbook that Dr. Schepers contributed a
 16 chapter toward, he also mentioned that lung cancer had
 17 been recognized as a compensable occupational disease
 18 in some countries including Britain and in South
 19 Africa.
 20 Q All right.
 21 MR. VOGLER: Let me insert an objection to

Page 255

1 Dr. Schepers?
 2 A Dr. Schepers is a doctor who was originally
 3 trained in South Africa about industrial diseases in
 4 the 1930s and the 1940s. He came to this country in
 5 1949.
 6 He later became the director of the Saranac
 7 Laboratory, a laboratory where a great deal of
 8 experimental research was conducted on asbestos as a
 9 cause of occupation -- or cause of asbestosis and
 10 cancer in experimental animal studies, as well as
 11 human studies that were also conducted on human tissue
 12 generally involving cases that were involved before
 13 the compensation courts.
 14 And so Dr. Hueper had -- rather, Dr.
 15 Schepers had this background when he was hired by
 16 duPont after the closure of the Saranac Lab. He went
 17 to work for duPont in 1958 and authored a chapter in a
 18 book published by a number of duPont authors in 1960.
 19 Q Do you --
 20 MR. COTTEN: Objection. Nonresponsive.
 21 Q Do you know Dr. Schepers personally?

Page 257

1 A Well, one of the things he mentions is the
 2 development of substitute materials for asbestos that
 3 duPont saw -- that the people at duPont saw because of
 4 the hazards of asbestos, that that would create market
 5 opportunities for -- say, for substitute materials.
 6 Q All right, sir.
 7 In his position was he responsible for
 8 testing products and investigating whether certain
 9 products could cause cancer?
 10 A Yes, that was one of his duties.
 11 Q And did he indicate in his deposition that
 12 he reported those results from time to time to duPont
 13 management and duPont attorneys?
 14 A Yes.
 15 MR. COTTEN: Objection to the form of the
 16 question.
 17 Q Can you tell the ladies and gentlemen of the
 18 jury who Dr. Schepers reported the results of his
 19 investigations to?
 20 A He indicated that his reports went to upper
 21 management, people making business decisions for the

Page 259

1 the form of the question.
 2 Q The next reference, Doctor, is with respect
 3 to a publication called Industrial Carcinogens.
 4 Can you tell us when that document was
 5 published or that article or book?
 6 A This is a textbook that was published in
 7 1959 by Dr. Robert Eckardt of Esso Medical Research
 8 Division.
 9 Q Did you say Esso?
 10 A Esso, the oil company.
 11 Q Right. The copy of that text that you have,
 12 Industrial Carcinogens, does it indicate that it was
 13 in the possession of duPont?
 14 A There's a duPont Bates number on it, 0975371
 15 on the cover page.
 16 Q What is significant, Doctor, if anything,
 17 from this text concerning information about asbestos
 18 and cancer?
 19 A Well, Dr. Eckardt makes reference --
 20 MR. VOGLER: Objection to the form.
 21 A -- on page 4 to the earliest reports, case

Page 260

1 reports by Lynch and Smith connecting lung cancer and
2 asbestosis in workers who had developed both
3 conditions.

4 Q And the Lynch and Smith reports, Doctor,
5 what was the date of those?

6 A The Lynch and Smith report was 1935.

7 Q Okay. Did the 1959 publication give some
8 information concerning appropriate protective measures
9 to ensure that workers were not exposed to asbestos?

10 A Under asbestos handling on page 132 and
11 thereafter, he makes reference to the enclosure of
12 equipment with exhaust ventilation, the use of wet
13 processes wherever possible, the establishment of good
14 housekeeping routines to clean up accumulated dust.

15 Where dustiness cannot be controlled by any
16 of these means, adequate dust respirators should be
17 provided he says.

18 He also recommended periodic dust
19 measurement in the working environments. I think
20 that's all.

21 Q All right, Doctor. Let me hand to you this

Page 262

1 this in the last deposition so far.

2 MR. WATERS: I'll try to tighten it up.

3 Q Did you answer, Doctor? I'm sorry.

4 A Well, these people might not have all been
5 M.D.s, but they were all employed by duPont, the
6 authors, the contributors. Some are mentioned as
7 Ph.D.s and have other degrees. Most of them are
8 medical doctors.

9 Q Doctor, can you look briefly with respect to
10 your outline and describe for the jury what are the
11 most pertinent or significant portions of this
12 publication for purposes of your review and your
13 opinions?

14 A Well, this would really come from the
15 chapter written by Dr. Hueper.

16 Q Did you mean Dr. Schepers or --

17 A Dr. Schepers. I'm sorry. Thank you.

18 Q That's all right.

19 A Dr. Schepers indicated that asbestos --
20 asbestosis could occur wherever exposures to asbestos
21 dust occur, that the lung cancer connection from

Page 264

1 Have you had an opportunity to discuss with
2 Dr. Schepers the extent of duPont's knowledge
3 concerning the hazards of asbestos and particularly
4 the cancer risk issue in this general time frame?

5 MR. COTTEN: Objection. Multifarious.

6 A I can't -- I can't recall specifically
7 talking to Dr. Schepers about his knowledge during the
8 time -- or what duPont's knowledge would have been
9 during the time that they employed him.

10 I don't recall specifically discussing that
11 topic.

12 Q All right. The next reference again in 1960
13 concerns safety and superintendent, Kenneth Keuper.

14 Doctor, let me ask you first, have you had
15 an opportunity to review portions of the deposition of
16 Mr. Hueper?

17 A Keuper, K-e-u-p-e-r?

18 Q I'm sorry. Is that how it's pronounced?

19 MR. WATERS: Larry, is that how it's
20 pronounced?

21 MR. COTTEN: Yes.

Page 261

1 text --

2 A Oh, he also talks about periodic medical
3 examination of the individuals at risk.

4 Q All right. Let me hand to you, Doctor, the
5 text, Modern Occupational Medicine.

6 A Yes.

7 (Whereupon, document tendered to witness.)

8 Q And in case this wasn't clear on the record
9 before, is that your personal copy of that text?

10 A Yes, it is.

11 Q Okay. Who were the authors of the text,
12 Modern Occupational Medicine?

13 A The authors are Drs. Fleming, D'Alonzo and
14 Zapp, Dr. Zapp whose name appears in some of the
15 memoranda we've discussed already.

16 Q And who -- by whom were these various
17 physicians employed at the time this book was
18 published?

19 A DuPont.

20 MR. COTTEN: I don't know exactly where
21 you're going with all this, but we went over all of

Page 263

1 asbestos was a causal relationship accepted by most
2 authorities.

3 He also makes reference to pleural
4 mesothelioma in asbestos workers being quite
5 prevalent.

6 He indicates that exposure for as little as
7 one month can cause disease, and he says that we are
8 now seeing cases of asbestos disease among people
9 whose exposures occurred during World War II in the
10 shipyards.

11 This was in this 1960 textbook.

12 Q Have you ever discussed with Dr. Schepers
13 his work for duPont and his -- and particularly his
14 involvement with this publication?

15 A I have discussed his work with duPont. For
16 example, he told me about the way he was directed to
17 handle any contact with Dr. Hueper at scientific
18 meetings.

19 MR. COTTEN: Objection. Nonresponsive.

20 Q Have you discussed with Dr. Schepers -- or
21 strike that.

Page 265

1 Q Keuper. Let me reask the question in light
2 of that.

3 Doctor, in the context of your research
4 concerning duPont, prior to my asking you to help on
5 this case, did you have an opportunity to review
6 deposition testimony from the safety superintendent,
7 Kenneth Keuper?

8 A Yes, I have.

9 Q Do you recall specifically what Mr. Keuper
10 testified concerning his knowledge and that of other
11 duPont supervisors with respect to asbestos and cancer
12 in the 1960 time frame?

13 MR. COTTEN: Object to the form of the
14 question.

15 A Well, he says that he was aware of the link
16 between asbestos exposure and lung cancer in 1960.

17 Q And that certainly -- in your opinion,
18 Doctor, would that be consistent with the knowledge
19 stated in the text, Modern Occupational Medicine?

20 A Well, this would be consistent with -- yes,
21 what was published in the text in 1960 by the duPont

Page 266

1 office.

2 Q What did Mr. Keuper indicate, if anything,
3 concerning duPont's response to knowledge of the
4 health hazards from asbestos at that time?

MR. COTTEN: Object to the form of the question.

7 A Well, he said that it was a matter of
8 discussion in the company which he was raising that
9 asbestos was a health hazard and that at least in Mr.
10 Keuper's opinion something needed to be done.

11 Q Did he indicate also that he had told his
12 supervisor about the health hazards but that nothing
13 was done in response to his concerns?

14 A Yes, that's what he --

15 MR. COTTEN: Objection to the form of the
16 question. Misstates the evidence.

17 MR. WATERS: Let me restate the -- sorry.
18 Are you finished?

19 MR. COTTEN: Um-hmm.

20 Q Let me restate the question in light of the
21 objection.

Page 267

1 What was Mr. Keuper's testimony concerning
2 the response from his supervisor about his concern
3 about the hazards of asbestos and cancer?

4 A Well, he was asked what the supervisor did
5 as a result of his having given him the information,
6 and he says, nothing -- on page 33 in response to that
7 question -- absolutely nothing. The next question he
8 says no, not to my knowledge.

9 Q All right. Moving forward a little bit in
10 time, Doctor, the next reference on your outline is in
11 1964. Can you tell us first who was Dr. C. J. -- or I
12 think it's C. J. -- Dr. Stopps?

13 A Dr. Stopps was a medical doctor who was
14 employed by the duPont Company in the mid 1960s for
15 several years, and Dr. Stopps attended a major
16 conference on asbestos which was held in New York
17 during that time.

18 Q Was -- where was Dr. Stopps employed by
19 duPont? Do you know?

20 A I think it was at the Haskell Laboratories.

21 Q The same place as Dr. Schepers?

Page 268

1 A Yes.

2 Q There are a number of references in your
3 outline to -- in the 1964 time frame to Dr. Stopps'
4 conclusions and actions that he took. I just want to
5 walk through those with you.

6 What was Dr. Stopps' recommendation with
7 respect to utilizing respirators to prevent asbestos
8 disease?

9 A In his opinion he said that they would be --
10 they could be completely effective.

11 Q All right.

A This was indicated in his Trip report to
that conference I mentioned in 1964.

14 Q Did Dr. Stopps make any recommendations at
15 that time or in that time frame concerning lung
16 testing of persons exposed to asbestos?

17 A Yes. He recommended that such medical
18 studies be conducted.

19 Q Did Dr. Stopps indicate that the connection
20 between asbestos and cancer had, in his opinion, been
21 established earlier than this 1964 conference?

Page 269

1 A Yes, he has so testified.

2 Q What was Dr. Stopps' opinion concerning
3 whether insulators, the users of asbestos products,
4 were the only ones at risk or whether other
5 individuals might be at risk from exposure as well?

6 A He's testified that others who were in the
7 area who could breathe the same air contaminant would
8 also be at risk of developing lung diseases from it.

9 Q In his documentation -- in his Trip report,
10 did Dr. Stopps report Dr. Selikoff's quantification of
11 the level of disease or the number of persons that
12 were becoming ill?

13 A Yes. He indicated that by the time that
14 insulation workers had had 40 years from the onset of
15 their exposure in the insulation trade and
16 construction trades, those who hadn't died from
17 occupational diseases or other conditions would have a
18 rate of 94.2 percent asbestosis.

19 Almost all of them, in other words, living
20 that long after starting in insulation work would have
21 developed asbestosis.

Page 270

1 Dr. Stopps also indicated that the studies
2 and the presentations of Selikoff and others at the
3 New York conference indicated that there was a
4 substantial cancer risk as well, which had been
5 already documented by the time that the conference was
6 held in late 1964.

7 Q What was Dr. Stopps' recommendation
8 concerning future exposures or potential exposures of
9 duPont employees?

10 A In his Trip report he said it is important
11 that no persons within the company should be exposed.

12 Q Did Dr. Stopps differentiate between
13 insulators or sheet metal workers or pipe fitters or
14 other trades in the context of possible concern about
15 exposures?

16 A No, not among the construction trades
17 exposed to the dust from asbestos insulation
18 products. He indicated that they were all at risk.

19 Q Did Dr. Stopps advise the duPont Company in
20 November of 1964 that rip-out or tear-out work
21 involving asbestos could be hazardous?

Page 271

1 A Yes.

2 Q And did Dr. Stopps indicate the significance
3 or try to quantify the significance of the amount of
4 asbestos used by duPont on an annual basis and the
5 potential health hazard that might result from that
6 use?

7 A Yes. He indicated that -- he gave a -- I
8 think he gave a figure of 200,000 pounds used by
9 duPont every year, most of the -- most of it at nylon
10 plants.

11 Q All right, sir. The next reference in 1965,
12 have you reviewed duPont admissions in this case
13 indicating that duPont as of 1965 was already aware of
14 regulations or guidelines related to asbestos
15 exposures or potential exposures at the Kinston, North
16 Carolina nylon fac -- nylon facility?

17 MR. COTTEN: Object to the form of the
18 question in that, number one, it's an improper use of
19 request for admissions.

20 Secondly, it misstates the evidence as
21 there has never been use of nylon at the Kinston

Page 272

Page 273

1 facility.
 2 MR. WATERS: Did I say use of nylon or did I
 3 say manufacture of nylon?
 4 MR. COTTEN: Well, you said manufacture of
 5 nylon. There's never been a manufacture of nylon at
 6 the Kinston facility.
 7 MR. WATERS: Okay. Let me rephrase the
 8 question in light of the objection.
 9 Q Doctor, have you had an opportunity to
 10 review admissions made by duPont in this case
 11 indicating that duPont was, as of 1965, already aware
 12 of regulations or guidelines related to asbestos
 13 exposures or potential asbestos exposures at the
 14 Kinston, North Carolina facility?
 15 MR. COTTEN: Object to the form of the
 16 question because it calls for an improper use of
 17 request for admissions.
 18 Q You may answer, Doctor.
 19 A Well, duPont indicates that duPont personnel
 20 reviewed regulations or guidelines related to exposure
 21 or potential exposure to asbestos at the Kinston,

1 North Carolina plant prior to 1965.
 2 Q In 1966 did you -- concerning 1966, did you
 3 have an opportunity to review memorandums from Dr.
 4 D'Alonzo, who I believe was the medical director at
 5 the time, indicating that duPont was conducting a
 6 confidential investigation regarding mesothelioma
 7 deaths of duPont workers?
 8 A Yes.
 9 Q All right.
 10 A They indicate that there had been a case of
 11 mesothelioma among one of their plant employees and
 12 who died in 19 -- a 56-year-old worker who died in
 13 1963, and additional investigation is called for here.
 14 MR. COTTEN: Objection. Nonresponsive.
 15 Q You should, in fact, I think, Doctor -- you
 16 should have two memos there adjacent to one another
 17 that are the same in form.
 18 A Right.
 19 Q Okay. What do those -- in light of the
 20 objection let me ask you this question.
 21 What do those memos indicate concerning

Page 274

Page 275

1 duPont's confidential investigation of mesothelioma
 2 deaths at that time?
 3 A Well, in addition to the fact that they
 4 had -- they knew about this one case, Dr. D'Alanzo
 5 says please do a careful investigation and let me know
 6 if this individual was ever exposed to asbestos in our
 7 employ, how long he was, in what type of work, or any
 8 other information that may be available.
 9 If at all possible, try to ascertain whether
 10 there is any information that this individual worked
 11 as a roofer, pipe coverer or other type of asbestos
 12 exposure prior to joining duPont.
 13 This inquiry is for our own edification only
 14 as no one outside of the company has raised the
 15 question.
 16 And he says we are hopeful you will keep
 17 this information most confidential, and let me have
 18 your reply as early as possible.
 19 Q The communications from Dr. D'Alanzo, the
 20 duPont medical director, do they indicate that at
 21 least at that time he felt that roofers, for example,

1 may have been -- may have had significant exposures to
 2 asbestos?
 3 MR. COTTEN: Objection. Calls for
 4 speculation.
 5 A Yes.
 6 Q Also, in 1966, Doctor, you reference a
 7 November 8 memorandum where Dr. D'Alanzo is requesting
 8 information from various duPont facilities of that
 9 asbestos disease among workers.
 10 Do you see -- do you have that document --
 11 A Yes.
 12 Q -- in front of you?
 13 A Yes, I'm looking at the document now.
 14 Q All right. In that document does Dr.
 15 D'Alanzo specifically limit his request for
 16 information to insulators?
 17 A Well, he asks a lot of things in here. He
 18 asks how many full-time insulators and how many
 19 part-time insulators are employed.
 20 And then he goes on to ask questions about
 21 the insulating materials, the use of sprayed

Page 276

Page 277

1 insulation products.
 2 Q Does he ask about the need -- or what
 3 protective measures may be being utilized with respect
 4 to asbestos?
 5 A Yes, he does. He asks to know about
 6 protective -- preventive measures or safety equipment
 7 when sawing insulating materials, removing obsolete
 8 insulation and spraying insulating materials.
 9 And then he goes on to talk about pulmonary
 10 function testing.
 11 Q Concerning the medical information he asks
 12 for and the limitation that it pertained to
 13 insulators, at this time based on what we've already
 14 reviewed, was duPont aware that persons other than
 15 insulators -- that is to say people who didn't have
 16 direct involvement with the use of asbestos
 17 products -- were also at risk from asbestos exposure?
 18 MR. COTTEN: Objection to the form of the
 19 question.
 20 Calls for speculation from the witness.
 21 A Yes. This is indicated in the documentation

1 and testimony of Dr. Gordon Stopps.
 2 Q Which we've already discussed, correct?
 3 A Right. Which predates November 1966.
 4 Q All right. Did Dr. D'Alanzo also in a
 5 memorandum of November 14, 1966 recommend the use of
 6 masks and elimination of certain products due to the
 7 extreme hazard?
 8 A Yes, he does.
 9 Q Do you have also indicated a memorandum from
 10 a Dr. Ford, the Kinston, North Carolina company doctor
 11 for duPont concerning -- in response, in effect, to
 12 Dr. D'Alanzo's memorandum of November 8, 1966?
 13 A Yes.
 14 Q And what are the indications from Dr. Ford's
 15 memorandum as to what protective mechanisms or
 16 measures are being taken when Kinston, North Carolina
 17 workers were working in the vicinity of asbestos?
 18 MR. COTTEN: Objection. The document speaks
 19 for itself.
 20 A Well, he says -- he makes reference to
 21 positive exhaust of band saws and no control devices

Page 278

1 for hand sawing.
 2 Q What did he state with respect to possible
 3 respiratory protection?
 4 A There isn't anything about respiratory
 5 protection. He talks about glove and eye protection
 6 in this answer.
 7 Q And is that response in response to a
 8 question about what protection is being used around
 9 asbestos?
 10 You may need to refer back to D'Alanzo's
 11 memo.
 12 A Yes. D'Alanzo's asking for a listing of
 13 preventive measures and this is what was listed. So
 14 in answer to your question he talks about gloves --
 15 glove and eye protection here.
 16 It doesn't say anything about respiratory
 17 protection for the dust.
 18 Q All right. Moving on to 1966, Doctor, and
 19 in reviewing the deposition of Mr. Keuper, what did he
 20 indicate took place in 1966 concerning measures to
 21 reduce exposure to asbestos?

Page 280

1 for shop cleaning. The insulation shop will be kept
 2 clean and free of accumulations of dust.
 3 Q In his deposition, did Dr. -- excuse me, Mr.
 4 Keuper indicate that 1966 was the year that the
 5 construction division of duPont finally instituted
 6 measures to reduce exposure, despite the fact that he
 7 had been recommending that for at least three years?
 8 MR. COTTEN: Objection to the form of the
 9 question.
 10 A His testimony goes beyond what's contained
 11 in this document.
 12 The document itself does not say that.
 13 Q Do you have the testimony there?
 14 A I believe so. I was reading from it before,
 15 so possibly here somewhere.
 16 Q It's there somewhere. And let me rephrase
 17 the question while you're looking for that, Doctor.
 18 In Mr. Keuper's deposition, what did he
 19 indicate, if anything, concerning the adoption of
 20 measures by the construction division of duPont in
 21 1966 and why that was not done until that year?

Page 282

1 -- deposition of Mr. Keuper in the case of Charles
 2 Clark and several other cases filed in Delaware.
 3 MR. COTTEN: Just -- pardon me.
 4 THE WITNESS: And the deposition was
 5 dated --
 6 MR. COTTEN: Let me ask you a question.
 7 Does that indicate if duPont was a party to
 8 that deposition?
 9 THE WITNESS: Yes.
 10 MR. COTTEN: In the style of the case?
 11 THE WITNESS: It indicates that they were
 12 represented by an attorney named Thomas Morrissey.
 13 MR. COTTEN: Okay. And what was the date of
 14 it?
 15 THE WITNESS: This is January 31, 1984.
 16 MR. COTTEN: All right. Thank you.
 17 BY MR. WATERS:
 18 Q Do you recall the question, Doctor, or do I
 19 need to give it back to you?
 20 A You were asking me about the -- whether
 21 there had been some delay in responding to the urgings

Page 279

1 A Well, he talks about -- he talks about
 2 control measures associated with the application of a
 3 sprayed asbestos product called Limpet insulation, and
 4 he says that first, that the spraying is performed in
 5 an isolated area away from shops and locations where
 6 the dust might be pulled into air-conditioning
 7 systems.
 8 Second, that the insulators engaged in
 9 spraying are required to wear fresh air supplied
 10 respiratory protection.
 11 He says we have also ordered the MSA
 12 cartridge type respirator and ultra high filter type
 13 H, 50 micron density cartridges.
 14 So this is for the sprayers. They're
 15 talking about respiratory protection that was being
 16 used.
 17 Three. Shop men and craftsmen are required
 18 to wear respirators while cutting materials containing
 19 asbestos indoors. This applies to hand saw, as well
 20 as power driven saw operations.
 21 And four. A vacuum cleaner has been ordered

Page 281

1 A This is the Keuper deposition --
 2 MR. COTTEN: Could you tell us what exhibit
 3 number that is, if it's been marked as an exhibit?
 4 MR. WATERS: It has not been marked. None
 5 of these have been marked. We can mark them all. I
 6 don't really have a problem with that.
 7 MR. COTTEN: I don't mind, however you want
 8 to do that. If it's got a DUP number on it, I'd like
 9 to know.
 10 MR. WATERS: The Keuper deposition?
 11 MR. COTTEN: Um-hmm.
 12 MR. WATERS: I don't think it does
 13 because this one came from his files --
 14 MR. COTTEN: Okay.
 15 MR. WATERS: -- and is not the one produced
 16 to me.
 17 MR. COTTEN: If he could tell us --
 18 MR. WATERS: The page numbers?
 19 MR. COTTEN: -- the date of the deposition
 20 and the page numbers, that would be very helpful.
 21 THE WITNESS: well, the deposition is in the

Page 283

1 of Mr. Keuper about control measures to protect
 2 workers from asbestos and the question -- there are
 3 several questions here on 338.
 4 "What years did you do those studies?
 5 "We did the studies in 1966.
 6 "QUESTION: So then, sir, the reductions in
 7 the use of asbestos insulation products, in fact, did
 8 not occur until after 1966?
 9 "ANSWER: That's right."
 10 And then it goes on, "Is there any reason
 11 why, sir, you as your department head, did not
 12 implement the reductions prior to 1966?"
 13 And he says, "Why?"
 14 And the question, "Yes, sir."
 15 And Mr. Keuper answers, "Because I couldn't
 16 get it accepted by management. I couldn't get it
 17 through."
 18 Q All right.
 19 A And then they go on to talk about how this
 20 was going on between the years 19, looks like, 63 and
 21 '66.

Page 284

1 Q All right, sir.
 2 In 1968, moving on in the outline, did Mr.
 3 Keuper author a memorandum that discussed whether or
 4 not workers in adjacent areas to the work location
 5 should receive protection?
 6 A Yes, he did.
 7 Q What were his comments in that regard?
 8 A Well, he indicates the workers in the
 9 adjacent area should be protected from asbestos
 10 released into the workplace air.
 11 Q All right. Your outline references a 1970
 12 asbestos conference and some citations from Dr.
 13 Stopps' deposition.
 14 Can you tell us what was of significance
 15 from Dr. Stopps' deposition concerning that
 16 conference?
 17 A Well, Stopps testifies that the workers
 18 should be told that asbestos causes cancer, causes two
 19 kinds of cancer, and that this was first recommended
 20 in 1970.
 21 Q All right. In 1973 there's a reference from

Page 286

1 duPont a safety engineering standard that you have
 2 reviewed?
 3 A Yes.
 4 Q And does that document make any statements
 5 on behalf of duPont concerning the length of time that
 6 it has been known that asbestosis and lung cancer were
 7 caused by exposure to asbestos?
 8 MR. COTTEN: Object to the form of the
 9 question. It's vague.
 10 Q You can answer, Doctor.
 11 A They indicated that's been known for a long
 12 time.
 13 Q And specifically, Doctor, in light of the
 14 objection, can you tell us what the duPont safety
 15 engineering standard confirmed in 1973 concerning
 16 knowledge of the hazards of asbestos?
 17 MR. COTTEN: Object to the form of the
 18 question.
 19 It's vague.
 20 A Well, it states here, asbestosis and lung
 21 cancer have long been associated with exposure to

Page 288

1 witness.
 2 Q Let me -- let me rephrase the question,
 3 Doctor.
 4 In your opinion, in the context of assessing
 5 corporate knowledge and reaction to the knowledge of
 6 hazards of asbestos, what is the significance of Dr.
 7 Neeld's actions as described by Dr. Karrh in his
 8 deposition?
 9 MR. COTTEN: Same objection.
 10 A Actions like that are generally taken to
 11 lessen liability of companies where occupational
 12 diseases are being recognized.
 13 Q Doctor, I'd like you to assume certain
 14 facts, if you will, and I'll recite that -- those at
 15 this time.
 16 I want you to assume that in this case the
 17 jury will consider evidence that my client's father
 18 and husband was exposed occupationally to asbestos
 19 while working as an insulator and a sheet metal worker
 20 at the duPont Kinston facility in the 1950s, '60s,
 21 '70s and '80s.

Page 285

1 the deposition of Dr. Karrh.
 2 Do you recall Dr. Karrh stating that efforts
 3 should be made to, quote, stay away from mentioning
 4 the more frightening medical aspects of asbestos, end
 5 quote?
 6 A Yes.
 7 MR. COTTEN: Object to the form of the
 8 question as it fails to advise date, time or place of
 9 the deposition, the page numbers or lines that he's
 10 reading from.
 11 MR. WATERS: Fair enough.
 12 Q Go ahead, Doctor. I'm sorry.
 13 A The deposition was in 1983. That's all that
 14 we have recorded here. And Karrh said to stay away
 15 from mentioning the more frightening medical aspects
 16 of asbestos.
 17 MR. COTTEN: what are you referring to?
 18 THE WITNESS: My own notes.
 19 MR. COTTEN: Those are your notes?
 20 THE WITNESS: Right.
 21 Q In 1973, Doctor, was there also issued by

Page 287

1 asbestos.
 2 Q And that statement that you just read,
 3 Doctor, is that on an official duPont document?
 4 A Yes, it is.
 5 Q Does it contain the duPont logo?
 6 A Yes, it does on the bottom of the same page.
 7 Q All right. Doctor, the last reference in
 8 your outline is a reference to a deposition -- another
 9 deposition of Dr. Karrh.
 10 Do you see that?
 11 A Yes.
 12 Q Okay. And what does the reference indicate
 13 as in 1980 concerning a Dr. Neeld and his actions with
 14 respect to an X-ray report or a person who may have
 15 had asbestos disease?
 16 A The request was made to delete the word
 17 "asbestos" from the X-ray report.
 18 Q What is the significance of that, Doctor?
 19 MR. COTTEN: Objection to the form of the
 20 question.
 21 Calls for speculation on the part of the

Page 289

1 Let me ask you first if you can assume that.
 2 A Yes.
 3 Q I want you to further assume that Mr. Adams
 4 was not provided any protection from the hazards of
 5 asbestos during those time frames when he was exposed.
 6 Can you assume that?
 7 A Yes.
 8 Q I want you to assume that no efforts were
 9 made by duPont to inform my client and others
 10 similarly situated concerning the hazards of asbestos
 11 until at the earliest the late 1970s.
 12 Can you assume that?
 13 A Yes.
 14 Q I want you to also assume that there will be
 15 evidence before this jury that literally dozens of
 16 persons were identified by duPont as suffering
 17 asbestos injuries, many of whom ultimately filed
 18 claims as a result of those injuries.
 19 Can you assume those facts?
 20 A Yes.
 21 Q In addition, Doctor, I want you to take into

Page 290

1 consideration the evidence you've reviewed today,
 2 particularly the fact that duPont was well aware of
 3 Dr. Selikoff's 1964 data indicating that upward of 94
 4 percent of persons with significant and lengthy
 occupational exposure would develop disease.
 Do you recall that evidence?

7 A Yes.
 8 Q Additionally, Doctor, I'd like you to recall
 9 the evidence from various forms, various sources, that
 10 duPont was aware that small exposures to asbestos
 11 could cause disease and death.
 12 Do you recall that evidence?

13 A Yes.
 14 Q Lastly, Doctor, I want you to assume -- or
 15 excuse me -- I want you to recall, if you can, the
 16 evidence in this case that duPont employees had
 17 been -- supervisory employees at a significant level
 18 in the corporation had been unsuccessfully calling for
 19 reform for additional asbestos protective measures
 20 starting at least in 1960 with Mr. Keuper and
 21 continuing in 1964 with Mr. Stopps.

Page 292

1 They also contain facts that are not in the
 2 evidence in this case and a misstatement of the facts
 3 and grossly misstate the evidence in the case.
 4 It includes information, as an example, of
 5 claims of -- as stated by Mr. Waters, dozens of people
 6 with asbestos-related diseases without tying any of
 7 that information to time.
 8 It fails to advise the witness that none of
 9 these claims were made or came to the attention of
 10 duPont during any reasonable time frame, that Lester
 11 Adams may have been exposed to asbestos in this case.
 It assumes that he was exposed to asbestos
 in this case without proof of such matter, and, in
 general, the hypotheticals are overbroad and vague.

14 That's it.
 15 MR. VOGLER: Specifically, are we -- never
 16 mind. I'm sorry.
 17 I join in that objection.
 18 Q You may answer, Doctor.
 19 A Yes, I believe that the duPont Company was
 20 in possession of sufficient information to reasonably
 21

Page 294

1 Q In light of the previous objection
 2 concerning nonresponsivness I'm going to rephrase one
 3 more question to you on this.
 4 Again, based on the assumptions that I
 5 provided to you, that I think will be established by
 6 the evidence, and based upon the evidence that you've
 7 reviewed for the jury today, do you have an opinion as
 8 to whether or not duPont knew with substantial
 9 certainty at the time these exposures took place that
 10 serious injury or death was substantially certain to
 11 occur?
 12 And I ask you to base your opinion on
 13 reasonable scientific probabilities.
 14 A The answer is --
 15 MR. COTTEN: I'm going to reiterate --
 16 MR. WATERS: You can, if you want, just say
 17 they're the same.
 18 MR. COTTEN: -- all of the prior objections
 19 made to the last time you asked him concerning his
 20 opinions.
 21 A The answer is yes.

Page 291

1 Do you recall that evidence?
 2 A With Dr. Stopps, yes, I do.
 3 Q Dr. Stopps.
 4 Based on all of those facts and the
 5 assumptions that I've previously provided to you,
 6 Doctor, do you have an opinion as to whether or not
 7 duPont knew with substantial certainty at the time
 8 these exposures took place that serious injury or
 9 death was substantially certain to occur?
 10 And I ask you, first, do you have an opinion
 11 based on reasonable scientific probabilities.
 12 A Yes, I do.
 13 Q And what is that opinion, Doctor?
 14 MR. COTTEN: Let me -- before you state your
 15 opinion, Doctor, let me make the following objections.
 16 First, there's a failure to provide a
 17 proper predicate for the Doctor to state such an
 18 opinion.
 19 The hypotheticals are improper, they're
 20 insufficient, and they contain many assumptions and
 21 opinions as opposed to facts.

Page 293

1 anticipate that Mr. Adams and others similarly placed
 2 in their organization would be at very high risk of
 3 developing occupational disease.
 4 MR. COTTEN: Objection. Nonresponsive.
 5 Q Doctor, in formulating your opinions in this
 6 case, have you reviewed the same or similar types of
 7 materials that you reviewed in formulating the
 8 opinions that are contained in your book about various
 9 corporations?
 10 A Yes.
 11 Q Have you, in fact, in the past been called
 12 upon to evaluate corporate knowledge and corporate
 13 response to knowledge concerning the hazards of
 14 asbestos?
 15 A Yes, many times.
 16 Q Have you been qualified by numerous courts
 17 in various states of this country to testify on those
 18 issues?
 19 A Yes.
 20 MR. VOGLER: Objection.
 21 MR. COTTEN: I'll join in the objection.

Page 295

1 Q And what is that opinion, Doctor?
 2 A That they had sufficient information to
 3 anticipate the problems that have occurred among Mr.
 4 Adams and some of his cohorts.
 5 MR. COTTEN: Objection. Nonresponsive.
 6 Q In your opinion, Doctor, did duPont have --
 7 in your -- strike that.
 8 In your opinion, Doctor, is it substantially
 9 certain that duPont had knowledge that serious injury
 10 or death would result from exposures that took place
 11 as previously described?
 12 MR. COTTEN: Same objections, the last
 13 objection -- reincorporate the last objections to the
 14 form of the opinion question.
 15 MR. VOGLER: It's also leading.
 16 A The answer is yes.
 17 Q Okay. One more time in light of the last
 18 objection.
 19 What is your opinion concerning the
 20 extent -- strike that.
 21 Let me ask you, Doctor, if you agree or

Page 296

Page 297

1 disagree with the statement that duPont knew with
2 substantial certainty that serious injury or death was
3 substantially certain to occur at the time the
4 exposures to Mr. Adams took place?

5 MR. COTTEN: I object to --

6 A I agree with that.

7 MR. COTTEN: -- object to the form of the
8 question for all of the reasons stated to all the
9 prior opinion questions with respect to the questions
10 concerning substantial certainty and the Woodson
11 standard.

12 A I agree with that statement.

13 Q What is your opinion, Doctor, with respect
14 to the certainty or substantial certainty of duPont's
15 knowledge concerning serious injury or death in the
16 context of exposures in the '50s, '60s, '70s and
17 '80s?

18 MR. COTTEN: Let me object to the form of
19 the question as being hopelessly overbroad.

20 Secondly, object to it on the same basis
21 as the prior objections concerning his opinions that

Page 298

Page 299

1 minutes of the deposition.

2 The first was given to me this morning.
3 It's entitled, Harbison Walker Development of
4 Knowledge of Asbestos Hazards.

5 It's a three-page document apparently
6 prepared by the witness at some point in the past. My
7 objection to this is severalfold.

8 I won't go through all substantive
9 objections which may apply given our reservations and
10 such things, but I do object to its use today
11 recognizing that it was just given to me today, and I
12 believe in the Texas rules where this is a trial
13 deposition we should have been given more than just a
14 few hours notice of the use of an exhibit.

15 I think the rules give us 30 days, so that's
16 the first objection I would make.

17 The second is that it apparently relies upon
18 or references other articles which were not disclosed
19 prior to our receipt of this exhibit, some Ceramics
20 Abstracts and other things which are referenced and
21 not cited, and as I understand it, they're not

Page 300

Page 301

1 we can address them at a more appropriate time.

2 MR. WATERS: All right.

3 (Whereupon, a luncheon recess was taken --
4 12:32 p.m.)

5 (Whereupon, afternoon session -- 1:47 p.m.)

6 THE VIDEOGRAPHER: We're back on the record,
7 January 29th, 1997, at approximately 1:47 p.m.

8 This is the beginning of tape number two.

9 BY MR. WATERS:

10 Q Doctor, do you have a document in front of
11 you marked as Exhibit Number 19?

12 A Yes.

13 Q Can you tell us what that document is,
14 please, sir.

15 A This is a summary of development of
16 knowledge on asbestos hazards relevant to the
17 Harbison-Walker Company.

18 Q All right, sir.

19 In the context of the preparation and
20 completion of this document, can you tell us when it
21 was that this document was completed or put in its

1 relate to the Woodson standard.

2 A My opinion is that duPont had a substantial
3 basis for anticipating that Mr. Adams and people
4 similarly situated would develop occupational diseases
5 if they were not protected from asbestos dust in the
6 course of their employment.

7 MR. COTTEN: Objection. Nonresponsive.

8 Q All right. It's time to shift gears.

9 Doctor, why don't you give me the duPont
10 materials you've been reviewing, and I'll give you
11 back your stack on Harbison-Walker.

12 THE WITNESS: This might be a good time for
13 a break.

14 MR. WATERS: All right.

15 THE VIDEOGRAPHER: We're going to go off the
16 record at 12:35 p.m. We're going to switch tapes.
17 This is the end of tape number one. We're now going
18 to tape number two.

19 MR. VOGLER: I just want to note for our
20 record a couple of objections to two exhibits that I
21 expect to be used in the course of the next few

1 available in the room for our review.

2 I do understand they're referenced in Dr.
3 Castleman's book, the Fourth Edition, however, that
4 too was not listed as an exhibit 30 days in advance as
5 to Harbison-Walker, so I would object to that as
6 well.

7 So I object on timeliness grounds as to
8 this, also on grounds that it's based on things that
9 are not part of the record, are not available for our
10 review.

11 Similarly, I've been given another document
12 from -- it's a one page -- or pardon me -- it's two
13 pages.

14 It is from J. S. Robertson to John Skendall,
15 June 6th, 1973. It's a one-page memorandum with the
16 date stamp on the second page.

17 My objection to this is also on timeliness
18 grounds. This was just given to us today, and we did
19 not have forewarning of its use.

20 Other objections which I might have to these
21 I think need not be raised at this point in time, and

1 final form?

2 Was it within the last 24 hours?

3 A Yes.

4 Q Doctor, did I ask you to review certain
5 Harbison-Walker documents and other materials and to
6 provide to us your opinions concerning the status of
7 knowledge by Harbison-Walker about the hazards of
8 asbestos historically?

9 A Yes.

10 Q Is that the same type of project, for
11 example, that you completed for the Chase Manhattan
12 Bank with respect to an asbestos defendant, Turner &
13 Newall?

14 A Yes.

15 MR. VOGLER: Object to the form of that
16 question.

17 A The answer is yes.

18 Q Okay. All right, Doctor, let's take this
19 chronologically.

20 What is the first significant event that
21 you've recorded on your outline concerning

1 Harbison-Walker?
 2 A Harbison-Walker became a member of the
 3 American Ceramics Society in 1930.
 4 The American Ceramics Society published a
 5 journal called the Journal of the American Ceramics
 6 Society as well as something called Ceramics
 7 Abstracts.

8 Q What were or what was Ceramics Abstracts,
 9 what type of publication?

10 A These were abstracts or short summaries of
 11 articles that were of some technical importance or
 12 significance in the field of making refractory
 13 materials and ceramic products.

14 Q Did the Ceramic Abstracts include, for
 15 example, an abstract about the Merewether article on
 16 Asbestos and Asbestos Hazards?

17 MR. VOGLER: Object to the form.

18 Q Tell us, if you will, Doctor, what early
 19 articles of significance were abstracted in Ceramics
 20 Abstracts?

21 MR. VOGLER: Again, I object to the form.

1 disease on pneumoconioses or dust diseases of the
 2 lungs by Drinker and Clark in 1937, McConnell and
 3 Middleton in 1937, Dr. Leroy Gardner, a pathologist
 4 who was a leading authority on asbestos and
 5 occupational dust diseases of the lungs, publications
 6 by Dr. Gardner in 1940 and 1944, or rather,
 7 publications appeared as abstracts in 1940 and 1944 in
 8 the Ceramics Abstracts.

9 Also, an article by Williams in 1941. Other
 10 papers on asbestosis by Sayers and Dreessen in 1939,
 11 by Stone, in 1940, Vigliani in Italy in 1940 and Nor
 12 -- in Norway in 1947 appeared as abstracts in the
 13 Ceramics Abstracts, as well as Lanza's book which I
 14 mentioned.

15 Q Doctor, there's a reference in your outline
 16 to something called Boilermaker magazine.

17 Do you see that?

18 A Yes. The full title is Boilermaker and
 19 Plate Fabricator, and this magazine, this particular
 20 issue was published in December of 1936.

21 It includes an article called Committee

1 nonresponsive aspect of the answer which I think was
 2 all of it.

3 Q Okay. Doctor, what -- in light of the
 4 objection, just briefly can you tell us what Harbison-
 5 Walker would have learned from the references to
 6 asbestosis found in the Boilermaker magazine article?

7 MR. VOGLER: Object to the form.

8 A Well, some of the material that was quoted
 9 mainly about preventive engineering says in diseases
 10 such as silicosis and asbestosis, particles must reach
 11 the alveoli (minute air sacs of the lungs) or no
 12 silicosis or asbestosis results.

13 And there are various other statements in
 14 here about dust control techniques.

15 Q For the record, Doctor, what is the exhibit
 16 number?

17 A HW-171.

18 Q All right, Doctor.

19 What is the next entry on your outline of
 20 significance with respect to Harbison-Walker's
 21 knowledge?

1 A Well, among the first would have been the
 2 publication of Dr. Merewether regarding his survey of
 3 the prevalence of asbestosis in the asbestos industry
 4 in Great Britain in which he found that about 26
 5 percent of the individuals examined were diagnosed as
 6 having asbestosis, people who were alive and working
 7 in the industry.

8 And various statistics from this report were
 9 passed along in the Ceramics Abstracts as well as a
 10 reference to the report by its title and authors and
 11 so on.

12 Q In the time frame after 1930 can you give
 13 the ladies and gentlemen of the jury a sense of the
 14 types of articles concerning asbestos that were
 15 presented in Ceramics Abstracts?

16 MR. VOGLER: Objection.

17 A Well, there were various publications
 18 including the reference to Dr. Lanza's book, Silicosis
 19 and Asbestosis, mentioned in the Ceramics Abstracts.

20 There are other articles which I have cited
 21 on page 710 of my book, articles about asbestos and

1 Reports on Dust Control, referring to a report by the
 2 Air Hygiene Foundation, which was the early name of
 3 the Industrial Hygiene Foundation which we've
 4 mentioned.

5 When it was first formed for the first few
 6 years it was called Air Hygiene Foundation, and
 7 there's a report written by Professor Drinker of
 8 Harvard that's discussed in here, and there is
 9 reference in there to asbestosis and silicosis about
 10 the dust reaching the minute air sacs of the lungs and
 11 causing these kinds of scarring conditions in the
 12 lungs, and various quotes are enclosed from Drinker's
 13 report.

14 And this issue of Boilermaker and Plate
 15 Fabricator also has a full-page advertisement for
 16 Harbison-Walker Refractories Company and American Arch
 17 Company, Incorporated, locomotive combustion
 18 specialists, both as advertisers in a single one-page
 19 ad.

20 Q Doctor, for the record -- I'm sorry.

21 MR. VOGLER: I'd like to move to strike the

1 A The next entry is that the State of
 2 Pennsylvania in its legislation recognized asbestosis
 3 as a compensable occupational disease in its -- under
 4 its law on workers' compensation in 1939.

5 Q All right, Doctor. I think the next entry
 6 you already spoke about briefly.

7 Concerning Dr. Lanza's article, Silicosis
 8 and Asbestosis that was abstracted in the Ceramics
 9 Abstracts, what would that article or what would that
 10 abstract have indicated to Harbison-Walker concerning
 11 asbestos?

12 MR. VOGLER: Object to the form.

13 A This book contained lengthy sections of
 14 different types of medical discussions about
 15 asbestosis by different medical authorities from this
 16 country and from Great Britain, and there was also
 17 some discussion of cancer as a possible complication
 18 of asbestosis.

19 Q All right, sir. And there's a notation
 20 Harbison-Walker begins first sales/distribution of
 21 asbestos products in 1953.

WITNESS CERTIFICATION

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I, Barry Ira Castleman, Sc.D., hereby
certify that I have read the foregoing transcript of
my deposition taken in the aforementioned case on
January 29, 1997.

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

Dated this _____ day of _____, 1997.

Barry Ira Castleman, Sc.D.

ERRATA SHEET

Page No. Line No. Correction-Should Read:

Page 308

1 Where did that information come from?
 2 A This is responses in answers to
 3 interrogatories from Harbison-Walker.
 4 Q All right. What was the McIntyre-Saranac
 5 conference on occupational chest diseases that took
 6 place in 1955?
 7 A This was a meeting in Canada where
 8 occupational diseases were discussed. The guest list
 9 includes individuals from a number of companies
 10 including Harbison-Walker.
 11 This is at -- in February of 1955. And then
 12 the proceedings were published later that year.
 13 Q Who attended that --
 14 MR. VOGLER: Let me just insert an objection
 15 to the nonresponsive portion of that answer in
 16 reference to an unauthenticated document which is not
 17 in evidence.
 18 Q All right. Do you have any documentation,
 19 Doctor, that would indicate who, if anyone, attended
 20 that conference on behalf of Harbison-Walker?
 21 A Yes, there was an individual named Burger

Page 310

1 connection between asbestosis and cancer of the lung
 2 is becoming clearer.
 3 And in one series of 100 autopsies on
 4 asbestosis cases there were 25 cases of cancer of the
 5 lung.
 6 Q Does Dr. McLaughlin's paper that was
 7 presented at the McIntyre-Saranac conference in '55
 8 make any reference to the potential risk to end
 9 product users, that is to say people using or
 10 utilizing asbestos products?
 11 A Yes, it does.
 12 MR. VOGLER: Object to the form.
 13 Q Can you restate your answer in light of the
 14 objection?
 15 MR. VOGLER: My objection is to the question
 16 but --
 17 MR. WATERS: No. The problem was you
 18 overrode his answer with your objection or vice versa,
 19 so I was just trying to get a clear record.
 20 A Dr. McLaughlin does also in this article
 21 make reference to cases of asbestosis, as he calls it,

Page 312

1 Q Okay. What is the significance of, as
 2 indicated in your outline and in the documents, his
 3 receipt -- excuse me -- his request for information
 4 from McIntyre and his acknowledgment of prior receipt
 5 of documents from the McIntyre conferences?
 6 MR. VOGLER: Again, I object to the form of
 7 the question.
 8 Q Let me -- let me rephrase the question.
 9 Why don't you just tell us, Doctor, with
 10 respect to your entries for 1958 what those indicate
 11 and their basis and their significance.
 12 MR. VOGLER: Again, I object.
 13 Q You can answer.
 14 A Mr. Skendall is writing to the McIntyre
 15 Research Foundation indicating that he had asked Dr.
 16 Schepers for a copy of his paper, and he's also
 17 interested in securing his paper at this time having
 18 not been able to, and he generally -- more generally
 19 refers to the fact that he keeps binders of the
 20 proceedings of McIntyre Research Foundation
 21 conferences.

Page 309

1 who represented Harbison-Walker according to the
 2 signed guest list.
 3 MR. VOGLER: Again, I object.
 4 Q Doctor, in what way did the McIntyre-Saranac
 5 conference of 1955 point out the potential cancer risk
 6 associated with asbestos or asbestos exposure?
 7 A There was a paper presented there, and we
 8 have a publication that appeared later in 1955 in the
 9 AMA Archives of Industrial Health in which it's
 10 indicated first that the papers were read at the
 11 McIntyre-Saranac conference on occupational chest
 12 disease. And I see that I was wrong, that this
 13 particular McIntyre conference was held in Saranac
 14 Lake, New York, not in Canada. Other ones were held
 15 in Canada.
 16 In any case, this was held in February 1955,
 17 and among the papers presented was one by Dr. A. I. G.
 18 McLaughlin.
 19 Q And did Dr. McLaughlin in presenting his
 20 paper make any references to asbestos and cancer?
 21 A Yes, he does. On page 88 he says the

Page 311

1 now appearing among workers who do asbestos lagging of
 2 pipes and boilers.
 3 Q There's a reference on the outline that in
 4 1955 Harbison-Walker began to manufacture and sell its
 5 own asbestos products.
 6 Can you tell the jury where that information
 7 came from?
 8 A This was Harbison-Walker's own answers to
 9 interrogatories, I believe.
 10 Q Incidentally, Doctor, in the context of
 11 completing research and writing the book that you
 12 published -- that was published -- from time to time
 13 have you relied on sworn discovery responses from
 14 various parties in asbestos litigation?
 15 A Yes, I have.
 16 Q There's indication that in 1958 -- well, I
 17 should ask you this first.
 18 Who was John Skendall?
 19 A He was a safe -- he was the safety director
 20 for Harbison-Walker, at least in 1958 and some years
 21 thereafter.

Page 313

1 Q Okay.
 2 A That's 1958.
 3 Q What's the document reference for the
 4 record?
 5 A HW-152.
 6 Q All right. What other events of
 7 significance took place in 1958, Doctor, based on your
 8 review of the documentation?
 9 A Well, he says -- Mr. Skendall also
 10 corresponds with Ivan Sabourin in 1958 -- Mr. Sabourin
 11 was the lawyer for the Quebec Asbestos Mining
 12 Association, among other things -- and asks for
 13 additional proceedings from the symposium on
 14 cardiorespiratory diseases in Montreal held in June of
 15 1958.
 16 Q And in 1960 did Mr. Skendall attend another
 17 one of the McIntyre conferences at that time?
 18 A Yes, he did.
 19 Q Let me just ask you generally, Doctor, what
 20 is -- if there is some general significance to Mr.
 21 Skendall and Harbison-Walker's involvement with the

Page 314

1 McIntyre Research Foundation and the McIntyre
2 conferences.
3 MR. VOGLER: I object.
4 A I'm sorry. I didn't understand what the
question was.
6 Q Let me ask it again.
7 In the context of the references 1958 --
8 excuse me -- 1955, 1958, 1960, there are numerous
9 references in the documents to McIntyre conferences
10 and the McIntyre Research Foundation.
11 Is there any general significance to
12 Harbison-Walker's involvement with that organization
13 and more particularly Mr. Skendall's involvement with
14 that organization?
15 MR. VOGLER: Again, objection.
16 A Well, I think that the regular attendance at
17 the symposia indicates a continuing interest in the
18 technical aspects of industrial lung diseases caused
19 by -- caused by dusts which remain a subject of these
20 symposia.
21 Q Is that the type of information that you

Page 316

1 Hygiene Foundation?
2 A Yes, it is.
3 Q What's the -- if there is a date of
4 publication on that document, Doctor, can you see what
5 it is?
6 A 1963.
7 Q All right. And when was it when Mr.
8 Skendall -- what's the date of the letter when he
9 requested that information?
10 A That was February of 1963, I think.
11 Q Does the information or publication from
12 IHF include references to asbestosis as being a
compensable disease?
14 A Yes, it does. For example, on page 32 it
15 lists -- states with specific provisions for
16 compensation payable for the diseases of silicosis and
17 asbestosis, and a number of states are listed there
18 including Arizona, Colorado, Georgia, Maine, North
19 Carolina and several more.
20 Then there is one state listed as having
21 compensation for those diseases and an additional one

Page 318

1 getting occupational diseases on the job.
2 MR. COTTEN: Objection. Nonresponsive.
3 Q The next reference is in 1966. Let me ask
4 you, first, are you familiar or have you been prior to
5 working on this case familiar with an article in
6 Chemical Week in 1966?
7 A Yes. It was called Asbestos: Awaiting
8 Trial, and it appeared in September of 1966 in a
9 prominent trade magazine of the chemical industry.
10 Q And how is that article referenced or what
11 allusions are made to that article by Harbison-Walker
12 employees?
13 A Well, this is a handwritten note.
14 Q What's the -- just for the record, what's
15 the number?
16 A HW-162.
17 Q Okay.
18 A Makes reference to the attached Chemical
19 Week article and makes reference to the research of
20 Dr. Selikoff and Dr. Churg at Mount Sinai Hospital in
21 New York City which is discussed in this article.

Page 315

1 would expect a corporate safety director involved with
2 products that utilize silica and asbestos to be
3 interested in?
4 A Yes.
5 MR. VOGLER: Objection.
6 Q Let's go on to 1963. What, if anything, of
7 significance occurred in that year?
8 A In 1963 we have a letter, HW-167 (a) where
9 Skendall writes to the Industrial Hygiene Foundation
10 and asks for Current Status of Compensation for
11 Pneumoconioses, a legal publication.
12 The Industrial Hygiene Foundation had
13 publications on all kinds of aspects of occupational
14 diseases, and they had a group that just wrote about
15 the different laws in various states under workers'
16 compensation, for example, describing exactly how
17 those laws were phrased.
18 And this is one such publication. The
19 subtitle is -- or the title is Current Status of
20 Compensation for Pneumoconioses.
21 Q And that's published by the Industrial

Page 317

1 called Brucellosis, New Mexico.
2 Q When did North Carolina first from a legal
3 standpoint make asbestosis or asbestos disease a
4 compensable disease?
5 MR. VOGLER: Objection.
6 MR. COTTEN: Object to the form of the
7 question.
8 Calls for opinion by this witness outside
9 his area, state of expertise.
10 A Okay.
11 Q And I'm -- yeah, go ahead, Doctor.
12 A The literature reflects that there was a
13 major legal case called McNeeley in North Carolina in
14 1934, I think, and this case led to the enactment of
15 legislation where occupational diseases and explicitly
16 including asbestosis were recognized under the
17 workers' compensation statutes.
18 Previous to that there had been some efforts
19 by workers to sue their employers, so this was -- this
20 was a way of resolving that short of giving affected
21 workers the option of suing their employers for

Page 319

1 Dr. Selikoff's research dealt with the
2 mortality of people in the asbestos insulation trade.
3 Q The referenced and attached Chemical Week
4 article, does it include any information concerning
5 asbestos and cancer or cancer caused by asbestos?
6 A Yes, it does. One of the sentences here
7 is -- references the U.S. Public Health Service to the
8 effect that in the past 30 years the asbestos-related
9 cancer rate has increased sixfold.
10 Q All right, sir.
11 Do you know the -- is the basis of that
12 statement Selikoff fig -- Selikoff's figures or can
13 you tell from the article?
14 MR. VOGLER: Objection.
15 A You cannot tell exactly from the article
16 what they're referring to as the primary source.
17 Q All right. And the document itself, HW-162,
18 to whom is that addressed, the request to get a copy
19 of the Selikoff study?
20 A John Skendall, the safety director.
21 Q Okay. In your review of the documents what

Page 320

1 did you find to be of significance in the year 1967?
 2 A Here they have a laboratory investigation
 3 conducted by the Harbison-Walker Refractories Company,
 4 and they're looking at samples of their products
 5 recovered from the roofs of open hearth furnaces at
 6 Bethlehem Steel Corporation.
 7 They wanted to see what had -- how much
 8 deterioration had occurred in the product after 397
 9 heats of this open hearth furnace.
 10 Q All right. And what was the conclusion with
 11 respect to whether or not asbestos was still present
 12 after the heating process?
 13 A Well, they found asbestos, once you went
 14 down past about an inch and a half below the hot face
 15 surface in the furnace.
 16 Q All right.
 17 A And they have various pictures as well
 18 showing that.
 19 Q How did Harbison-Walker react to -- later in
 20 the year 1967, to that finding that there was
 21 unaltered asbestos present in the open hearths after

Page 321

1 397 heats?
 2 MR. VOGLER: Object to the form.
 3 Q Let me rephrase the question in light of the
 4 objection. Well, let me ask you first.
 5 The document you were just referring to,
 6 that was HW-257, correct, Doctor?
 7 A Right.
 8 Q Okay. Did you review additional
 9 documentation from later in 1967 that indicated how
 10 Harbison-Walker reacted to the prior report that you
 11 just discussed?
 12 MR. VOGLER: Again, I object to the form.
 13 A Yes. I believe this is a communication to
 14 Bethlehem Steel Corporation.
 15 Q All right. What's the HW number on that
 16 one?
 17 A I'm afraid there isn't one on the page I
 18 have here. It's part of my confusion.
 19 Q Oh, let's see.
 20 A December 27, I think, 1967, but I'm not
 21 sure.

Page 322

1 Q Let me see that very quickly, Doctor.
 2 A (Indicating).
 3 Q Okay. Do you have --
 4 A The 1967 document seems to pick up on the
 5 same theme.
 6 Q Okay. Is that HW-86 you're looking at?
 7 A Yes, it is.
 8 Q Okay. What does HW-86 indicate in 1967 in
 9 response to HW-257?
 10 MR. VOGLER: Objection.
 11 A Well, it reviews the stress on the open
 12 hearth roof and the studies that have been conducted.
 13 They go into considerable detail about the types of
 14 stress, various temperatures and so forth.
 15 Q Does the document -- or in the document does
 16 Harbison-Walker recommend that roofs using the Nucon
 17 bricks be provided with asbestos rollboard?
 18 A Yes. On page 6, the last page of this
 19 document HW-86, they say based on this discussion we
 20 recommend that all Exkase Nucon and Exkase Nucon 60
 21 roofs up to three-sixteenths of an inch per foot

Page 323

1 expansion allowance should be provided with asbestos
 2 rollboard --
 3 Q All right.
 4 A -- and that the asbestos thickness should
 5 not exceed an eighth of an inch.
 6 Q Bear with me one second.
 7 (Whereupon, pause.)
 8 Q Continuing in your outline, Doctor, 1972 did
 9 you have an opportunity to review HW-94?
 10 A Yes, I have.
 11 Q And what was the significance, if any, of
 12 that document?
 13 A Well, they are writing back here to
 14 Bethlehem Steel acknowledging that they've shipped the
 15 company brick with asbestos rollboard as filler strips
 16 between the brick and the metal case.
 17 Harbison-Walker correspondence says that we
 18 do not consider this a hazardous product in the form
 19 that it is being used.
 20 Q Is there any effort on the part of Harbison-
 21 Walker in that document to advise Bethlehem Steel of

Page 324

1 the potential hazards of asbestos generally?
 2 MR. VOGLER: Object to the form of the
 3 question.
 4 A There's nothing about here about the hazards
 5 of it -- nothing in here about the hazards of asbestos
 6 except the statement that we feel that we cannot
 7 substitute for the asbestos filler strips at this
 8 time.
 9 That's the only --
 10 Q All right.
 11 A -- only thing that suggests that there might
 12 have been some concern about the asbestos and the
 13 desire to find a safer substitute.
 14 Q All right. The next referenced document in
 15 1972 is HW-95.
 16 Can you tell me what you found to be
 17 significant in that particular document?
 18 A Well, here it's noted the Occupational
 19 Safety and Health Administration has started up by
 20 this time. It was a new agency.
 21 And the federal regulation of worker health

Page 325

1 hazards under OSHA included targeting certain
 2 substances to be given special attention. And the
 3 first line of this document, an interoffice
 4 correspondence of Harbison-Walker from Mr. Skendall,
 5 says asbestos dust is one of the five target
 6 substances to be given special attention under OSHA.
 7 And he then asks a number of questions about
 8 the ways in which asbestos is used, the number of
 9 people involved, precautions in effect, whether there
 10 have been inquiries or complaints from the employees.
 11 Q All right. In the documentation that you
 12 were provided and that we were provided, did you see
 13 any response to this particular Skendall memorandum?
 14 A No.
 15 MR. VOGLER: I'm going to object to the form
 16 of that question.
 17 Q I'm going to strike -- I'm going to withdraw
 18 that question.
 19 The next document that you make reference to
 20 in your outline, Doctor, is HW-104, and I don't think
 21 that is in your stack. Let me hand you a copy of it.

Page 326

1 Let's go off the record for a second while I find
2 this.
3 THE VIDEOGRAPHER: We're going to go off the
4 record at 2:20 p.m.
(Whereupon, discussion off the record.)
(Whereupon, a brief recess was taken -- 2:20
7 p.m.)
(Whereupon, after recess -- 2:32 p.m.)
9 THE VIDEOGRAPHER: 2:32 p.m. We're back on
10 the record.
11 BY MR. WATERS:
12 Q Doctor, have you had an opportunity to
13 review HW-104?
14 A Yes, I have.
15 Q And can you tell us what that document is,
16 and I guess tell us, first, the date of the document.
17 A This is dated August 16th, 1972, and it's an
18 intercompany memorandum titled, Standards for Asbestos
19 Dust, and it begins with a sentence Harbison-Walker
20 has been acutely aware of the asbestos problem for
21 many years.

Page 328

1 1972?
2 A It's consistent with the other information
3 that we reviewed on Harbison-Walker prior to 1972.
4 Q The next document referenced in your outline
5 is HW-103.
6 A Yes.
7 Q Can you tell -- give us a date first on
8 HW-103.
9 A There's a cover memorandum or a cover letter
10 from an insurance company. It looks like it says
11 received -- a handwritten received 10-2-72.
12 The writer of this is Norman Zeiser,
13 Z-e-i-s-e-r, and it's sent to Dresser Industries,
14 Harbison-Walker Refractories.
15 Q Just in general, without quoting or citing
16 from the article, can you tell us what the article
17 indicates concerning possible exposures in excess of
18 OSHA limits?
19 MR. VOGLER: Objection.
20 A The letter encloses a report of surveys that
21 were conducted about -- to see the extent of worker

Page 330

1 the standards, are those referring to two separate
2 incidents or are they referring to the same incident?
3 MR. VOGLER: Object to the form.
4 A It's not absolutely clear, but it -- oh,
5 hold it. Yes, there's reference to a July 19, 1972
6 survey.
7 So yes, this is the same -- this is all
8 about the same investigation and report of the
9 investigation at this Fulton, Missouri plant of July
10 1972.
11 Q Moving on into 1973, did you have an
12 opportunity to review documentation of a request for
13 information from the Canadian Refractories Division?
14 A Yes.
15 Q Tell us a little bit about that.
16 A Well, this is dated June 6th, 1973, and
17 they're asking about whether there have been problems
18 with the use of asbestos shorts in your castables,
19 asbestos shorts meaning the cheap grade, the short
20 fibers of asbestos.
21 Q Does that -- let me ask you, first, that

Page 327

1 Q Who is the author of that memorandum and
2 that statement?
3 A It appears to be D. R. Pflaumer,
4 P-f-l-a-u-m-e-r. The two names on the upper left
5 corner are his name and the name of P. E. Fisch,
6 F-i-s-c-h.
7 One is the writer of the memorandum and the
8 other is the recipient.
9 Q Doctor, based on your review of the
10 documentation prior to 1972, which we've been going
11 over the past period of time, let me ask you, first,
12 if you believe the statement in HW-104 that you just
13 read to be true and accurate.
14 MR. VOGLER: Objection.
15 A Yes, I do. It's consistent with the
16 documentation we've been reviewing.
17 Q Well, that was my next question. In light
18 of the objection I'll ask it as well.
19 Do you find that the statement contained in
20 HW-104 to be consistent or inconsistent with the
21 information and the documentation available prior to

Page 329

1 exposure in the plant to noise, clay dust and asbestos
2 dust, and it is indicated that some of the workers in
3 the plant were exposed to asbestos levels that
4 exceeded the amounts tolerated by the OSHA standard at
5 the time.
6 MR. VOGLER: Objection. Move to strike.
7 Q All right, sir. The next document
8 referenced is HW-105.
9 Can you tell us what about that document, if
10 anything, you found to be significant.
11 A Well, they make reference to Mr. Zeiser's
12 survey of the Fulton, Missouri plant. This is a
13 letter back to this Insurance Company of North America
14 from John Skendall dated November 8, 1972.
15 He makes reference to the fact that an
16 asbestos count of 8.55 fibers in the Specialties
17 Plant, main floor, had been reported in Table II of
18 the report, and Mr. Skendall expresses some surprise
19 at this because this was, as he says, a wet product.
20 Q Just to be clear on this, the indication in
21 HW-103 and the indication in HW-105 of violations of

Page 331

1 document doesn't have an exhibit number on it, does
2 it?
3 A No.
4 Q Okay. Does the document indicate anything
5 about the Canadian Refractories Division having some
6 problems because the workers are concerned about
7 working with asbestos?
8 A Well, it says, I might add that the problem
9 is imminent and there is considerable difficulty
10 getting men to work with the material.
11 Q All right. Do you have documentation on Mr.
12 Skendall's response to this request from the Canadian
13 Refractories Division?
14 A No, I don't think so.
15 Q There's a reference --
16 A Oh, yes, hold it. There's a -- HW-323
17 mentions Canadian Refractories. Please bear with me a
18 moment.
19 (Whereupon, pause.)
20 A Yes, this appears to be a response to Mr.
21 Robertson of Canadian Refractories Division.

Page 332

1 Q And what does Mr. Skendall tell Mr.
2 Robertson concerning Harbison-Walker's experience and
3 whether or not they have been in excess of OSHA
4 limits?

5 A He says, I have had tests made at all four
6 operations and analysis showed that we are within the
7 TLV, in parentheses, (Threshold Limit Value) required
8 by OSHA. Therefore, we do not even use respirators.

9 Q How does HW-323 and the statement from
10 Skendall that the companies within OSHA limits compare
11 with HW-103 and HW-105 that you previously discussed?

12 MR. VOGLER: Objection.

13 A It's not consistent with the earlier
14 documentation suggesting that there were exposures in
15 violation of the OSHA limits already recorded in some
16 Harbison-Walker operations.

17 Q Assuming that HW-103 and 105 are true and
18 correct documents, do you have an understanding as to
19 why Skendall would indicate that Harbison-Walker was
20 continuing to not use respirators in 1973?

21 MR. VOGLER: Objection.

Page 334

1 workers.

2 Q If you could turn to the 1974 document HW-82
3 and tell us what you felt to be significant about
4 that.

5 A I think at this point they were considering
6 putting warning labels on these products. I'm trying
7 to find the specific language that they used.

8 Q Doctor, can you tell us when, for example,
9 Johns-Manville first put warnings on its asbestos-
10 containing products?

11 A That was in 1964.

12 Q All right.

13 A This HW-82 is a bit of a confused exhibit
14 because it starts with two pages from 1955, and then
15 the Bates numbering continues onto a document called
16 Asbestos Dust which appears to be from 1970.

17 MR. WATERS: Yeah, let's go off the record
18 for a second. We don't need to -- yeah, let's go off
19 the record. I just wanted to see if y'all can clear
20 that up for me or if it makes any sense to you.

21 MR. VOGLER: It was probably just a stapling

Page 336

1 whether or not Harbison-Walker had been in excess of
2 allowable limits previously?

3 A He says we were within the OSHA allowable
4 limit at GRC, which is a small intermittent operation
5 at Baltimore, and he says we were not only well within
6 the present allowable limit but within the more strict
7 limit which will be effective July 1, 1976.

8 At Hammond, he says, we were also well
9 within the allowable limit. At Fulton, however, we
10 were in excess of the allowable limit.

11 I believe that present tests would show that
12 we are still considerably in excess of the allowable
13 limit.

14 Q Now, how does that statement from Mr.
15 Skendall square with his statement made on HW-323
16 where he stated that they were generally within OSHA
17 limits?

18 MR. VOGLER: Objection.

19 A It's inconsistent. I mean one of these
20 obviously is not correct.

21 Q All right.

Page 333

1 A Well, in the United States as well as in
2 Canada there was publicity about the hazards of
3 asbestos, and there might have been apprehensions that
4 management had about labor unrest which would be
5 stirred up by handing out respirators to the workers
6 in the United States operations of Harbison-Walker at
7 that time.

8 MR. VOGLER: Objection and move to strike as
9 grossly speculative.

10 Q If, in fact, there were exposures in excess
11 of OSHA limits at the Fulton plant in 1972 and in 1973
12 Mr. Skendall indicated that respirators were not being
13 used, would that have -- would the failure to use
14 respirators have also been in violation of the OSHA
15 regulations?

16 MR. VOGLER: Objection.

17 A Quite likely. The respirators were seen
18 under the regulations as a last resort so that if
19 exposures were not in -- you know, in accord with the
20 regulations, if they exceeded the limits, then
21 respirators were supposed to be provided to the

Page 335

1 error through your office or somebody's office in
2 copying.

3 MR. WATERS: Well, the --

4 MR. VOGLER: I have no information --

5 THE VIDEOGRAPHER: Excuse me. Do you want
6 to go off the record?

7 MR. WATERS: Sure.

8 THE VIDEOGRAPHER: At 2:33 p.m. we're going
9 off the record.

10 (Whereupon, discussion off the record.)

11 THE VIDEOGRAPHER: 2:44 p.m. We're back on
12 the record.

13 BY MR. WATERS:

14 Q Turn, if you will, Doctor, to the documents
15 from the 1975 time frame and specifically to HW-108.

16 A Yes, I have that in front of me.

17 Q What's the date of that document and who is
18 it authored by?

19 A This is from Mr. Skendall called Asbestos
20 Dust Hazards.

21 Q What does in 1975 Mr. Skendall say about

Page 337

1 A Either that or this information he stated in
2 January 1975 is referring to something that Mr.
3 Skendall wasn't aware of earlier, but that doesn't
4 seem likely in view of the other documentation.

5 MR. VOGLER: Objection. Move to strike as
6 speculation.

7 Q Does Mr. Skendall make a reference to a
8 October 27, 1972 letter in this particular document,
9 HW-108?

10 A Yes, he does. He says that he had suggested
11 in this letter at the current pace of safety
12 legislation use of asbestos will be uneconomical for
13 us at some future date.

14 It might be well, however, if it is not too
15 expensive for our GRC people to investigate the
16 possibility of a safer substitute material.

17 Q And again, who is this memorandum addressed
18 to, HW-108 from Mr. Skendall?

19 A This is to Mr. H. J. Johnson, Pittsburgh
20 office.

21 Q Okay. Turn, if you will, to HW-109

Page 338

Page 339

1 What does HW-109 indicate with respect to
2 the possibility of eliminating or taking asbestos out
3 of certain products?

4 A The -- this memorandum from an individual
named Don Stock, interoffice correspondence of
Harbison-Walker Refractories, says please consider
7 what might be done to eliminate asbestos from
8 Chromepak G.

9 Q All right. Turn, if you will, to HW-270,
10 the next document on your outline.

11 A Yes.

12 Q Just give us the date, if you can, and the
13 author of this particular document.

14 A This is dated April 28th, 1975 and from R.
15 L. Wuske, W-u-s-k-e, to Dr. -- I'm sorry, to D. F.
16 Stock at the Garber Research Center, interoffice
17 correspondence of Harbison-Walker.

18 Q What does the memo state with respect to
19 OSHA and OSHA's involvement with asbestos, asbestos
20 regulation?

21 A Well, they make the connection between OSHA

1 regulation and the need for substitution here.

2 He says that on Chromepak G we do need a
3 suitable substitute for asbestos. The sooner the
4 better.

5 As you know, asbestos is one of the
6 materials on the hazardous list submitted by OSHA.

7 As long as we are using the material we are
8 inviting OSHA inspections.

9 Q All right, sir. Turning to the next
10 document -- I think they go together -- HW-329 and

11 HW-64 -- let me just ask you, to try to speed this up,
12 does HW-329 state a recommendation to eliminate two of
13 the asbestos-containing products that Harbison-Walker
14 was selling at that time?

15 A I'm sorry. Which document were you asking
16 me about?

17 Q HW-329.

18 A Again, they're talking about Chromepak G.
19 We have asked GRC to continue their search for a
20 potential substitute for the asbestos in Chromepak G
21 and will be willing to cancel this product as soon as

Page 340

Page 341

1 a suitable substitute can be found.

2 He says, however, for the present we
3 recommend continuing it.

4 Q All right, sir. And then do you also have
5 HW-64?

6 A Yes, I do.

7 Q What does that -- well, give me a date of
8 that, if you can.

9 A January 5 -- oops. This looks like 5,
10 1975. Oh, 5, 1975. Okay. So it's May 19th, 1975.

11 Q Does that indicate a sale of a thousand bags
or sacks of asbestos product to -- I think to
Indianapolis?

14 A Yes, it does.

15 Q All right. Still in 1975 on the third page
16 of your memo -- well, excuse me, of your outline --
17 there's an indication that a number of documents
18 reference continuing to utilize all available stocks
19 of asbestos fiber even though a nonasbestos substitute
20 had been found.

21 A Yes. For example, HW-332 speaks in that

1 vein.

2 MR. VOGLER: Objection.

3 A It says we would suggest that the old
4 product mix be continued long enough to fully utilize
5 all stocks of asbestos so that this item can be
6 completely eliminated from our manufacturing process
7 as soon as possible.

8 Q Doctor, in your opinion, based on your
9 research on a number of companies in this regard, why
10 would a company continue to utilize available stocks
11 of asbestos fiber once nonasbestos substitute had been
12 found?

13 MR. VOGLER: Objection.

14 A Well, it's usually because the company has
15 accumulated reserve stocks of raw materials, and they
16 wish to sell them rather than try and dispose of them
17 in some less lucrative way.

18 Q In 1976, Doctor, you make a reference to
19 HW-124.

20 A I don't think I have that one here.

21 Q All right. Let's see. What I've done in

Page 342

Page 343

1 your outline, just so you know, Doctor, is I've
2 skipped past 329, 332, 333 and 367 just in the
3 interest of time, the labor, the obvious.

4 A Well, I'm afraid I don't have 124.

5 Q Okay. Let me see.

6 Why don't you hand me what you've got,
7 Doctor, and I'll see if I can speed this up.
8 (Whereupon, pause.)

9 Q Here it is (indicating).

10 A Thank you.

11 Q What is 124 and the attachment, Doctor?

12 A This is a communication from the National
13 Institute for Occupational Safety and Health,
14 something which originated from NIOSH in the United
15 States Government.

16 Q And is it sending certain information or
17 attaching certain information to Harbison-Walker
18 concerning asbestos?

19 A Yes. This is dated March 31, 1977, and this
is a little transmittal memo to Mr. Skendall, and
21 attached to that is a December 15th, 1976 memorandum

1 from the director of the National Institute for
2 Occupational Safety and Health.

3 Q What does that document indicate concerning
4 the possibility of establishing a safe exposure for
5 the carcinogenic activity of asbestos?

6 A Well, it states that they really can't come
7 up with any level of exposure which they consider to
8 be totally free from risk.

9 They say because it is not possible to
10 specify a safe exposure level for a carcinogen, only a
11 ban on the use of asbestos can ensure complete
12 protection against this material's carcinogenic
13 effect.

14 MR. VOGLER: Objection. Move to strike.

15 A And he goes on to recommend that the
16 exposure limits be set at 100,000 fibers per cubic
17 meter which would have been a 20-fold reduction from
18 the exposure limits that were about to take effect --
19 which had taken effect earlier that year.

20 Q All right. The next notation on your
21 outline is with respect to HW-337, the Skendall

Page 344

1 memorandum of April 29 --
 2 A Right.
 3 Q -- 1977. Do you see that?
 4 A Yes, I do.
 5 Q Okay. Let me ask you, first, what would
 6 IOSHA, I-O-S-H-A, what would that refer to?
 7 A Well, he indicates in parentheses that
 8 that's the state of Indiana Occupational Health and
 9 Safety Administration, the state level of OSHA.
 10 Q And in what way has Harbison-Walker been
 11 interacting with IOSHA at this point in time?
 12 A Well, it had been cited for violation of the
 13 asbestos regulations.
 14 Q At a plant presumably in Indiana?
 15 A Presumably in Indiana, yes, at the Hammond
 16 Works.
 17 Q Okay. Does it indicate what the position
 18 was of the Indiana OSHA regulators concerning asbestos
 19 used at the Hammond facility?
 20 MR. VOGLER: Objection.
 21 A Yes, it does. It says the IOSHA people are

Page 345

1 after us to advise them on the approximate date when
 2 the use of asbestos will be discontinued and if not,
 3 the approximate date when we will begin medical
 4 surveillance. I will appreciate your advice regarding
 5 this, he says.
 6 Q And this is authored by Mr. Skendall?
 7 A Yes, it is.
 8 Q Does Mr. Skendall go on to state that he
 9 will try to hold off as long as possible giving
 10 Indiana OSHA a definite reply?
 11 A Yes.
 12 MR. VOGLER: Objection.
 13 Q Okay. In light of the objection, what does
 14 Mr. Skendall indicate that his course of action is
 15 going to be in terms of responding to Indiana OSHA?
 16 A Well, the last sentence says I will try to
 17 hold off as long as possible giving them a definite
 18 reply.
 19 Q And again, this is in 1977?
 20 A Right.
 21 Q All right. The next document referenced is

Page 346

1 HW-139.
 2 A Yes.
 3 Q Can you tell me the date of that document?
 4 A This is dated July 25, 1978.
 5 Q And who is the author of that document?
 6 A This is one written by C. F. Wenrich,
 7 W-e-n-r-i-c-h, W-e-n-r-i-c-h.
 8 Q And what does Mr. Wenrich indicate with
 9 respect to Harbison-Walker's substitute program for
 10 its remaining asbestos products at that time?
 11 A Well, it says that trials are underway
 12 involving expansion material other than asbestos for
 13 two situations they describe, Crucible, Midland and
 14 Lukens Steel.
 15 Q Does he indicate or characterize Harbison-
 16 Walker's efforts to that point in time concerning a
 17 substitute program?
 18 A He does. He says I want to stress that we
 19 are not initiating trials involving asbestos
 20 substitutes.
 21 The program started in April 1976 to find

Page 347

1 acceptable substitute -- to find an acceptable
 2 substitute was a defensive measure to prepare us for
 3 the eventuality that the use of asbestos would be
 4 restricted.
 5 We still consider this a defensive program
 6 although we are in a much better position to consider
 7 various alternatives should any of our customers
 8 insist on the elimination of asbestos expansion
 9 allowance.
 10 Q All right. And lastly, there's a reference
 11 in 1980 to 1982 from answers to interrogatories on
 12 your outline indicating that Harbison-Walker finally
 13 ends sales of remaining asbestos products.
 14 Do you see that?
 15 A Yes.
 16 Q And can you tell us -- tell the jury again
 17 where that information came from?
 18 A From the company, the company's answers to
 19 interrogatories in this case.
 20 Q All right. Doctor, based on your review of
 21 the Harbison-Walker documents that we've just

Page 348

1 discussed and based on your understanding of the
 2 medical and scientific literature concerning the
 3 hazards of asbestos, do you have an opinion based on
 4 reasonable medical science -- reasonable scientific
 5 probability as to whether or not Harbison-Walker was
 6 negligent in manufacturing and selling asbestos
 7 products until 19 -- at least 1975 without any type of
 8 warning or precautionary labelling?
 9 MR. VOGLER: I object to the form of the
 10 question as well as the substance, which we can
 11 address later.
 12 Q Do you have an opinion in that regard,
 13 Doctor?
 14 A Yes, I do.
 15 Q And what is that opinion?
 16 MR. VOGLER: same objection.
 17 A I believe the company should have been
 18 applying warning labels and seeking substitute
 19 formulas for making its products well before 1975.
 20 Q Do you have an opinion, Doctor, as to
 21 whether or not the Harbison-Walker asbestos-containing

Page 349

1 products, at least the ones that included cement --
 2 cementitious-type products that were mixed, whether or
 3 not those products would have been unreasonably
 4 dangerous? And by that I mean more dangerous than
 5 would have been anticipated by the ordinary consumer
 6 who would have been exposed to those products.
 7 MR. VOGLER: I object to the form of the
 8 question.
 9 A Yes, I do have an opinion about that.
 10 Q And what is your opinion, sir?
 11 A My opinion is that it would have been much
 12 more dangerous than contemplated by the users of the
 13 products absent some warning.
 14 MR. VOGLER: I have the same objection to
 15 the second question.
 16 Q Based on Harbison-Walker's continuation of
 17 manufacture and sales of asbestos products until the
 18 1982 time frame in its failure to provide warnings, at
 19 least until 1975 if not subsequently, as well as all
 20 the other documentation you have reviewed, do you have
 21 an opinion as to whether or not Harbison-Walker was

Page 350

1 grossly negligent?
 2 MR. VOGLER: Again, I object to the form of
 3 the question.
 4 I think it's hopelessly vague.
 5 Q You can answer, Doctor.
 6 A Yes, I do.
 7 Q And what is your opinion?
 8 A Yes, I think the company was grossly
 9 negligent in its failure to put warning labels on its
 10 products for so many years and in dragging its feet on
 11 the question of substitution of asbestos with safer
 12 materials.
 13 MR. WATERS: All right. I'll pass the
 14 witness.
 15 MR. VOGLER: Why don't we take a few
 16 minutes.
 17 MR. WATERS: Okay.
 18 THE VIDEOGRAPHER: We're going off the
 19 record at 3:03 p.m.
 20 (Whereupon, discussion off the record.)
 21 (Whereupon, a brief recess was taken -- 3:03

Page 351

1 p.m.)
 2 (Whereupon, after recess -- 3:26 p.m.)
 3 (Whereupon, Castleman Deposition Exhibit
 4 Number duPont 1 was marked for identification.)
 5 THE VIDEOGRAPHER: 3:26 p.m. We're back on
 6 the record.
 7 EXAMINATION
 8 BY MR. COTTEN:
 9 Q Dr. Castleman, my name is Larry Cotten. I'm
 10 here today representing the duPont Company.
 11 I was present for your deposition in this
 12 case that you gave the first day of back in November
 13 of last year, and I'm here to both question you about
 14 what you've talked about today as well as what you
 15 talked about back in November.
 16 First of all, I've handed you and you're
 17 leaving through an exhibit that's been marked as
 18 duPont 1.
 19 And do you recognize that as a series of
 20 documents that begin with an affidavit of service of a
 21 subpoena in this case?

Page 352

1 A Yes.
 2 Q And does that page 1 of duPont 1 show an
 3 affidavit of service where you were served with a
 4 subpoena to appear for this deposition here today?
 5 A Yes, it does.
 6 Q And at the second page of duPont 1 that you
 7 have there, does it show that you were commanded by
 8 the Circuit Court for Baltimore City to appear at this
 9 deposition at 9:00 a.m. this morning, January 29th?
 10 MR. WATERS: At 9:00 a.m.?
 11 MR. COTTEN: Yes, sir.
 12 MR. WATERS: That's when you noticed it for?
 13 MR. COTTEN: Yes, sir.
 14 MR. WATERS: I thought we had an agreement
 15 that it was going to start at 10:00.
 16 MR. COTTEN: We didn't have an agreement,
 17 but that's okay.
 18 MR. WATERS: I did not send you a letter
 19 saying when the deposition was going to start?
 20 MR. COTTEN: I didn't get a letter from you,
 21 Andy, and we were here ready to go.

Page 353

1 MR. WATERS: Well, how did you know about
 2 this date if you didn't get a letter from me?
 3 MR. COTTEN: We talked about the day.
 4 MR. WATERS: Okay.
 5 THE REPORTER: One at a time.
 6 MR. COTTEN: And I cross-noticed this
 7 deposition for 9:00 a.m. And this witness knows that,
 8 and this witness knows he was subpoenaed to appear at
 9 9:00 a.m. I'm just asking him these things.
 10 MR. WATERS: Well, I -- whatever.
 11 MR. COTTEN: Right.
 12 Q And I didn't hear your answer. Were you
 13 subpoenaed to appear today at 9:00 a.m. here?
 14 A The subpoena says 9:00 a.m. on this date. I
 15 did not notice the time.
 16 Q All right.
 17 MR. WATERS: I might add, just for the
 18 record, that other counsel were with me in the
 19 breakfast room at 9:00 a.m. or shortly thereafter, and
 20 maybe you were here, Mr. Cotten, but no one else was
 21 aware that you intended to commence at that time.

Page 354

1 MR. BEVEL: Well, I'm not going to let you
 2 speak for me because I didn't have any idea when the
 3 deposition started. I just knew it started today.
 4 And I showed up and looked at your -- looked at the
 5 board outside that said you had this room reserved
 6 from 8:00 to 5:00, and the only reason I came in to
 7 have breakfast was because I saw you in there having
 8 breakfast.
 9 MR. WATERS: well, I don't --
 10 MR. BEVEL: I don't want you to speak for my
 11 intent --
 12 MR. WATERS: I appreciate that.
 13 MR. BEVEL: -- that I knew that the depo
 14 started at 9:00. I had no idea if it started at 8:00,
 15 9:00 or 10:00.
 16 MR. WATERS: And I don't mean to speak to
 17 your intent.
 18 MR. BEVEL: And that's all I was trying to
 19 correct for the record.
 20 MR. WATERS: Having said that we contacted
 21 Mr. Cotten's office last week. They told us that they

Page 355

1 had not made any arrangements for a court reporter or
 2 a videographer or a room, and we did so, and we did so
 3 with the understanding the deposition was going to
 4 commence at 10:00.
 5 MR. COTTEN: I very much appreciate you
 6 doing those things since this is a continuation of
 7 your own deposition.
 8 MR. WATERS: well, then I guess the depo
 9 started when I wanted it to start, not when you wanted
 10 it to.
 11 Q The next thing, the second page of
 12 Deposition Exhibit 1, duPont 1 indicates that you were
 13 to produce documents, commanded to produce documents
 14 by this court that are indicated on Exhibit A attached
 15 to the deposition notice which is a part of duPont
 16 Number 1.
 17 Do you see that?
 18 A I see that.
 19 Q And during the direct examination today of
 20 you by Mr. Waters, you did provide me an opportunity
 21 to look through documents in a file that you've called

Page 356

1 your duPont file.
 2 A Right.
 3 Q And with the exception of that, did you
 4 bring any of the other documents that are called for
 5 by Exhibit A and are required to be bring -- to be
 6 brought to this deposition according to the subpoena
 7 from the court here in Baltimore?
 8 A I haven't brought anything else, no.
 9 MR. WATERS: Well, Barry --
 10 THE WITNESS: I brought in my book. I
 11 brought the Sixth -- the Fourth Edition of my book.
 12 MR. WATERS: I think he previously at the
 13 last deposition brought his CV which was marked as an
 14 exhibit.
 15 Q Right. And to be completely fair, at the
 16 last deposition you brought in addition to that a
 17 document entitled, Transactions 25th National Safety
 18 Congress, and a document entitled, National Safety
 19 News dated September 1935, and a document entitled,
 20 National Safety Council Transactions dated 1966.
 21 Would that be the extent of the documents

Page 358

1 sent back in October or whatever?
 2 MR. COTTEN: I think so, yes.
 3 MR. WATERS: Okay. The reason I say that is
 4 because Dr. Castleman and I spent a fair amount of
 5 time last time going through whatever it was you asked
 6 for last time without you telling me -- and I'm sure
 7 you will -- what the distinctions are.
 8 MR. COTTEN: All right. Well, I want to go
 9 through it in light of the fact that some of the
 10 things that are called for in this subpoena have not
 11 been produced and determine whether or not they exist.
 12 Q If you would, we'll go through this one by
 13 one.
 14 On Exhibit A to duPont Exhibit I, Number 1,
 15 it calls for you to bring all documents of any type or
 16 nature which show the subject matter of your testimony
 17 to be made at the trial of this case.
 18 Is it your testimony that the documents that
 19 you've produced here today are the only ones that show
 20 the subject matter of your testimony?
 21 A That's what I would expect.

Page 360

1 in the library, but I mean, it's articles and
 2 magazines. You can get it as easily as we can.
 3 If the doctor doesn't have it in his
 4 physical possession, then he's not going to bring it
 5 to you.
 6 Having said that and being the nice guy that
 7 I am, I brought those all with me, my own personal
 8 archives, and if you wish to have a chance to review
 9 them during the course of the remainder of the
 10 deposition you may.
 11 MR. COTTEN: Okay. We will see what you've
 12 got and see if it's everything he's referred to.
 13 Q Number 2. All documents of any type or
 14 nature which show the substance of the facts, mental
 15 impressions and opinions to which you will testify at
 16 the trial of this case.
 17 Do you believe that you've brought all of
 18 those?
 19 A Yes, I think so.
 20 Q All documents of any type or nature which
 21 show the grounds for each of your opinions regarding

Page 357

1 that you have brought with you at this deposition?
 2 MR. WATERS: Let me just, just to clarify,
 3 we also brought the Stopps deposition with us this
 4 morning --
 5 MR. COTTEN: All right, sir.
 6 MR. WATERS: -- and the attached exhibits.
 7 MR. COTTEN: Right.
 8 THE WITNESS: I think that covers it.
 9 Q All right, sir.
 10 Now, have you reviewed the Exhibit A which
 11 is the list of the matters that I wanted you to bring
 12 here today according to the subpoena?
 13 A I looked at it.
 14 MR. WATERS: I let me interpose a question.
 15 Is that the same document list that you sent
 16 to us first time around?
 17 MR. COTTEN: No, I don't think so. I think
 18 this one is the one that was attached to the amended
 19 cross notice of intention to take his deposition.
 20 MR. WATERS: But is it any different in the
 21 context of the documents request than the one that you

Page 359

1 Q All right. What about all of the documents
 2 that you referred to in your examination -- in Mr.
 3 Waters' examination of you today concerning all of the
 4 articles and medical reports and so forth that you
 5 refer to as a part of your testimony?
 6 MR. WATERS: We brought those as well.
 7 They're right here on the floor in chronological
 8 sequence starting with 1907 or 1934 looks like.
 9 MR. COTTEN: Okay.
 10 Q According to my count from your deposition
 11 of November the 6th, 1996 there were 51 documents that
 12 you referred to.
 13 MR. WATERS: Oh, are you referring to the
 14 articles?
 15 MR. COTTEN: Every article, every document
 16 that he's referred to in his deposition. In order for
 17 the defendants in this case to be able to make a
 18 complete cross-examination of him, we need to know
 19 what he was talking about.
 20 MR. WATERS: Well, I'm not going to disagree
 21 with you on that. I mean, having said that, it's all

Page 361

1 this case.
 2 Have those been produced at this deposition?
 3 A I think so. The opinions were rendered as
 4 the documents were discussed.
 5 Q Okay. I understand that the opinions were
 6 rendered as the documents were discussed, but at the
 7 time that you rendered those opinions on November the
 8 6th, 1996 you didn't produce the documents.
 9 The documents -- you were doing this as I --
 10 as best I could tell from memory; is that accurate?
 11 A I honestly don't recall. I haven't read a
 12 transcript of what happened on November the 6th. I've
 13 been deposed a half a dozen times since then in other
 14 cases. I've been in some trials. And it's a
 15 little -- I'm at a disadvantage trying to answer your
 16 question.
 17 Q Okay. I'm not trying to -- let me just make
 18 a representation to you, sir, that with the exception
 19 of the three documents that were produced concerning
 20 the duPont Company, any testimony that you gave during
 21 the course of November the 6th, 1996 did not -- was

Page 362

1 not accompanied with the production of the document.
2 Number 4. All notes, letters, documents,
3 writings of any type or nature which have been given
4 to, shown to, or reflect what you were told by the
5 following persons regarding this case: The Plaintiff
6 Janie Adams.

7 Have you been provided any of those items by
8 the Plaintiff Janie Adams?

9 A No.

10 Q All notes, letters, documents, writings of
11 any type or nature that you've been provided by Mr.
12 Waters.

13 Have you produced those?

14 A That's been produced.

15 Q Have you -- have there been any documents
16 that you've been given or shown, including any notes
17 from Mr. Waters, that you've not produced --

18 A No.

19 Q -- at this deposition?

20 Just prior to my examination of you, Mr.
21 Waters came over to you and spoke to you quietly

Page 363

1 before we started.

2 Would you tell me what he said to you, sir.

3 A Well, at one point I was asking when we'd be
4 able to get out of here today, and that may have been
5 what we were talking about.

6 At another point he said something about how
7 you were going to go over this exhibit list with me
8 when he saw that you were listing this as duPont --

9 Q He was just advising you that I was going to
10 go through that?

11 A Right.

12 Q The next subdivision of Number 4 is all
13 notes, letters, documents, writings of any type or
14 nature that have been given to you with respect to the
15 duPont Company.

16 A I don't think there's anything --

17 Q All right.

18 A -- there.

19 Q All notes, letters, documents, writings of
20 any type or nature that you've received from any
21 consulting experts on matters relating to this case.

Page 364

1 A There's nothing there.

2 Q All right, sir. Number 5 asks you to
3 produce all drafts, outlines, notes of any reports or
4 other writing that you have prepared regarding this
5 lawsuit.

6 A You have it.

7 Q All documents of any type or nature which
8 contain, relate to, or reflect the factual
9 observations made by you regarding this case.

10 A To the extent that that's been documented
11 you have that too.

12 Q All right, sir. All documents of any type
13 or nature which show the tests performed by or for you
14 regarding this case.

15 A Nothing responsive to that.

16 Q All right. Have you performed any tests --

17 A No.

18 Q -- with respect to this case?

19 All documents of any type or nature which
20 show any supporting data utilized by you regarding
21 this case.

Page 365

1 A Well, to the extent that there is anything
2 it's been produced.

3 Q All right, sir. All documents of any type
4 or nature which show any calculations that you've made
5 in this case.

6 A There's nothing there.

7 Q Any photographs, videotapes or audiotapes
8 that you have regarding this case.

9 A There's nothing responsive to that.

10 Q A copy of each deposition previously given
11 by you.

12 A I have given -- I have been subjected to
13 over 100 depositions, and I don't keep copies of them.

14 Q All right. Do you have copies of any of
15 them?

16 A I might have one or two from about ten years
17 ago. I'm not sure if I do.

18 Q Okay. You didn't check for that when you
19 got the subpoena?

20 A No. I mean, I have to congratulate you.

21 This is the longest duces tecum list of demands that I

Page 366

1 have ever received in my many years of service in the
2 judicial process.

3 Q Thank you. It was -- after learning that
4 you'd been testifying for about 22 years it was not
5 very difficult to prepare such a list.

6 A Oh, I don't doubt that.

7 Q I would request, sir, that tonight when you
8 go back home in order for you to bring yourself into
9 compliance with the subpoena, that you look to see if
10 you've got those deposition copies. If you would
11 bring them I'll copy them at my own expense.

12 Will you do that?

13 A Let's see what the risks of requirements is
14 here.

15 Q Okay. I'm just talking about --

16 A We'll just make a list right now.

17 Q I need to know though if you will look and
18 see if you have those deposition copies, and if you
19 have them you'll bring them.

20 MR. WATERS: I think what he's saying is why
21 don't we see what else, if anything else, falls into

Page 367

1 that category of things you want him to search for,
2 and we can ascertain how much time is involved, how
3 much potential cost and anything of that nature. And
4 once you finish this process, if we finish this
5 process today, we should have a sense of what else
6 there may be, if anything.

7 MR. COTTEN: I appreciate what you're
8 saying, but I want to know whether he'll bring those
9 depositions if he's got them.

10 THE WITNESS: Let's just put that off until
11 we get to the end of the list.

12 Q Are you refusing to --

13 A I understand --

14 MR. WATERS: No, he's not refusing anything.

15 MR. COTTEN: Okay. I'm asking him if he'll
16 bring it.

17 MR. WATERS: And he's telling you we will
18 defer a response to that issue till we finish this
19 list --

20 MR. COTTEN: Okay.

21 MR. WATERS: -- which hopefully we will

Page 368

1 encourage you to finish the list today.
 2 Q A copy of all trial testimony previously
 3 given by you.
 4 A I don't keep that stuff.
 5 Q All documents, records or curriculum vitae
 6 regarding your training and experience.
 7 MR. WATERS: All right. Let me just note
 8 that that's already been provided. The CV's been
 9 provided.
 10 MR. COTTEN: Right.
 11 THE WITNESS: Yeah, you have the CV.
 12 Q And is that CV comprehensive?
 13 A Yes.
 14 Q All right, sir. All correspondence from any
 15 of Lester Adams' physicians or other experts or
 16 consultants in this case.
 17 A There isn't any.
 18 Q Any and all diagnostic models, casts and
 19 tools used, which were relied upon you with respect to
 20 the diagnosis of the medical conditions.
 21 And you haven't done that?

Page 370

1 request of Mr. Waters?
 2 A Yes.
 3 Q Can you tell us the approximate number?
 4 MR. WATERS: Trial or deposition?
 5 MR. COTTEN: Tell me the number of cases.
 6 That's what I asked.
 7 MR. WATERS: well, let me just make a
 8 distinction for the record.
 9 When he testifies in a discovery deposition
 10 it's at the request of a defense attorney.
 11 When he testifies in trial or in a video
 12 deposition it's at the request of the plaintiff's
 13 attorney.
 14 Q Let me ask you this then.
 15 Do you know how many cases that you've been
 16 designated as an expert witness in cases in which Mr.
 17 Waters is involved?
 18 A No.
 19 Q Do you know if you've been designated as an
 20 expert in Mr. Waters' cases in more than just this
 21 lawsuit?

Page 372

1 Q All documents pertaining to -- I'm sorry.
 2 I'm skipping around here.
 3 All articles, books or other publications
 4 written by you where such literature has been
 5 published or will be published in the future.
 6 A Well, I don't quite understand what that
 7 means, but I've provided you a CV, and I've brought in
 8 the Fourth Edition of my book.
 9 Q Okay. Do you have any other publications
 10 that you have written whether they've been formally
 11 published to this date or will be published in the
 12 future that you maintain?
 13 A Well, I've written a lot of things.
 14 MR. WATERS: You mean by manuscripts?
 15 A Do you want -- do you want copies of
 16 everything I've ever published that I have in my
 17 possession?
 18 I'm 50 years old.
 19 Q Right. That's my request.
 20 A I've been writing stuff for a long time.
 21 Q That's my request.

Page 369

1 A No, I don't practice medicine without a
 2 license.
 3 Q All right, sir. Although you did write a
 4 book that's entitled, Medical and Legal Aspects of
 5 Asbestos; is that correct?
 6 A That's right.
 7 Q All right. Any and all documents or other
 8 tangible materials prepared by any expert used for
 9 consultation.
 10 Are there any of those?
 11 A No.
 12 Q All correspondence with all attorneys in
 13 this lawsuit.
 14 Is there any of that?
 15 A No.
 16 Q Have you ever received any correspondence
 17 from Mr. Waters or anyone at his office?
 18 A He's probably sent me copies of documents at
 19 some time or another in connection with some case or
 20 another, but I can't recall anything specifically.
 21 Q Have you testified in other cases at the

Page 371

1 A I assume so, but I don't know any more about
 2 that.
 3 Q All right. Do you know when you were
 4 designated as an expert witness in this case?
 5 A No.
 6 Q Have you ever prepared a list of cases in
 7 which you have testified live or by deposition?
 8 A Yes, I have.
 9 Q Do you have such a list?
 10 A Yes, I do.
 11 Q Would you bring that list tomorrow when we
 12 resume this deposition?
 13 Do you want to defer the answer to that one
 14 too?
 15 A Yeah, why don't we just put that on the
 16 request list.
 17 Q Okay. All brochures, advertising or other
 18 documents given to the public attorneys or potential
 19 clients or published in any media by or about you.
 20 A I don't think there's anything responsive to
 21 that.

Page 373

1 A You're entitled to make your request.
 2 Q All right, sir. Do you want to defer the
 3 answer to that one? Okay.
 4 All documents pertaining to the analytical
 5 methods or protocols used by you in this case.
 6 A I don't think there's anything responsive to
 7 that.
 8 Q Did you in doing the research that you've
 9 done -- and I understand from your prior testimony
 10 that you've been researching the question about
 11 asbestos for many years -- did you ever devise any
 12 type of particular methodology or protocol about how
 13 to go about such an exercise?
 14 A Yes, it's Chapter 10 of my book.
 15 Q You've already told us you've not performed
 16 any tests.
 17 Number 22. All documents which contain a
 18 description of equipment used, maintenance logs for
 19 the specific instruments used, and standard operating
 20 procedures for instrument operation with respect to
 21 tests. That wouldn't --

Page 374

1 A Nothing there.
2 Q All documents pertaining to source and
3 certification of standards.
4 A Nothing there.
5 Q All authoritative or pertinent references
6 utilized by you or any other employee of you for the
7 the interpretation of data generated.
8 You didn't do any testing, so that doesn't
9 apply.
10 25 doesn't apply.
11 Do you ever utilize standardization curves?
12 A Not in connection with this litigation.
13 Q All right, sir.
14 MR. WATERS: what kind of curves?
15 MR. COTTEN: Standardization curves.
16 MR. WATERS: What are those?
17 MR. COTTEN: I'll tell you when you take my
18 deposition.
19 Q I want to skip through 27 because I think
20 that that's already been called for.
21 Number 28. Copies of any written

Page 376

1 litigation group.
2 MR. BEVEL: Can I seek a point of
3 clarification?
4 MR. COTTEN: Sure.
5 EXAMINATION
6 BY MR. BEVEL:
7 Q Dr. Castleman, are you saying that
8 previously you've had such a correspondence file,
9 you've produced it to a certain defense lawyer who
10 requested such, and you produced the originals without
11 keeping copies for yourself?
12 A Right.
13 Q Therefore purging yourself of those
14 documents?
15 MR. WATERS: Well, I want to object to that
16 characterization.
17 Q I don't mean it to be insidious in any
18 fashion, but basically you had a original set of your
19 correspondence documents to and from the organizations
20 listed, and you gave those over in discovery to a
21 defense lawyer in not seeking a copy back.

Page 378

1 defendants, you're saying that you gave it to Scotty
2 Baldwin and then Scotty Baldwin spread it?
3 A These were depositions where I was asked to
4 bring boxes and boxes of documents that were from my
5 files done, and I did so.
6 And you know, after having been through this
7 a few times, I was not real anxious to have to go
8 through it for the rest of my life, and I was very
9 pleased to just leave the documents with whichever
10 plaintiff's lawyer they may have been with. And this
11 has been some time.
12 Q Well, what I'm trying to clarify is when you
13 say -- you make this statement that they've been given
14 many defense lawyers, is that an assumption you're
15 making that Scotty Baldwin made those copies available
16 to many defense lawyers?
17 Are you saying that you yourself have
18 produced that box over and over again for many defense
19 lawyers?
20 A Well --
21 Q I'm trying to make that distinction.

Page 375

1 correspondence which you have sent to or received from
2 any organization that represents any concern in the
3 asbestos litigation whether a defendant, plaintiff or
4 litigation group.
5 Do you have any such documents?
6 A I produced a historic correspondence that I
7 had in my files to defendants on several occasions. I
8 never requested to get it back.
9 Q Are you saying you don't have it?
10 A I have some more recent correspondence which
11 I have accumulated since the last time I was given a
12 request like this.
13 We'll put that on the list of things that
14 you want.
15 Q All right, sir.
16 MR. WATERS: Let me just make sure I
17 understand. That's correspondence with plaintiff's
18 counsel in asbestos litigation?
19 MR. COTTEN: It has to do with any
20 organization that represents any concern in the
21 asbestos litigation whether defendant, plaintiff or

Page 377

1 A No, I produced it. I think some plaintiffs'
2 lawyers -- I think Scotty Baldwin may have had some of
3 that stuff down in Texas somewhere. I never asked him
4 to return it.
5 Q That was going to be my question.
6 If you've given away those original
7 documents that do not, and you've not kept copies
8 yourself, could you identify for us who would have
9 those. Other than Scotty Baldwin, a plaintiff's
10 lawyer in Texas, is there anybody else that we could
11 go to to seek those documents?
12 A I can't remember any more. It's just junk.
13 It's never come back to me, and it's been produced in
14 numerous defendants in asbestos litigation.
15 I think if it was of any value to anybody at
16 this table, I would have seen that stuff again and
17 again and it would be in transcripts and other
18 documents readily available to you all.
19 Q And if I could just explore what you're
20 saying.
21 When you say it's been produced in numerous

Page 379

1 A It's hard for me to make much of a
2 distinction.
3 It's deposition that I was at where the
4 documents were put on the table and the defendants,
5 you know, had, you know, a feeding frenzy with the
6 documents.
7 Q Okay. And that occurred -- the circumstance
8 that you're saying occurred in --
9 A This has occurred repeatedly over the last
10 15 years.
11 Q To the best of your knowledge, Scotty
12 Baldwin has those documents?
13 A He's the only one I can think of that might
14 have that stuff.
15 MR. BEVEL: Thanks. I'm sorry.
16 MR. COTTEN: That's no problem.
17 EXAMINATION
18 BY MR. COTTEN:
19 Q Dr. Castleman, was Scotty Baldwin a lawyer
20 in Texas, in East Texas -- was he representing you
21 with respect to those documents?

Page 380

1 A No.
 2 Q Was there ever a proceeding where those
 3 documents were at issue and you had either Mr. Rex
 4 Houston or Mr. Scotty Baldwin representing you
 5 concerning the production of those documents?
 6 A They never represented me, but there was a
 7 dispute over the production of the correspondence for
 8 some time because I felt a little nervous about it.
 9 I thought that, you know, if I produce
 10 letters I got from plaintiffs' lawyers, the next thing
 11 I know, I'm going to get sued by some plaintiff's
 12 lawyer for disclosing some attorney work product to a
 13 defendant, and nobody's going to be protecting me.
 14 I mean, I'm going to be nothing but a clay
 15 pigeon for a bunch of lawyers having target practice.
 16 Q Do you believe the documents that you're
 17 provided by plaintiffs' lawyers, whether you're
 18 designated to testify in a case, constitute attorney
 19 work product?
 20 MR. WATERS: Well, I might -- he's not
 21 qualified.

Page 382

1 Number 29. Copies of any written
 2 correspondence which you have sent to or received from
 3 any governmental agency regarding asbestos, asbestos-
 4 related disease, the current defendants or any former
 5 defendants of these lawsuits, or relating to
 6 regulation of any industry that utilizes
 7 asbestos-containing products.
 8 A I've been professionally active in dealing
 9 with governmental agencies on the subject of asbestos
 10 regulation since 1970.
 11 I have scattered around, and not in very
 12 good shape, various files that might relate to that.
 13 That stuff has nothing to do with this litigation.
 14 It would be extremely burdensome for me to
 15 try and pour through whatever -- whatever dusty files
 16 I've got and try and find the stuff that relates to
 17 asbestos and separate it from the stuff that's with it
 18 that may not relate to asbestos, that has to do with
 19 my correspondence and activities in connection with
 20 public health protection from asbestos over the last
 21 26 or 7 years.

Page 384

1 Number 32. Do you have an agreement with
 2 the plaintiff or her lawyer in this case setting forth
 3 the terms and conditions of your services as a
 4 consultant or expert witness?
 5 A There's no written agreement.
 6 Q All right. Number 33. All diplomas,
 7 certificates, licenses, or degrees conferred on you by
 8 any college, university, technical institute, or
 9 institution of specialized learning.
 10 Now, without asking you to produce those
 11 specific things, are all those reflected on your CV?
 12 A They are.
 13 Q Number 34. All books, journals, monographs,
 14 studies, reports, articles of a scientific nature,
 15 technical literature, product literature, or other
 16 materials which you consulted, reviewed or relied on
 17 in developing your opinions that you stated in this
 18 case.
 19 A I suppose that's all there by way of
 20 reference in my book and in the documents which we've
 21 produced.

Page 381

1 MR. COTTEN: I know. I'm just asking if he
 2 believes that. I didn't ask him for an opinion about
 3 it.
 4 A For some time I did believe that. You know,
 5 now I'm under the impression that it's probably not
 6 attorney work product under the definitions, at least
 7 of some states --
 8 Q All right.
 9 A -- but that wouldn't keep me from getting
 10 sued perhaps for turning it over to you.
 11 Q And those documents that you turned over to
 12 Scotty Baldwin, those are your documents?
 13 A They were, yes.
 14 Q And did you -- you turned them over to Mr.
 15 Baldwin for purposes of the litigation that involved
 16 those documents?
 17 A Right.
 18 Q But they were your documents when you turned
 19 over the possession to him?
 20 A Right.
 21 Q All right, sir.

Page 383

1 Q Recognizing what you're saying and not
 2 arguing about what long of a period that we're talking
 3 about and that it might constitute a lot of paper and
 4 it might constitute a lot of time, we are talking
 5 about a subject that goes back a number of years and,
 6 according to your testimony, back to, at least, 1907
 7 that relates to this lawsuit.
 8 So I would ask you -- I'm going to put this
 9 as a request on my list, and will you let me know when
 10 we get to the end of the list whether or not you're
 11 willing to produce these documents?
 12 A I think we're going to have a problem with
 13 that one.
 14 MR. WATERS: Yeah, I think we are too.
 15 MR. COTTEN: That's fine.
 16 Q Number 30. With regard to the reference
 17 ranges that were used to rely upon, you said you
 18 didn't perform any tests, so that knocks out Number 30
 19 in its entirety.
 20 Number 31 relates to tests, so that does not
 21 apply.

Page 385

1 Q Do you have things that are in addition to
 2 what you've produced even though they may be
 3 referenced in your book?
 4 A You mean, do I have copies of some of the
 5 things that are referenced in my book?
 6 Q Yes, sir.
 7 A Yes, I have copies of things that are
 8 referenced in my book.
 9 Q I'm going to put that on my list too.
 10 A Go ahead.
 11 Q Number 35. All reports, summaries,
 12 printouts, or similar writings containing the results
 13 of your searches of the scientific or technical
 14 literature on asbestos, the uses and applications of
 15 asbestos, or any combination of foregoing.
 16 Do you have any of those materials?
 17 A I can't think of anything specifically that
 18 responds -- that's responsive to that.
 19 Q Okay. Number 36. Copies of all articles,
 20 reports, or monographs which you have authored or
 21 co-authored and which have been published in any

Page 386

1 magazine, journal, compendium, or book or which has
 2 been distributed at any technical, scientific, or
 3 professional convention, meeting or seminar.
 4 A It's all there by way of reference on the
 5 CV.
 6 Q Do you have the primary documents that are
 7 referred to in the CV?
 8 A Some of them.
 9 Q We'll put that on my list.
 10 A Do you want every book, every chapter in
 11 every book, every article I've ever written?
 12 Q Yes, sir.
 13 A Sure. Go ahead. What's next?
 14 Q Number 37 has already been covered, I
 15 believe.
 16 Number 38. All books, journals, monographs,
 17 studies, reports, articles of a scientific nature,
 18 technical literature, product literature, or other
 19 materials which you consulted, reviewed, or relied
 20 upon in developing your opinions.
 21 A I think that's redundant in view of the

Page 388

1 A No.
 2 Q Number 41 goes back to what I asked you a
 3 little earlier concerning a methodology or protocol
 4 that you have that you say was -- is illustrated in
 5 Chapter 10 of your book.
 6 Do you have any documents, books, treatises,
 7 articles, or papers that you relied upon in selecting
 8 that methodology?
 9 A I can't think of anything. I mean, it's
 10 pretty basic.
 11 If you want to know everything that happened
 12 in the history of an industry, you find everything you
 13 can find about the history of the industry.
 14 Q Number 43. All documents of any type or
 15 nature which contain, relate to, or reflect the
 16 factual observations made by the witnesses regarding
 17 this case.
 18 You have indicated that you have produced or
 19 given us everything that you've seen that's specific
 20 to this case; is that correct?
 21 A Yes.

Page 390

1 Q All right. I think we've boiled this down
 2 then to Number 11, which would be a copy of each
 3 deposition previously given by you, and of course I
 4 can only ask for what you've got.
 5 Are you willing to produce those?
 6 A Yes.
 7 Q Number 18. A list of all cases in which
 8 you've testified live or by deposition.
 9 Are you willing to produce that?
 10 A Yes.
 11 Q You told us about Chapter 10.
 12 Number 28. Copies of any written
 13 correspondence which you have sent to or received from
 14 any organization that represents any concern in the
 15 asbestos litigation whether a defendant, plaintiff or
 16 litigation group.
 17 A I'll give you what I have. It probably goes
 18 back about three or four years since the last time I
 19 was bothered with this kind of request.
 20 Q I appreciate it.
 21 Would you have any objection to any of the

Page 387

1 previous 37.
 2 MR. WATERS: Well, I mean, let me just note,
 3 for the record, that it's obviously -- it's unclear if
 4 you're referring to his opinions in this case or
 5 opinions --
 6 MR. COTTEN: I'm really just -- I mean to
 7 limit it to the opinions in this case.
 8 MR. WATERS: Okay. I think, yeah, we've
 9 covered that then.
 10 MR. COTTEN: All right.
 11 Q Number 39 would also be covered by that
 12 then.
 13 Number 40 is all documents which reflect or
 14 show your work in reaching your opinions in this
 15 matter.
 16 Do you have any such documents?
 17 A No. I mean aside from what's been produced.
 18 Q Do you have any time records --
 19 A No.
 20 Q -- and descriptions of what you've done with
 21 respect to this case?

Page 389

1 Q 44 has been covered.
 2 45. All documents referenced and testified
 3 about by you in the first portion of your deposition
 4 that took place on November 6th, 1996.
 5 MR. WATERS: That's the 51 articles or
 6 whatever?
 7 MR. COTTEN: That would be the approximate
 8 51 articles.
 9 And that's what you believe that you have;
 10 is that right, Mr. Waters?
 11 MR. WATERS: I can't be 100 percent certain
 12 because obviously the Doctor has a lot better
 13 understanding and knowledge of these articles than I
 14 do, but I do have a collection of articles that are
 15 referred to in his book -- in the book, and I think
 16 it's a lot more than 51, so I believe that most if not
 17 all of the 51 would be covered in there.
 18 MR. COTTEN: Okay. We'll try to work out
 19 something with you where maybe at the close of today
 20 we can go through and see which ones are on here and
 21 which ones aren't.

Page 391

1 defendants in this case contacting Mr. Baldwin and
 2 seeing if he still has what you provided to him?
 3 A No. Go ahead.
 4 Q And if he has it can we obtain it directly
 5 from him?
 6 A Yes.
 7 Q Thank you.
 8 Number 29. Copies of any written
 9 correspondence which you have sent to or received from
 10 any governmental agency regarding asbestos, asbestos-
 11 related disease, the current defendants or any former
 12 defendants of these lawsuits, or relating to
 13 regulation of any industry that utilizes
 14 asbestos-containing products.
 15 A I'm afraid I'm not willing to comply with
 16 that unless ordered to by the court.
 17 MR. WATERS: Yeah. It strikes me that there
 18 may well be some confidentiality issues in those types
 19 of documents.
 20 MR. COTTEN: Those can be raised.
 21 MR. WATERS: Let me just, for the record,

Page 392

1 ask the Doctor anything about the correspondence files
 2 that he just asked you that would in any way reflect
 3 any of the opinions you've given in this case?
 4 THE WITNESS: They don't have anything to do
 5 with this case. It's pure harassment, in my humble
 6 opinion.
 7 MR. COTTEN: I'd have to see the documents
 8 before I could know.
 9 MR. WATERS: I must have missed one. Okay.
 10 MR. COTTEN: Number --
 11 MR. WATERS: Okay. That's right.
 12 Correspondence.
 13 Q 34 would be the books, journals, monographs,
 14 studies, reports, articles of scientific nature,
 15 technical literature, product literature or other
 16 materials which you consulted, reviewed or relied on
 17 in developing your opinions in this case.
 18 MR. WATERS: We've covered that, yeah.
 19 Q And it's your belief -- and I want to make
 20 sure I understand this -- that to the extent that Mr.
 21 Waters is going to allow us to review the documents

Page 394

1 particular one is going to be an issue because I think
 2 that today we haven't talked about any new articles
 3 with the exception of what has been produced today
 4 So what we're dealing with, as I understand
 5 it, is approximately 51 articles that were referenced
 6 in the first deposition.
 7 Q And to make it easier, what we'll do is
 8 we'll look at what Mr. Waters is going to produce for
 9 us after this deposition is concluded today, and then
 10 we'll let you know.
 11 I'll let you know tomorrow if there are any
 12 additional documents that aren't covered in that
 13 group.
 14 And I'm not asking you to go out and perform
 15 any new research or anything, but if you've got access
 16 to those, if you could send them to Mr. Waters so that
 17 I could get them.
 18 MR. WATERS: Yeah. And as a practical
 19 matter it would better for us to clarify that tomorrow
 20 because, for example, there are two or three -- like
 21 some articles were published in different -- the same

Page 396

1 more broader than that.
 2 Q And again, I'm only asking for what you
 3 have.
 4 A On asbestos?
 5 Q On asbestos with respect to technical,
 6 scientific or professional conventions, meetings or
 7 seminars.
 8 A There's probably nothing there because as
 9 soon as -- you know, either I write the thing up for
 10 publication and I keep the publication or you know --
 11 Q If you run across something like that when
 12 you're looking for these other things if you'd,
 13 please, produce it.
 14 A All right.
 15 Q You've already told us in Number 38 that all
 16 of the matters that you're relying upon in developing
 17 your opinions have been disclosed in this deposition;
 18 is that right?
 19 A Yes, I think so. Between what's in my book
 20 and what's been discussed and actually presented to
 21 you, I think we've got it covered.

Page 393

1 that he's brought that you referred to in your
 2 deposition on the first day, and anything that you
 3 referred to today, to the extent that we look at
 4 those, if there are any other of those matters that
 5 weren't produced, would you be willing to find those
 6 for us?
 7 MR. WATERS: Just so I'm clear on this, what
 8 he's saying is if some of the articles are for some
 9 reason not included in the materials I have, which, by
 10 the way, I got from an old Castleman deposition in San
 11 Francisco I think, and if you have them, will you
 12 produce them?
 13 MR. COTTEN: Right. I'm not asking you to
 14 go back to the libraries.
 15 A But you're talking about an exhaustive
 16 search of, you know, stuff that's not always in very
 17 good order, or put in a very findable place for --
 18 MR. WATERS: I don't think that this --
 19 A -- what might prove to be a dozen or two
 20 dozen or three dozen documents.
 21 MR. WATERS: I don't think that this

Page 395

1 article published in different journals and there may
 2 be some overlap there.
 3 MR. COTTEN: Sure.
 4 MR. WATERS: He can explain that. I can't.
 5 MR. COTTEN: we'll work through that.
 6 Q Number 36 is the request that you produce
 7 the articles, reports or monographs that you've
 8 authored and published in any magazine, journal,
 9 compendium, or book that's been distributed to any
 10 technical, scientific or professional convention,
 11 meeting or seminar.
 12 MR. WATERS: That is not publications but --
 13 MR. COTTEN: Just matters that have been
 14 typed up or prepared and distributed at technical,
 15 scientific, professional convention, meeting or
 16 seminars.
 17 MR. WATERS: Related to asbestos?
 18 MR. COTTEN: Yes.
 19 THE WITNESS: Oh, okay.
 20 MR. COTTEN: That's a little narrower.
 21 THE WITNESS: I interpreted that as being

Page 397

1 Q I think that is -- that does cover it.
 2 I want to now go back over some of the
 3 things that you talked about on November 6th, 1996 in
 4 answer to Mr. Waters' questions of you.
 5 Of your 1996, 1997 professional life, sir,
 6 how much of your laboring hours are spent at the
 7 behest of attorneys or plaintiffs?
 8 MR. WATERS: On a yearly? I'm sorry. I
 9 misunderstood the question.
 10 Q During the year 1996, 1997.
 11 A I would say probably about 15, 20 percent of
 12 my time is involved in some way or another with
 13 asbestos --
 14 Q Okay.
 15 A -- litigation.
 16 Q I'd limited that to work time as opposed to
 17 all time.
 18 Would that be a greater percentage of your
 19 work time?
 20 A No. That's what I was talking about.
 21 Q All right. Thank you.

Page 398

1 Now, as far as your income in 1996 and 1997,
2 what percentage of that income would be derived from
3 working with litigation-related matters?
4 A I'm sure it's well over half, but I don't
know any more specifically. Most of the things I work
on pay me little or nothing.

7 Q With -- in your education, sir, in your
8 undergraduate work, did you take any courses that were
9 specific to asbestos?

10 A No.

11 Q In your work on your Master's degree, did
12 you take any courses that were specific to asbestos?

13 A No, although asbestos was discussed as a
14 topic in some of those courses.

15 Q Okay. Which of those courses was it
16 discussed?

17 A I can't even remember without looking at the
18 transcript now. It's been over 25 years.

19 Q Would it be correct -- I think I've seen in
20 -- from previous times that you've testified that
21 you've testified that you took a course in air

Page 400

1 education?

2 Q Yes, formal education.

3 A Four years for the Bachelor's degree in
4 chemical engineering, I think a year and a half to get
5 the Master's degree in environmental engineering, and
6 a little less than four years to get the doctorate
7 from the School of Public Health.

8 Q And you would have started your
9 undergraduate education in what year?

10 A 1964.

11 Q At that time in 1964 and during the four
12 years that you were working on your undergraduate
13 work, was the Johns Hopkins Medical School located at
14 or near the same facility where you were going to
15 school?

16 A No. Well, it's across town. It's a couple
17 miles away.

18 Q All right, sir.

19 Did the Johns Hopkins Medical School become
20 recognized or designated as a school with particular
21 expertise concerning cancer?

Page 402

1 during your undergraduate time at Johns Hopkins that
2 were specifically limited to the topic of the dangers
3 or hazards of asbestos?

4 A Oh, no. Well, first of all, I didn't know
5 anything about the dangers or hazards of asbestos at
6 the time, but I'm sure that the undergraduate courses
7 were much broader based and not focused on public
8 health.

9 It's only since I was there as an
10 undergraduate that they've started to have some
11 encouragement for undergraduates to go over to the
12 School of Hygiene and take a course or two.

13 That didn't exist back in the days when I
14 was there.

15 Q So you didn't take any courses at the School
16 of Hygiene or the school didn't exist when you were
17 there?

18 A I didn't take any courses there when I was
an undergraduate.

19 Q Do you know if they have any courses that
20 are specific and limited to the topics of asbestos and
21

Page 399

1 particulates?

2 A Well, there was one course on the physics of
3 inhaled particles in the respiratory tract, and there
4 were other courses where it may have come up.

5 It's already getting a little hard to
6 remember whether they talked about asbestos, but I was
7 interested in it at the time. I may have raised it in
8 one or two of the courses as a student.

9 Q And then as in seeking your doctorate
10 degree, did you take any courses that were specific to
11 asbestos?

12 A They weren't specific to asbestos, but there
13 were courses on occupational lung disease and other
14 topics in which the hazards of asbestos were
15 discussed.

16 They didn't have courses just about asbestos
17 at the Johns Hopkins School of Hygiene and Public
18 Health.

19 Q And your education spanned how many years,
20 sir?

21 MR. WATERS: You mean his post-high school

Page 401

1 A Not as far as I'm aware. I mean, there are
2 many aspects to that question you've asked.

3 The only kind of facet of that question I'd
4 have any familiarity with would be occupational cancer
5 as opposed to such things as cancer treatment, cancer
6 research, mechanisms of cancer, viral causes of
7 cancer, et cetera, et cetera.

8 I mean, they do a lot of work on cancer at
9 Hopkins, I'm sure, for with which I have no
10 familiarity.

11 Q Does the medical school itself at Johns
12 Hopkins, during the time that you were going to
13 school, have any courses that were specific to
14 occupational cancers?

15 A I don't think so. I think they went over to
16 the School of Public Health if they wanted to learn
17 about that stuff.

18 We had courses on the epidemiology of
19 environmental and occupational cancer and occupational
20 lung disease that I mentioned.

21 Q Were there courses available to you to take

Page 403

1 hazards of asbestos?

2 A You mean now?

3 Q Let's talk about while you were going to
4 school. From 1964 through your undergraduate, do you
5 know if there was courses in the School of Hygiene?

6 A No, I very much doubt there were just about
7 asbestos. There aren't today, and I don't think there
8 would have been way back then.

9 Q Would that be true both then for your mas --
10 during the time that you were there for your Master's
11 degree and the time that you were there for your
12 doctorate?

13 A Right. I mean, I would have certainly taken
14 such a course if they offered it, and I would have
15 known about it if they offered it.

16 I might have helped them teach it.

17 Q In the late 1970s you state that you were --
18 you stated in your testimony back in November that you
19 were approached by the EPA.

20 Were you hired or did you become an employee
21 of the EPA in the late '70s?

Page 404

1 A I was hired as a consultant.
 2 Q How long were you a consultant, and what did
 3 you consult on?
 4 A About two years I was consulting on the
 5 subject of asbestos substitutes. The EPA held a
 6 conference on that in 1980.
 7 Q And did you attend that conference?
 8 A Yes, I did.
 9 Q Have you ever been a full-time teacher?
 10 A No.
 11 Q Now, with respect to the thesis that you
 12 wrote for your Master's, was that an extension of your
 13 work that you were originally hired to perform with
 14 respect to asbestos litigation in Texas?
 15 A No. It preceded any involvement in asbestos
 16 litigation by about five years.
 17 Q When was your first -- what was your first
 18 involvement with respect to doing any research that
 19 had to do with the question of asbestos?
 20 A 1976.
 21 Q And when did you do your Master's thesis?

Page 406

1 A 1970 and '71.
 2 Q When is the first time that you had contact
 3 with an attorney concerning asbestos and litigation?
 4 A The first I can recall is being invited to
 5 testify in a case in Texas in 1976.
 6 Q Now, part of your methodology in arriving at
 7 your opinions that you've stated in this case is to --
 8 over the time that you began studying asbestos was to
 9 gather documents and records and testimony; is that --
 10 is that accurate?
 11 A Yes.
 12 Q And independent of reading these various
 13 items, did you do anything out to check -- did you do
 14 anything to check out the facts and theories as
 15 espoused in those publications to determine the
 16 accuracy, the truth of the facts, and whether the
 17 theories were accurate?
 18 MR. WATERS: Let me just -- I'm a little
 19 confused. I thought your initial question didn't
 20 reference publications. Your subsequent question
 21 did.

Page 408

1 read everything with skepticism, and as I have
 2 accumulated a more complete and comprehensive
 3 knowledge of the history of what happened with
 4 asbestos in this country and in the world, I have a
 5 lot of ways of sometimes confirming facts expressed in
 6 one source or another even if these things are
 7 self-serving in some of the sources wherein they
 8 appear.
 9 For example, Johns-Manville says they put
 10 warning labels on their products starting in 1964, and
 11 yet none of the workers who used the products seem to
 12 remember seeing warning labels back then.
 13 Well, if you look at the size and placement
 14 and language of the warning labels you can sort of see
 15 how that might have happened, but the fact of them
 16 using warning labels on the shipping cartons is
 17 something which is independently confirmed by
 18 Owens-Corning internal documents, by trade association
 19 documents of the National Insulation Manufacturers
 20 Association.
 21 So I feel fairly confident that Johns-

Page 405

1 A 1970 and '71.
 2 Q What was it that drew your attention to
 3 asbestos in that time period?
 4 A Well, as someone who was just getting
 5 involved in the field of public health and air
 6 pollution control, I was skeptical of the importance
 7 of the problem, and before deciding to devote my only
 8 lifetime to dealing with it, in some part, I started
 9 to read about the health effects of the various air
 10 pollutants because I wanted to know, assuming we
 11 control sulfur oxide air pollution or whatever, is it
 12 going to make that much of a difference in people's
 13 lives or is it just going to mean that people won't
 14 get sore eyes from smog in Los Angeles? I mean, is
 15 that all we're going to get?
 16 So I started reading the health effects
 17 literature on different air pollutants, and when I got
 18 to asbestos I was really impressed by the fact that
 19 the stuff was absolutely deadly and was being used in
 20 a totally wanton, uncontrolled manner.
 21 Q And this would have been in what year?

Page 407

1 And I didn't understand your first question
 2 to be focused, for example, on articles.
 3 Q Okay. Let me rephrase the question.
 4 Independent of reading the various items
 5 themselves, just reading them and coming to whatever
 6 conclusion you came to after reading them, have you
 7 done anything to check out what was stated in the
 8 documents and the theories raised in those documents,
 9 to determine whether they were accurate, whether they
 10 were true and whether the theories were accurate?
 11 MR. WATERS: Okay. Now, I just want to be
 12 sure I'm clear.
 13 Are you referring to articles or articles in
 14 corporate documents or articles in corporate documents
 15 in answers to interrogatories or all of those?
 16 MR. COTTEN: All of those.
 17 MR. WATERS: Okay. Anything he looked at
 18 then?
 19 MR. COTTEN: Yes.
 20 MR. WATERS: All right.
 21 A The discipline of a scientist is that you

Page 409

1 Manville did, in fact, put the warnings on the
 2 products in 1964. So that's the kind of thing that I
 3 do.
 4 As I have a more complete knowledge of what
 5 happened, I have ways of sometimes checking, verifying
 6 or confirming different things which are alleged at
 7 one place or another.
 8 Q Of the materials that you have brought to
 9 this deposition that were specific to your opinions
 10 concerning the duPont Company, did you do anything
 11 independent of reading those materials to make a
 12 determination as to the accuracy of the matters
 13 contained in those documents?
 14 A I can't think of anything. Let me just add
 15 at this point that I have been presented by lawyers
 16 from both sides of this litigation with many, many,
 17 many documents over the last 20 years, and I have
 18 never, to my knowledge, ever been presented with any
 19 document by any attorney that later proved to be a
 20 forgery or falsified or otherwise improper in its
 21 appearance versus the truth of the matter.

Page 410

1 Q I appreciate your statement, but I object to
2 the nonresponsive nature of it.
3 THE VIDEOGRAPHER: Excuse me. 4:22 p.m.
4 We're going off the record. This is the end of tape
5 number two. We're now going to tape number three.
6 (Whereupon, discussion off the record.)
7 THE VIDEOGRAPHER: January 29th, 1997.
8 We're back on the record. The time is approximately
9 4:27 p.m. This is the beginning of tape number three.
10 BY MR. COTTEN:
11 Q Dr. Castleman, are you familiar with the
12 term state of the art?
13 A Yes.
14 Q What does that term mean to you?
15 A Well, it's used in litigation. I don't know
16 any other place where it -- well, I mean, I suppose
17 it's come up in other situations, but in litigation it
18 generally refers to the history of knowledge, and the
19 foreseeability of harm at various times in various
20 situations from the standpoint of what was
21 scientifically known, and what was known to the

Page 411

1 individual defendants.
2 Q Do you understand and do you have the
3 opinion that the testimony that you're providing in
4 this case is testimony as an expert witness on the
5 state of the art?
6 A Yes.
7 Q I would like to ask you if over the course
8 of time that you've been studying the question about
9 asbestos and companies in the United States and how
10 they've dealt with asbestos, whether you've developed
11 any opinions on the broader question of companies that
12 might have a good reputation for industrial hygiene
13 practice.
14 A I don't understand your question.
15 Q Do you know -- do you have any opinion of
16 any companies in U.S. industry that have a good
17 reputation for industrial hygiene practice?
18 A I can't think of any. There may be some,
19 but I don't know who they are.
20 Q Are you -- have you ever heard that duPont
21 has a good reputation for industrial hygiene practice?

Page 412

1 A Aside from the self-serving claims of duPont
2 I can't think of anything.
3 Q Are you a member of what might be called the
4 industrial hygiene community?
5 A I'm not a member of the industrial hygiene
6 professional associations. I've been a guest speaker
7 at some of their meetings, but I have not been a
8 member of their organizations.
9 Q Do you know if any of those organizations
10 have an opinion that duPont has always had a good to
11 excellent reputation with respect to industrial
12 hygiene practice?
13 A No.
14 Q Do you agree that duPont has always been
15 regarded as a leader in the field of industrial
16 hygiene practice?
17 A All I can say in response to that is that
18 duPont had industrial hygienists -- a fair number of
19 industrial hygienists as far back as 1962 in its
20 employ based on a handbook I have or some kind of a
21 list of members of the Academy of Industrial Hygiene

Page 413

1 or whatever it was called.
2 A number of other companies had one or two
3 people. DuPont had quite a few.
4 So at least in terms of numbers of people I
5 don't think that there's any dispute that duPont has
6 had in its employ people with the expertise in
7 industrial hygiene, industrial medicine and toxicology
8 for a great many years.
9 Q Do you agree that the development of
10 knowledge regarding the relationship between asbestos
11 and disease has been a long and gradual process?
12 A Yes, in the sense that we are always, I
13 suppose, learning a little bit more, although it's
14 been known for quite a few years now that asbestos
15 could kill people.
16 Q Will you agree that the first reported cases
17 of asbestos-related disease occurred among persons
18 exposed in production processes involving direct
19 exposure to asbestos?
20 A Yes, that's right.
21 Q And those were miners and millers and

Page 414

1 workers in textile factories; is that accurate?
2 A And other asbestos manufacturing operations,
3 yes.
4 Q And at this time these reported cases did
5 not involve secondary exposures to asbestos like
6 insulators?
7 MR. WATERS: When you say at this time, are
8 you referring to a specific --
9 MR. COTTEN: The time of those reported
10 cases.
11 A Well, that's right. I mean, up until 1932 I
12 don't know of a single reported case of asbestosis
13 among a product user, and it wasn't until 1932 that
14 there started to be actual cases reported, although
15 Merewether wrote about the hazard to product users
16 even before that.
17 Q Would you agree that all of the early cases
18 of asbestosis these reports refer to involve persons
19 working in dusty trades?
20 A I don't understand your question.
21 Q What part of the question do you not

Page 415

1 understand?
2 MR. WATERS: Dusty trades. How do you
3 define that, I think, is the issue?
4 Q Do you know the definition of a dusty trade?
5 A I don't know what you mean by it.
6 Q What would you mean? And we'll go from
7 there.
8 A Well, there was a book written in 1918 by
9 Frederick Hloffman about mortality and dusty trades.
10 So there was a lot of concern about industrial
11 dust in the first several decades of this century, you
12 know, certainly going back to the beginning of the
13 century.
14 Q Let me see if I can get at it this way.
15 Up until what you referred to in 19 -- in
16 the 1930s, would you agree that all the early cases of
17 asbestosis involved persons working as in miners and
18 millers and workers in textile factories?
19 A Well, I waffle on that because they weren't
20 just textile factories, but they were other asbestos
21 manufacturing operations where asbestos was being used

Page 416

Page 417

1 as a raw material in the manufacture of various
2 products, and some of those products, in one case at
3 least, insulation products were discussed, for
4 example, in the annual report in the Chief Inspector
5 of Factories in the year 1889.

6 Q And in those cases those persons had been
7 exposed for prolonged periods at high intensities; is
8 that correct?

9 A There's varying amounts of data on just how
10 long they had been exposed, but I would say it's in
11 the initial, in the early cases, you're talking about
12 people who were exposed under circumstances where no
13 control measures were applied and where asbestos was
14 used in some manufacturing process or mining.

15 Q Thank you.

16 Would you agree that Dr. Selikoff played an
17 important role in bringing the attention of U.S.
18 industry to the risk of asbestos exposure among
19 secondary users such as insulators?

20 A Yes, he did.

21 Q And would you agree that in terms of the

1 development of knowledge within U.S. industry
2 regarding the risks of asbestos among secondary users
3 and bystanders the 1964 New York Academy of Science
4 conferences represents an important event?

5 A Yes, it does.

6 Q Would it be correct, sir, that you know of
7 duPont documents which show a continuing pattern of
8 activity and concern of the medical industrial hygiene
9 people at duPont about the problem of asbestos,
10 especially with insulators?

11 MR. WATERS: I'd just ask for clarification
12 on the time frame.

13 MR. COTTEN: The time frame of the documents
14 that I referred to.

15 MR. WATERS: Like the --

16 MR. COTTEN: The documents in '64 or '66,
17 '67, '68.

18 A Well, certainly the documents we've
19 discussed earlier today cover the period of the 1960s
20 and evidence concern about hazards of asbestos by some
21 of the people at duPont who knew about those hazards

Page 418

Page 419

1 Q And especially with reference to pipe
2 coverers?

3 A Right.

4 Q Now, you've made reference in your direct --
5 during the direct examination of you, sir, to your
6 book entitled, Asbestos: Medical and Legal Aspects.

7 A Yes.

8 Q You have a chapter in that book called
9 Company Knowledge, don't you, sir?

10 A Yes.

11 Q Isn't it correct that on that chapter, or in
12 that chapter, that you describe a history according to
13 your research of knowledge acquired by manufacturers
14 and other companies about the hazards of asbestos and
15 when they learned that knowledge?

16 A Right. These are mainly asbestos mining and
17 companies with -- that were substantial asbestos
18 manufacturing concerns for the most part.

19 Q And would you agree, sir, that that chapter
20 of 116 pages with footnotes does not mention duPont?

21 A I don't think that duPont -- well, duPont

1 doesn't have a separate section in that chapter,
2 definitely does not. I don't think it's mentioned,
3 but it might be.

4 Q I'll make a representation to you, sir, that
5 I've reviewed that chapter very, very closely and that
6 it does not mention duPont.

7 Does that surprise you?

8 A No.

9 Q There's no other specific section in your
10 book with respect to company knowledge or corporate
11 knowledge that is specific to the duPont Company is
12 there?

13 A Well, the only references to duPont, I
14 think, are indicated by the pages named in the index.

15 Q All right, sir. How long have -- you're in
16 the Fourth Edition of your book.

17 A Right.

18 Q Those references that are in the Fourth
19 Edition of that book, were they in the Third Edition?

20 A Some of them were.

21 Q Were there new references in the Fourth

Page 420

Page 421

1 Edition about duPont that weren't in the Third
2 Edition?

3 A Well, I think the enumeration of some duPont
4 products in which asbestos was used is a new
5 addition.

6 That's 90 and 91, I believe, are the pages.

7 Q When was the Third Edition published?

8 A 1990.

9 Q The materials that you've produced for this
10 deposition today that are specific to duPont,
11 excluding those that you refer to concerning
12 asbestos-containing products, are any of those
13 materials contained in your book, Asbestos: Medical
14 and Legal Aspects?

15 A I'm not sure if I understand you. I mean,
16 we certainly have reference to textbooks that were in
17 the duPont library. Many -- I think all of them --
18 are cited in the book somewhere.

19 As to corporate internal documents, that's
20 another story. For the most part they are not cited
21 in the book.

1 Q Is it your opinion that duPont was leery
2 about using asbestos before it became more or less
3 illegal to use asbestos insulation?

4 MR. WATERS: Let me just object. I think
5 the question is a little bit unclear.

6 MR. COTTEN: Okay. I'll restate it.

7 MR. WATERS: Okay.

8 Q Is it your opinion that duPont was leery
9 about using asbestos before it became more or less
10 illegal to use asbestos insulation?

11 MR. WATERS: Okay. Let me object that first
12 of all, I'm not sure what you mean by leery in this
13 context.

14 Second of all, you're talking about duPont
15 using asbestos without saying asbestos insulation, but
16 then you go on to state when it became illegal to use
17 asbestos insulation.

18 MR. COTTEN: I'll try to rephrase it.

19 Q Do you recall making the statement on
20 December 1, 1994 that "A lot of things that duPont
21 does, I'm always finding out things that duPont does

Page 422

1 that I didn't know before.
 2 "I think duPont was leery about using
 3 asbestos before it became more or less illegal to use
 4 asbestos insulation?"
 Do you recall that, sir?
 A I don't recall the sentence.
 7 MR. WATERS: Hold on a second, Barry. If
 8 you're going to -- first of all, it's not clear to me
 9 you're trying to impeach him.
 10 MR. COTTEN: I wasn't trying to. I was
 11 trying to meet your objections.
 12 MR. WATERS: I appreciate that.
 13 Having said that, if you're going to ask him
 14 about some prior testimony, I think it's appropriate
 15 for you to show it to him --
 16 MR. COTTEN: I don't mind doing that.
 17 MR. WATERS: -- so he can put it in context.
 18 Q Let me show you, sir, from prior testimony
 19 that you've given under oath so that you can refresh
 20 your memory about that.
 21 If you want, you can read it to yourself and

Page 424

1 statement?
 2 A Right. Where you've got duPont saying we'd
 3 rather get asbestos-free insulation.
 4 By 1973 most of the companies were offering
 5 asbestos-free insulation. The companies that had sold
 6 asbestos insulation, most of them, or at least many
 7 them, and some of the leaders, were offering
 8 asbestos-free products.
 9 Q And any steps that duPont was taking at that
 10 time with respect to asbestos-free insulation products
 11 would have been voluntary on their part and not
 12 compelled by government regulation?
 13 A Well, it's not quite that simple.
 14 The government regulations, the OSHA
 15 standards that existed since 1972, said that any
 16 company that had people who were asbestos exposed
 17 would have to do air monitoring of their exposure
 18 every six months, medical examination of them
 19 periodically, limiting the area that they worked in so
 20 that people who weren't supposed to be there couldn't
 21 just walk in and get exposed to the hazard.

Page 426

1 A Sure.
 2 Q And would you agree with me that in your own
 3 words that duPont was taking voluntary steps
 4 concerning discouraging the use of asbestos in the
 5 early 1970s?
 6 MR. WATERS: As a general policy statement
 7 or with respect to any specific location or facility?
 8 Q I'm talking general right now.
 9 A Well, all I know is what I've told you, that
 10 they were taking -- that I think in 1973, they were
 11 trying to get asbestos-free insulation materials, and
 12 they were -- you know, I can only conjecture as to
 13 their reasons, but I don't -- I don't think of it as a
 14 purely voluntary act in the sense of, you know,
 15 walking down the street and giving a panhandler a five
 16 dollar bill.
 17 Q Would you agree with me that on December
 18 1st, 1994 under oath that you stated I think duPont
 19 saw that coming. I think that duPont was taking
 20 voluntary steps at least, you know, before some
 21 companies in discouraging the use of asbestos?

Page 423

1 then I'll ask you about it.
 2 A Okay (indicating).
 3 Q All right, sir?
 4 A Uh-huh.
 5 Q All right. Dr. Castleman, do you know that
 6 the duPont Company began to take steps to use less
 7 asbestos insulation before it was required by
 8 governmental regulation?
 9 A Let me tell you what I know. I recall, I
 10 think it was a Keene Corporation document from, if I
 11 had to guess, 1973, in which the guys at Keene are
 12 talking about shipping some asbestos-containing
 13 insulation to duPont, but they don't want duPont to
 14 know because duPont wanted asbestos-free stuff.
 15 I have a -- that's what I might have been
 16 thinking about at the time I said that. I don't think
 17 that whoever asked me the question followed up to find
 18 out what I had in mind, but that must have been, or at
 19 least that's something I can think of that would fit
 20 with what I testified to.
 21 Q And that would be the basis for your

Page 425

1 There were a number of requirements that the
 2 OSHA standards imposed on companies that -- like
 3 duPont used a heck of a lot of asbestos insulation and
 4 may have had full-time employees doing pipe covering,
 5 for example.
 6 And in order to save the expense of having
 7 to comply with these regulations, not to mention the
 8 possibility of being -- of running afoul of the
 9 regulations and getting cited by OSHA for forgetting
 10 to tell the workers that their chest X-rays showed
 11 they had asbestosis, for example, the duPont folks may
 12 have just felt that it's smart to get out of asbestos
 13 even if it's not yet banned as an element of molded
 14 pipe covering which it subsequently was.
 15 It was proposed to be banned in 1974, and
 16 the ban took effect in 1975.
 17 Q Objection. Nonresponsive.
 18 Would you agree with me that at least in
 19 part there are lots of people at duPont that really
 20 care about their workers and health and safety, the
 21 people who work for the company?

Page 427

1 I'm talking about the 1970s.
 2 MR. WATERS: Have you already showed him
 3 that?
 4 MR. COTTEN: Yes, I did.
 5 A Well, again, I can't add much to what I've
 6 already said.
 7 I mean, it was voluntary in the sense that
 8 it wasn't compelled by law that they insulate their
 9 chemical plants without using asbestos, but it wasn't
 10 purely voluntary in that if they continued to use
 11 asbestos, they would have these additional costs and
 12 problems to deal with that came along with OSHA and
 13 EPA regulation and workers not wanting to be exposed
 14 to mortal risks.
 15 Q Dr. Castleman, I believe you have not
 16 acknowledged previously that some of the materials
 17 that you rely upon concerning your opinions on the
 18 state of the art were materials that were written in
 19 foreign languages; is that right?
 20 MR. WATERS: He's not acknowledged it
 21 before?

Page 428

1 MR. COTTEN: I thought that he has. I said
 2 -- I asked him --
 3 MR. WATERS: Oh, I'm sorry.
 4 MR. COTTEN: -- if he had acknowledged that.
 5 THE WITNESS: No, I didn't hear that
 6 question right either.
 7 Q Let me restate it then.
 8 A I have freely acknowledged that I have tried
 9 to read everything I could find about the hazards of
 10 asbestos and to obtain information, including
 11 information published originally in other languages,
 12 many other languages.
 13 Q And I think that you also said that some of
 14 those articles and reports have been abstracted into
 15 the English language; is that right?
 16 A That's also true.
 17 Q And you yourself, sir, read the German
 18 language; is that right?
 19 A I can get by on German and French.
 20 Q And that has assisted you with respect to
 21 your process of reading these materials?

Page 430

1 A Yes.
 2 Q Is this the same Dr. Hueper that in 1955
 3 took the position that cigarettes and tobacco don't
 4 cause lung cancer?
 5 A I think in 1954 he expressed skepticism
 6 about the then available scientific literature linking
 7 cigarettes and lung cancer.
 8 I don't know about anything in 1955 or
 9 later.
 10 Q Would you agree that according to your
 11 understanding that asbestosis and occupational cancer
 12 are diseases that do not appear immediately?
 13 A That's right.
 14 Q And so from the standpoint of the people
 15 working with and around Lester Adams and people like
 16 him in this lawsuit, those people would not know the
 17 potential for becoming ill from asbestos exposure at
 18 the time they were being exposed, if they were?
 19 MR. WATERS: Unless they were told by
 20 somebody?
 21 A Well, if I understand your question right,

Page 432

1 A Yes. I don't know what any of the people at
 2 the plant knew.
 3 Q Would you know -- can you identify for me,
 4 sir, which people you believe at duPont had knowledge
 5 that asbestosis -- let me rephrase -- withdraw that --
 6 had knowledge that Lester Adams was substantially
 7 certain to be seriously injured or killed because of
 8 asbestos exposure at the Kinston plant?
 9 MR. WATERS: Well, let me just object that
 10 that, I think, misstates the legal standard.
 11 Q I'm just asking if he knows of any facts.
 12 A Well, I think that the -- that the documents
 13 we've provided here today, the statements of Mr.
 14 Keuper and the documents that he authored, the
 15 testimony of Dr. Stopps, the duPont textbook with Dr.
 16 Schepers' chapter in it and Dr. Schepers' testimony
 17 indicate that there were people at duPont who had a
 18 sophisticated knowledge about the hazards of asbestos
 19 the way they had a sophisticated knowledge about the
 20 hazards of industrial materials generally.
 21 And although none of these individuals

Page 429

1 A Sure it has. Of course, if something proved
 2 to be important or something I thought was important,
 3 I would very often -- I'll try to get hold of a
 4 professional translation.
 5 Q Would you agree that in 1978 Dr. Selikoff
 6 knew the scientific state of knowledge regarding
 7 asbestos?
 8 MR. WATERS: Knew what it was in 1978?
 9 Q The scientific state of knowledge in 1978.
 10 A Well, he certainly knew the current state of
 11 knowledge in 1978 I would say about as well as anyone
 12 medically speaking.
 13 Q Would you regard him as a leader in research
 14 as to the health effects of asbestos?
 15 A Yes.
 16 Q You've referred to -- and I apologize if I
 17 mispronounce his name -- Dr. Hueper?
 18 A Yes.
 19 Q And you've relied upon some of Dr. Hueper's
 20 writings and opinions with respect to asbestos, have
 21 you not, sir?

Page 431

1 the workers had virtually no way of knowing about the
 2 hazards of these products because the products
 3 themselves gave no warning signs.
 4 They don't cause the workers to get
 5 headaches, they don't cause them to get any kind of
 6 illness that the worker might associate with this
 7 exposure, and the elapsed period from the time of
 8 exposure until the time that the worker develops the
 9 disease is measured in years, really probably decades.
 10 Q Other than the documents that you've
 11 produced here at your deposition specific to duPont,
 12 do you have any knowledge of any fact with respect to
 13 the co-workers that worked with Lester Adams at the
 14 Kinston facility in Kinston, North Carolina as to
 15 their state of knowledge concerning the dangers of
 16 asbestos during the years that Lester Adams was at
 17 that facility?
 18 A No.
 19 Q And would that also be true with respect to
 20 the supervisors that worked for the duPont Company at
 21 that facility?

Page 433

1 probably knew Mr. Adams, that doesn't gain, say, the
 2 fact that the people I mentioned and others must have
 3 been aware that people that were using asbestos
 4 insulation products on a frequent basis and exposed to
 5 the dust from them, people that were using asbestos as
 6 a raw material in their plants, were at very serious
 7 risk of developing occupational disease
 8 notwithstanding the fact that the people who had that
 9 knowledge didn't know the names of the individuals
 10 exposed.
 11 Q Of the people that you have just identified
 12 as people that you believe had that sort of knowledge
 13 and had that quality of knowledge, in what years would
 14 they have had -- first had that knowledge?
 15 And please state which individual and what
 16 year.
 17 A Well, I think it's reflected in the
 18 documents. I think Mr. Keuper's knowledge goes back
 19 to 1963, maybe 1960. I'm not sure.
 20 Q And I'll let you go on and discuss each
 21 other one, but with respect to Mr. Keuper, then your

Page 434

1 opinion that you stated on direct examination
 2 concerning duPont's knowledge that exposure to
 3 asbestos by Lester Adams would be substantially
 4 certain to lead to serious injury or death would not
 have been true for Mr. Keuper until 1960?
 A Right. I mean, as far as I know he didn't
 7 know about asbestos hazards, or at least he didn't
 8 know much about it, before then.
 Q Would it be correct that as far as you know
 10 and based upon your opinion, that there would be no
 11 other person in the duPont Company that had the
 12 knowledge concerning the substantial certainty that
 13 Lester Adams would be seriously injured or killed by
 14 his exposure to asbestos before 1960?
 MR. WATERS: Let me just object because I
 16 think the question is a little bit misleading.
 The testimony has been in a general sense
 18 that the knowledge was there with respect to the kind
 19 of damage that exposures could cause.
 Obviously, none of these gentlemen knew Mr.
 20 Adams, and I'm concerned that your question, the way
 21

Page 436

1 a regular basis occupationally, I think that's true,
 2 but I would have to review the documents to be more
 3 clear on, you know, exactly when I would ascribe that
 4 kind of knowledge to Mr. Keuper.
 I don't think there's much question that Dr.
 6 Schepers had that knowledge from the day he was hired
 7 at duPont that asbestos could cause cancer or that
 8 asbestos insulation products could cause asbestosis
 9 and cancer.
 Q As long as the employee was exposed on a
 11 regular basis?
 A Yes.
 Q How regular of a basis?
 MR. WATERS: Let's be clear on this.
 15 Are you questioning him about Dr. Schepers'
 16 opinions?
 MR. COTTEN: I'm asking him about his
 17 opinion that he just stated, Dr. Castleman's opinion.
 MR. WATERS: Well, he made a comment about
 19 Dr. Schepers' knowledge in 1958.
 20 If your question to him is the follow-up and
 21

Page 438

1 exposure or exposed regularly?
 A It's a little bit hard to try and pick
 3 numbers and draw lines above which hazard exists and
 4 below which it doesn't, and I don't like playing games
 5 like that.
 I'm not accusing you of anything. Really
 7 I'm not. But it's a difficult situation to start
 8 trying to get quantitative about things like this.
 It had been shown in the literature that
 10 people who were regularly exposed to these things,
 11 such as those people who were described in the
 12 asbestos product use chapter of my book and the tables
 13 of it, were at risk of disease.
 The literature was abundant to that effect
 15 since 1932. By the -- you know, by the 1950s it was
 16 very abundant.
 There were publications from many countries
 18 showing that insulators and the other asbestos product
 19 users, people exposed around insulation in the allied
 construction trades, were getting asbestosis and in
 21 some cases cancers that were also being ascribed to

Page 435

1 you've carefully phrased it, suggests that that may be
 2 the case.
 I mean, our position is that the corporate
 4 officers knew about the hazards and knew that it was
 5 substantially certain that people were going to get
 6 injuries, and I think that's what I need to prove.
 I don't need to prove specific knowledge
 8 that Mr. Adams was exposed and ergo he in particular
 9 was going to get sick, and I'm concerned that the way
 10 you phrased the question posits it in that light.
 Q Let me put it a little differently.
 With respect to Mr. Keuper, are you saying
 13 that Mr. Keuper was substantially certain as of 1960
 14 that any person exposed to asbestos at any duPont
 15 facility was substantially certain to be seriously
 16 injured or killed by that exposure?
 A If the person --
 MR. WATERS: Let me just object that it
 19 misstates the legal standard.
 Go ahead.
 A If the person was exposed to the asbestos on
 21

Page 437

1 you're continuing to discuss Dr. Schepers, I think
 2 it's important to clarify that point.
 I mean, we've already had --
 MR. COTTEN: Let's stay on Dr. Keuper -- I
 5 mean on --
 MR. WATERS: Can I finish my objection?
 MR. COTTEN: Yes.
 MR. WATERS: We've already had testimony
 9 that, for example, in 1960 modern occupational
 10 medicine discussed the fact that one-month exposure
 11 could cause disease. That's from Dr. Schepers.
 MR. COTTEN: But we're talk -- we may be
 13 talking degrees here, Mr. Waters.
 I'm asking about serious injury or death,
 15 and I'm talking about substantial certainty.
 None of those three things are identified by
 17 Schepers in 1960.
 MR. WATERS: Well, I guess it depends on
 19 your interpretation of what serious injury is.
 MR. COTTEN: Yes.
 Q Could you tell me what you mean by regular
 21

Page 439

1 their asbestos exposure.
 And when you asked me to quantify how much
 3 exposure constitutes regular exposure, I guess I have
 4 to fall back on saying well, it really is defined more
 5 by their job category than by, you know, somebody
 6 standing around with the stopwatch measuring how many
 7 hours a day they worked around the stuff.
 But you're talking about people who worked
 9 around asbestos insulation products frequently on at
 10 least sometime -- you know, almost -- at least almost
 11 every day probably they spent at least sometime around
 12 these products.
 Sometimes it was all day, sometimes it was
 14 just a little bit of a day. But it gets a little bit
 15 difficult for me to start quantifying these things
 16 beyond -- beyond that point.
 The literature reflects the trades of the
 18 people that were involved. Dr. Schepers in his
 19 writings and in his testimony, you know, clarifies
 what he knew as much as I can.
 Q With respect to the knowledge in 1960 --
 21

Page 440

Page 441

1 MR. MILTENBERGER: I'm going to object as
2 nonresponsive.
3 MR. COTTEN: Yes. I'll join into the
4 nonresponsive portion too.
5 Q With respect to the knowledge that you've
6 described to Ken Keuper admittedly based upon your
7 review of the documents that you have produced here
8 today --
9 MR. WATERS: And his deposition.
10 MR. COTTEN: Which is part of what he
11 produced here today.
12 Q -- do you -- do you know what type of
13 regular exposure Ken Keuper would have thought
14 necessary before someone would be substantially
15 certain to suffer serious injury or death from
16 asbestos exposure?
17 A I think we ought to put that off till
18 tomorrow.
19 I'd have to look through the documents to
20 try and try and offer you, you know --
21 Q I want to ask you about two follow-up

1 questions, and then I'll be happy to continue
2 tomorrow.
3 They'll be fairly short. I want to know
4 what you meant by regular exposure.
5 MR. WATERS: Again, in his response --
6 A I've already told you. If you look at
7 Chapter 5, you look at the trades of the people that
8 are affected with -- insulator, your boiler riveter,
9 welder, shipyard worker, contractor's helper, plumber,
10 plant worker wearing asbestos gloves and apron,
11 asbestos handlers in chemical plants -- we're getting
12 up to the 1950s -- pipe fitter, bricklayer -- you
13 know, you wind up with all the construction trades in
14 the end -- hod carrier.
15 Q Do all of the people in the construction
16 trades that have an exposure to asbestos doing the
17 types of jobs that you've just described, do those
18 people suffer a substantial certainty to develop
19 serious injury or death as a result of working in
20 those trades?
21 A I think we're finding that they do. I think

Page 442

Page 443

1 we're finding substantial percentages of the people in
2 those trades are affected with asbestosis.
3 The studies, you know where -- the mortality
4 studies haven't been done on most of these trades, but
5 the morbidity studies showing the prevalence of
6 asbestosis among people who have been in those trades
7 for a long time, especially, you know, during the '60s
8 and '70s when a lot of asbestos materials were used,
9 have developed asbestosis.
10 Q Do you know whether Lester Adams developed
11 asbestosis?
12 A I don't know whether Mr. Adams has had it
13 confirmed that he had asbestosis or not.
14 MR. COTTEN: Let's resume tomorrow.
15 MR. WATERS: Okay.
16 THE VIDEOGRAPHER: This portion of the
17 deposition is concluded, January 29th, 1997 at
18 approximately 5:04 p.m.
19 (Thereupon, at 5:04 p.m., the videotaped
20 deposition was adjourned.)
21

1 State of Maryland
2 City of Baltimore
3 I, Sharon D. Livingston, a Notary Public of
4 the State of Maryland, City of Baltimore, do hereby
5 certify that the within-named witness personally
6 appeared before me at the time and place herein set
7 out, and after having been first duly sworn by me,
8 according to law, was examined by counsel.
9 I further certify that the examination was
10 recorded stenographically by me and this transcript is
11 a true record of the proceedings.
12 I further certify that I am not of counsel
13 to any of the parties, nor an employee of counsel, nor
14 related to any of the parties, nor in any way
15 interested in the outcome of the action.
16 As witness my hand and seal this 11th day of
17 February, 1997.
18
19 Sharon D. Livingston
20 My Commission Expires 10-28-98
21

Page 444

Page 445

INDEX		
Deposition of Dr. Barry Ira Castleman		
January 29, 1997		
EXAMINATION BY:		PAGE
Mr. Waters		202
Mr. Cotten	351,	379
Mr. Bevel		376
Castleman EXHIBITS	DESCRIPTION	PAGE
3	3-page Outline	204
4	Advertisement	211
5	Letter dated 2-24-72 from L.B. Wilson, Jr. to James F. Morgan; Summary of Particle and Fiber Counts	211
6	Letter dated 4-10-72 from J.F. Morgan to J.A. Zapp and C.F. Reinhardt	211
7	Letter dated 4-4-73 from Thomas J. Nelson to E.E. Swain, Jr.	211
8	Handwritten note from J.F. Morgan	211
9	Letter dated 4-10-73 from E.E. Swain, Jr. to J.A. Zapp	211
10	Letter dated 6-10-72 from	

INDEX (CONTINUED)		
Deposition of Dr. Barry Ira Castleman		
January 29, 1997		
Castleman EXHIBITS	DESCRIPTION	PAGE
11	Letter dated 6-16-72 from Richard J. Hubiak to J.B. Armitage	211
12	Letter dated 4-10-72 from J.F. Morgan to J.A. Zapp and C.F. Reinhardt	211
13	Letter dated 9-19-72 from E.E. Swain, Jr. to C.F. Reinhardt	211
14	Answers to Interrogatories	211
15	Letter dated 6-9-72 from E.E. Swain, Jr. to Dr. J.A. Zapp	211
16	Letter dated 5-19-66 from A.C. Stevenson to Dr. John A. Zapp	211
17	Letter dated 1-2-69 from A.B. Naselow to J.A. Zapp, Jr.	211
18	2 sheets of legal documents from MacMurray case	211
19	3-page Outline	211
20	DuPont 1. Affidavit of Service; Subpoena; Cross-Notice in Adams case	351

Page 440

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19 I'd have to look through the documents to
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Page 442

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Page 444

INDEX		
Deposition of Dr. Barry Ira Castleman January 29, 1997		
EXAMINATION BY		PAGE
Mr. Waters		202
Mr. Cotten	151,	379
Mr. Bevel		376
Castleman EXHIBITS	DESCRIPTION	PAGE
3	3-page Outline	204
4	Advertisement	211
5	Letter dated 2-24-72 from L.B. Wilson, Jr. to James F. Morgan, Summary of Particle and Fiber Counts	211
6	Letter dated 4-10-72 from J.F. Morgan to J.A. Zapp and C.F. Reinhardt	211
7	Letter dated 4-4-73 from Thomas I. Nelson to E.E. Swain, Jr.	211
8	Handwritten note from J.F. Morgan	211
9	Letter dated 4-10-73 from E.E. Swain, Jr. to J.A. Zapp	211
10	Letter dated 6-10-72 from	

Page 441

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2 tomorrow.
3 They'll be fairly short. I want to know
4 what you meant by regular exposure.
5 MR. WATERS: Again, in his response --
6 A I've already told you. If you look at
7 Chapter 5, you look at the trades of the people that
8 are affected with -- insulator, your boiler riveter,
9 welder, shipyard worker, contractor's helper, plumber,
10 plant worker wearing asbestos gloves and apron,
11 asbestos handlers in chemical plants -- we're getting
12 up to the 1950s -- pipe fitter, bricklayer -- you
13 know, you wind up with all the construction trades in
14 the end -- hod carrier.
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17 types of jobs that you've just described, do those
18 people suffer a substantial certainty to develop
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21 A I think we're finding that they do. I think

Page 443

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2 City of Baltimore
3 I, Sharon D. Livingston, a Notary Public of
4 the State of Maryland, City of Baltimore, do hereby
5 certify that the within-named witness personally
6 appeared before me at the time and place herein set
7 out, and after having been first duly sworn by me,
8 according to law, was examined by counsel.
9 I further certify that the examination was
10 recorded stenographically by me and this transcript is
11 a true record of the proceedings.
12 I further certify that I am not of counsel
13 to any of the parties, nor an employee of counsel, nor
14 related to any of the parties, nor in any way
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Page 445

INDEX (CONTINUED)		
Deposition of Dr. Barry Ira Castleman January 29, 1997		
Castleman EXHIBITS	DESCRIPTION	PAGE
11	Letter dated 6-16-72 from Richard L. Hubiak to J.B. Armbrage	211
12	Letter dated 4-10-72 from J.F. Morgan to J.A. Zapp and C.F. Reinhardt	211
13	Letter dated 9-19-72 from E.E. Swain, Jr. to C.F. Reinhardt	211
14	Answers to Interrogatories	211
15	Letter dated 6-9-72 from E.E. Swain, Jr. to Dr. J.A. Zapp	211
16	Letter dated 5-19-66 from A.C. Stevenson to Dr. John A. Zapp	211
17	Letter dated 1-2-69 from A.B. Naselow to J.A. Zapp, Jr.	211
18	2 sheets of legal documents from MacMonray case	211
19	3-page Outline	211
20	DuPont I, Affidavit of Service, Subpoena, Cross-Notice in Adams case	151

\$80 [1] 203:3	14 [5] 217:4 235:19	308:6 308:11 309:5	349:19 425:16	3 [15] 204:16 204:18
'50s [3] 232:10 244:7	235:20 277:5 445:10	309:8 309:16 311:4	1976 [8] 213:17 214:2	206:6 206:13 207:9
296:16	15 [5] 218:6 218:13	314:8 334:14 430:2	336:7 341:18 342:21	227:10 227:12 228:4
'55 [1] 310:7	379:10 397:11 445:11	430:8	346:21 404:20 406:5	228:13 228:15 350:19
'60s [4] 232:10 288:20	15-page [1] 242:21	1956 [1] 258:13	1977 [3] 342:19 344:3	350:21 351:2 351:5
296:16 442:7	15th [1] 342:21	1958 [12] 254:18	345:19	444:11
'64 [1] 417:16	16 [4] 215:9 219:5	255:17 311:16 311:20	1978 [5] 346:4 429:5	3-page [2] 444:11
'66 [2] 283:21 417:16	220:2 445:13	312:10 313:2 313:7	429:8 429:9 429:11	445:18
'67 [1] 417:17	1600 [1] 200:18	313:10 313:15 314:7	1980 [4] 227:17 287:13	3.2 [1] 214:1
'68 [1] 417:17	16th [2] 200:6 326:17	314:8 436:20	347:11 404:6	30 [6] 219:1 298:15
'70s [4] 288:21 296:16	17 [2] 220:14 445:15	1959 [3] 203:6 259:7	1982 [2] 347:11 349:18	299:4 319:8 383:16
403:21 442:8	1717 [1] 200:10	260:7	1983 [1] 285:13	383:18
'71 [2] 405:1 406:1	18 [4] 221:16 222:5	1960 [18] 230:1	1984 [1] 282:15	301 [1] 200:15
'80s [2] 288:21 296:17	390:7 445:17	255:18 258:14 263:11	1990 [1] 420:8	31 [5] 250:3 250:6
00 [15] 352:9 352:10	1889 [1] 416:5	264:12 265:12 265:16	1994 [2] 421:20 426:18	282:15 342:19 383:20
352:15 353:7 353:9	19 [10] 211:5 219:18	265:21 290:20 313:16	1996 [8] 359:11 361:8	32 [5] 300:4 316:14
353:13 353:14 353:19	225:7 273:12 283:20	314:8 433:19 434:5	361:21 389:4 397:3	326:8 326:9 384:1
354:6 354:6 354:14	300:11 330:5 348:7	434:14 435:13 437:9	397:5 397:10 398:1	329 [1] 342:2
354:14 354:15 354:15	415:15 445:18	437:17 439:21	1997 [11] 199:14	33 [2] 267:6 384:6
355:4	1906 [1] 240:15	1960s [4] 217:16	201:4 300:7 397:5	332 [1] 342:2
03 [4] 235:14 235:18	1907 [4] 229:6 229:15	233:6 267:14 417:19	397:10 398:1 410:7	333 [1] 342:2
350:19 350:21	359:8 383:6	1962 [1] 412:19	442:17 443:17 444:3	338 [1] 283:3
04 [2] 442:18 442:19	19102-1870 [1] 200:7	1963 [6] 273:13 315:6	445:3	34 [2] 384:13 392:13
0974298 [1] 251:3	1915 [3] 229:21 230:4	315:8 316:6 316:10	19th [2] 216:16 340:10	35 [2] 297:16 385:11
0974569 [1] 243:19	230:11	433:19	1st [1] 426:18	351 [2] 444:7 445:20
0975054 [1] 240:6	1918 [1] 415:8	1964 [15] 267:11	2 [8] 220:14 326:4	36 [3] 252:17 385:19
0975371 [1] 259:14	1919 [1] 230:18	268:3 268:13 268:21	326:6 326:8 326:9	395:6
0975743 [1] 245:17	1921 [1] 253:3	270:6 270:20 290:3	335:11 360:13 445:17	367 [1] 342:2
1 [15] 300:5 300:7	192nd [1] 199:7	290:21 334:11 400:10	2-24-72 [1] 444:13	37 [2] 386:14 387:1
336:7 351:4 351:18	1930 [2] 302:3 303:12	400:11 403:4 408:10	2.33 [1] 335:8	376 [1] 444:8
352:2 352:2 352:6	1930s [8] 207:21	409:2 417:3	20 [6] 199:15 201:4	379 [1] 444:7
355:12 355:12 355:16	208:3 230:13 232:5	1965 [4] 271:11 271:13	326:4 326:6 397:11	38 [2] 386:16 396:15
358:14 358:14 421:20	232:14 241:18 255:4	272:11 273:1	409:17	39 [1] 387:11
445:19	1932 [3] 414:11 414:13	1966 [18] 219:18	20-fold [1] 343:17	397 [2] 320:8 321:1
1-2-69 [1] 445:15	438:15	273:2 273:2 275:6	200,000 [1] 271:8	4 [13] 211:5 211:7
1.6 [1] 214:1	1934 [3] 239:4 317:14	277:3 277:5 277:12	202 [1] 444:6	211:12 211:15 212:2
10 [13] 199:15 201:4	359:8	278:18 278:20 280:4	204 [1] 444:11	212:5 227:9 259:21
212:21 214:13 215:1	1935 [3] 241:10 260:6	280:21 283:5 283:8	211 [15] 444:12 444:14	362:2 363:12 410:3
216:9 352:15 354:15	356:19	283:12 318:3 318:6	444:16 444:17 444:18	410:9 444:12
355:4 373:14 388:5	1936 [3] 241:19 241:21	318:8 356:20	444:20 445:6 445:8	4-10-72 [2] 444:15
390:11 444:21	304:20	1967 [6] 320:1 320:20	445:9 445:10 445:12	445:7
10-2-72 [1] 328:11	1937 [2] 304:2 304:3	322:8	445:14 445:16 445:17	4-10-73 [1] 444:19
10-28-98 [1] 443:20	1938 [3] 242:15 242:20	1968 [1] 284:2	445:18	4-4-73 [1] 444:17
100 [4] 221:2 310:3	253:3	1969 [2] 220:15 225:4	21202 [1] 199:16	40 [2] 269:14 387:13
365:13 389:11	1939 [2] 304:10 307:4	1970 [6] 284:11 284:20	21234 [1] 199:20	400 [1] 200:3
100,000 [3] 225:1	1940 [4] 304:6 304:7	334:16 382:10 405:1	22 [3] 366:4 373:17	41 [3] 250:7 250:8
225:2 343:16	304:11 304:11	406:1	410:3	388:2
105 [1] 332:17	1940s [3] 232:9	1970s [5] 227:17	24 [1] 301:2	410 [1] 199:20
10th [1] 213:12	244:7 255:4	289:11 403:17 426:5	2422 [1] 199:19	43 [1] 388:14
11 [11] 215:9 235:14	1941 [1] 304:9	427:1	25 [4] 310:4 346:4	44 [2] 335:11 389:1
235:18 235:19 235:20	1942 [2] 245:5 246:4	1971 [2] 218:17 225:7	374:10 398:18	4400 [2] 200:10 200:18
250:3 250:6 250:7	1944 [5] 246:17 247:1	1972 [19] 212:21	256-8410 [1] 199:21	45 [1] 389:2
250:8 390:2 445:5	247:9 304:6 304:7	213:12 215:9 216:9	25th [1] 356:17	47 [2] 300:5 300:7
1142018 [1] 251:15	1947 [1] 304:12	216:16 218:5 218:14	26 [4] 303:4 351:2	5 [10] 212:9 340:9
116 [1] 418:20	1949 [3] 248:21 250:19	323:8 324:15 326:17	351:5 382:21	340:9 340:10 354:6
11th [1] 443:16	255:5	327:10 328:1 328:3	27 [4] 321:20 337:8	364:2 441:7 442:18
12 [3] 297:16 300:4	1950s [3] 288:20	329:14 330:5 330:10	374:19 410:9	442:19 444:13
445:7	438:15 441:12	333:11 337:8 424:15	2700 [1] 200:14	5-19-66 [1] 445:13
124 [2] 342:4 342:11	1953 [1] 307:21	332:20 333:11 423:11	28 [2] 374:21 390:12	50 [2] 279:13 372:18
125,000 [2] 218:17	1954 [1] 430:5	424:4 426:10	28th [1] 338:14	51 [6] 359:11 389:5
225:6	1955 [14] 251:10	1974 [2] 334:2 425:15	29 [6] 199:14 344:1	389:8 389:16 389:17
13 [4] 211:7 211:15	254:4 254:8 258:7	1975 [12] 335:15	382:1 391:8 444:3	394:5
216:16 445:9		335:21 337:2 338:14	445:3	550 [2] 199:15 201:6
132 [1] 260:10		340:10 340:10 340:10	29th [5] 201:4 300:7	56-year-old [1] 273:12
		340:15 348:7 348:19	352:9 410:7 442:17	

6 [4] 212:21 216:9 322:18 444:15	244:10 244:20 298:20 302:7 302:8 302:10 302:14 302:20 303:9 303:15 303:19 304:7 304:8 304:12 304:13 307:9	434:21 435:8 442:10 442:12 445:20	ago [2] 233:15 365:17 agree [16] 295:21 296:6 296:12 412:14 413:9 413:16 414:17 415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	200:2 201:13
6-10-72 [1] 444:21	abundant [2] 438:14 438:16	Adams' [1] 368:15	295:21 412:14 296:12 413:16 414:17 415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	Andrews [1] 200:18
6-16-72 [1] 445:5	Academy [2] 412:21 417:3	add [5] 221:20 331:8 353:17 409:14 427:5	296:12 413:16 414:17 415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	Andy [1] 352:21
-9-72 [1] 445:11	acceptable [2] 347:1 347:1	added [1] 252:20	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	Angles [1] 405:14
J [1] 322:20	accepted [2] 263:1 283:16	addition [7] 247:15 248:19 274:3 289:21 356:16 385:1 420:5	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	animal [2] 232:15 255:10
60th [1] 199:2	access [2] 231:11 394:15	additional [10] 218:1 253:5 253:10 273:13 290:19 313:13 316:21 321:8 394:12 427:11	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	annual [5] 231:5 231:9 241:16 271:4 416:4
63 [1] 283:20	accompanied [1] 362:1	address [2] 300:1 348:11	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	annually [1] 221:2
66 [1] 203:1	accord [1] 333:19	addressed [3] 208:1 319:18 337:17	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	answer [32] 208:13 222:10 222:11 229:9 232:20 233:9 237:7 237:17 252:8 253:18 262:3 272:18 278:6 278:14 283:9 286:10 292:19 294:14 294:21 295:16 301:17 306:1 308:15 310:13 310:18 312:13 350:5 353:12 361:15 371:13 373:3 397:4
6th [8] 299:15 330:16 359:11 361:8 361:12 361:21 389:4 397:3	accordance [1] 201:11	adequate [1] 260:16	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	answers [10] 206:20 222:11 223:2 283:15 308:2 311:8 347:11 347:18 407:15 445:10
7 [3] 213:13 382:21 444:17	according [11] 217:21 229:21 249:13 309:1 356:6 357:12 359:10 383:6 418:12 430:10 443:8	adjacent [3] 273:16 284:4 284:9	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	Anthony [1] 242:8
710 [1] 303:21	account [1] 228:20	adjoined [1] 442:20	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	anticipate [2] 293:1 295:3
734 [1] 247:5	accumulated [5] 204:2 260:14 341:15 375:11 408:2	Administration [2] 324:19 344:9	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	anticipated [1] 349:5
75201 [2] 200:11	accumulations [1] 280:2	admissions [4] 271:12 271:19 272:10 272:17	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	anticipating [1] 297:3
75208 [1] 200:3	accuracy [2] 406:16 409:12	admittedly [1] 440:6	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	anxious [1] 378:7
76102-4127 [1] 200:15	accurate [7] 327:13 361:10 406:10 406:17 407:9 407:10 414:1	adoption [1] 280:19	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	apologize [1] 429:16
8 [6] 275:7 277:12 329:14 354:6 354:14 444:18	accusing [1] 438:6	advance [1] 299:4	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	appear [7] 223:2 352:4 352:8 353:8 353:13 408:8 430:12
8.55 [1] 329:16	acknowledged [6] 207:6 256:7 427:16 427:20 428:4 428:8	advertisement [2] 305:15 444:12	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	appearance [1] 409:21
80 [1] 252:18	acknowledges [1] 214:19	advertisers [1] 305:18	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	APPEARANCES [1] 200:1
800 [1] 199:21	acknowledging [1] 323:14	advertising [1] 371:17	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	appeared [7] 249:19 249:20 304:7 304:12 309:8 318:8 443:6
82 [1] 256:5	acknowledgment [1] 312:4	advice [1] 345:4	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	appearing [1] 311:1
88 [1] 309:21	acquired [1] 418:13	advise [5] 270:19 285:8 292:8 323:21 345:1	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	application [1] 279:2
882-0208 [1] 199:20	act [1] 426:14	advising [1] 363:9	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	applications [1] 385:14
9 [13] 214:13 218:4 218:13 352:9 352:10 53:7 353:9 353:13 353:14 353:19 354:14 354:15 444:19	action [2] 345:14 443:15	affected [3] 317:20 441:8 442:2	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	applied [1] 416:13
9-19-72 [1] 445:9	actions [4] 268:4 287:13 288:7 288:10	affidavit [3] 351:20 352:3 445:19	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	applies [1] 279:19
90 [1] 420:6	active [1] 382:8	afoul [1] 425:8	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	apply [4] 298:9 374:9 374:10 383:21
900 [1] 246:5	activities [1] 382:19	afraid [3] 321:17 342:4 391:15	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	applying [1] 348:18
91 [1] 420:6	activity [5] 207:19 207:20 207:21 343:5 417:8	Africa [2] 255:3 258:19	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	appointed [1] 229:20
94 [1] 290:3	actual [1] 414:14	afternoon [1] 300:5	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	appointment [1] 230:3
94.2 [1] 269:18	acutely [1] 326:20	again [21] 214:7 264:12 294:4 302:21 309:3 312:6 312:12 314:6 314:15 321:12 337:17 339:18 345:19 347:16 350:2 377:16 377:17 378:18 396:2 427:5 441:5	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	appreciate [7] 345:4 354:12 355:5 367:7 390:20 410:1 422:12
95-08910 [1] 199:8	ad [1] 305:19	against [3] 203:5 247:10 343:12	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	apprehensions [1] 333:3
A.B [1] 445:16	Adams [21] 199:2 289:3 292:11 293:1 295:4 296:4 297:3 362:6 362:8 430:15 431:13 431:16 432:6 433:1 434:3 434:13	agencies [1] 382:9	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	approached [1] 403:19
A.C [1] 445:14	action [2] 345:14 443:15	agency [3] 324:20 382:3 391:10	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	appropriate [4] 230:7 260:8 300:1 422:14
a.m [16] 199:15 201:5 235:15 235:18 235:19 235:20 250:3 250:6 250:7 250:8 352:9 353:7 353:9 353:13 353:14 353:19	above-captioned [1] 199:13	agent [1] 250:20	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	approximate [4] 345:1 345:3 370:3 389:7
able [5] 238:3 238:7 312:18 359:17 363:4	absent [1] 349:13	agents [2] 246:4 246:7	415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	April [8] 212:21
above [1] 438:3	absolutely [1] 267:7 330:4 405:19		415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	
above-captioned [1] 199:13	abstract [3] 249:17 302:15 307:10		415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	
abstracted [4] 248:20 302:19 307:8 428:14	abstracts [17] 244:7		415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	
abstracts [17] 244:7			415:16 416:16 416:21 418:19 425:18 426:2 426:17 429:5 430:10	

213:12 214:13 216:9	240:11 240:20 242:1	417:9 417:20 418:6	assisted [1]	428:20	autopsies [1]	310:3
247:8 338:14 344:1	242:5 242:21 243:9	418:14 418:16 418:17	associate [2]	250:17	available [13]	206:7
346:21	243:15 244:6 244:12	420:4 420:13 421:2	431:6		238:2 249:1 274:8	
apron [1]	246:9 246:11 246:18	421:3 421:9 421:10	associated [7]	213:18	299:1 299:9 327:21	
Arch [1]	247:12 248:1 248:4	421:15 421:15 421:17	216:21 231:8 231:20		340:18 341:10 377:18	
archives [2]	248:20 250:19 252:1	422:3 422:4 423:7	279:2 286:21 309:6		378:15 401:21 430:6	
360:8	252:13 254:1 255:8	424:6 424:16 425:3				
arca [5]	257:2 257:4 258:5	425:12 426:4 426:21	associating [2]	252:1	average [1]	214:4
284:9 317:9 424:19	258:10 258:13 259:17	427:9 427:11 428:10	252:5		avoid [1]	243:9
areas [1]	260:9 260:10 262:19	429:7 429:14 429:20	association [7]	248:18	Awaiting [1]	318:7
arguing [1]	262:20 263:1 263:4	430:17 431:16 432:8	249:9 249:16 253:21		aware [12]	258:9
Arizona [1]	263:8 264:3 265:11	432:18 433:3 433:5	313:12 408:18 408:20		265:15 271:13 272:11	
Armitage [1]	265:16 266:4 266:9	434:3 434:7 434:14			276:14 290:2 290:10	
arrangements [1]	267:3 267:16 268:7	435:14 435:21 436:7	associations [1]		326:20 337:3 353:21	
355:1	268:16 268:20 269:3	436:8 438:12 438:18	412:6		401:1 433:3	
arrival [1]	270:17 270:21 271:4	439:1 439:9 440:16	assume [11]	288:13	away [5]	279:5 285:3
arriving [1]	271:14 272:12 272:13	441:10 441:11 441:16	288:16 289:1 289:3		285:14 377:6 400:17	
art [3]	272:21 274:6 274:11	442:8	289:6 289:8 289:12		B [1]	212:11
427:18	275:2 275:9 276:4	asbestos-containing	289:14 289:19 290:14		B-152923 [1]	199:4
article [29]	276:16 276:17 277:17	[7]	371:1		B-u-b-i-a-k [1]	215:2
241:7 241:10 247:7	278:9 278:21 279:3	211:18 339:13			Bachelor's [1]	400:3
247:9 247:20 248:9	279:19 283:2 283:7	382:7 391:14	assumes [5]	209:13	background [1]	255:15
249:5 259:5 302:15	284:9 284:12 284:18	420:12 423:12	226:17 227:3 245:7		bags [1]	340:11
304:9 304:21 306:6	285:4 285:16 286:7		292:12		Baldwin [11]	377:2
307:7 307:9 310:20	286:16 287:1 287:15	asbestos-free [6]	assuming [4]	208:12	377:9 378:2 378:2	
318:5 318:10 318:11	287:17 288:6 288:18	423:14 424:3 424:5	208:21 332:17 405:10		378:15 379:12 379:19	
318:19 318:21 319:4	289:5 289:10 289:17	424:8 424:10 426:11	assumption [1]	378:14	380:4 381:12 381:15	
319:13 319:15 328:16	290:10 290:19 292:11	asbestos-related [3]	assumptions [3]		391:1	
328:16 359:15 386:11	292:12 293:14 297:5	292:6 319:8 413:17	291:5 291:20 294:4		Baltimore [8]	199:16
395:1	298:4 300:16 301:8	Asbestos/Lung [1]	attached [8]	219:11	199:20 201:6 336:5	
articles [32]	301:12 302:16 302:16	219:8	241:6 318:18 319:3		352:8 356:7 443:2	
245:2 246:17 298:18	303:3 303:14 303:21	asbestosis [62]	342:21 355:14 357:6		443:4	
302:11 302:19 303:14	304:4 307:11 307:21	239:3 240:13 240:16	attaching [1]	342:17	ban [2]	343:11 425:16
303:20 303:21 359:4	309:6 309:6 309:20	241:8 243:2 243:5	attachment [1]	342:11	band [1]	277:21
359:14 360:1 372:3	310:10 311:1 311:5	243:7 244:13 244:15	attend [3]	214:9	Bank [3]	202:15 202:19
384:14 385:19 386:17	311:14 313:11 315:2	246:14 247:10 248:5	313:16 404:7		301:12	
388:7 389:5 389:8	317:3 318:7 319:2	248:9 249:6 252:6	attendance [1]	314:16	banned [2]	425:13
389:13 389:14 392:14	319:5 319:5 320:11	252:18 253:1 253:5	attended [3]	267:15	425:15	
393:8 394:2 394:5	320:13 320:21 322:17	253:20 254:3 254:7	attention [8]	219:15	bans [1]	213:10
394:21 395:7 407:2	323:1 323:4 323:15	254:14 255:9 260:2	241:1 253:19 292:9		Barry [8]	199:11
407:13 407:13 407:14	324:1 324:5 324:7	262:20 269:18 269:21	325:2 325:6 405:2		199:12 201:3 201:18	
428:14	326:18 326:20 329:1	286:6 286:20 303:3	416:17		356:9 422:7 444:2	
asbestos [356]	329:3 329:16 330:18	303:6 303:19 304:10	attorney [9]	200:2	445:2	
202:21 203:1 203:4	330:19 330:20 331:7	305:9 306:6 306:10	282:12 370:10 370:13		Barton [2]	200:21
203:5 204:4 204:9	333:3 334:9 334:16	306:12 307:2 307:8	380:12 380:18 381:6		201:9	
205:2 205:4 207:11	335:19 337:12 338:2	307:15 307:18 310:1	406:3 409:19		base [1]	294:12
207:14 207:16 207:18	338:7 338:19 338:19	310:4 310:21 316:12	attorneys [5]	257:13	based [18]	276:13
208:5 208:7 208:9	339:3 339:5 339:20	316:17 317:3 317:16	258:1 369:12 371:18		291:4 291:11 294:4	
208:17 209:10 209:18	340:12 340:19 341:5	414:12 414:18 415:17	397:7		294:6 299:8 313:7	
212:6 212:13 212:15	341:11 342:18 343:5	425:11 430:11 432:5	audiotapes [1]	365:7	322:19 327:9 341:8	
212:16 213:3 213:4	343:11 344:13 344:18	436:8 438:20 442:2	August [2]	248:21	347:20 348:1 348:3	
213:10 213:17 213:18	345:2 346:10 346:12	442:6 442:9 442:11	326:17		349:16 402:7 412:20	
214:7 214:9 214:11	346:19 347:3 347:8	442:13	authenticity [1]	222:18	434:10 440:6	
214:14 214:18 214:20	347:13 348:3 348:6	ascertain [2]	author [4]	284:3	bases [1]	236:6
215:6 215:13 215:15	349:17 350:11 369:5	367:2	327:1 338:13 346:5		basic [1]	388:10
215:20 216:11 216:11	373:11 375:3 375:18	ascribe [1]	author's [1]	230:1	basis [12]	221:10
216:19 216:21 217:7	375:21 377:14 382:3	ascribed [1]	authored [9]	215:12	248:13 271:4 296:20	
217:10 217:12 217:16	382:3 382:9 382:17	aside [2]	239:2 250:15 255:17		297:3 312:11 319:11	
217:18 218:2 218:4	382:18 382:20 385:14	asks [10]	335:18 345:6 385:20		423:21 433:4 436:1	
218:17 218:21 219:12	385:15 390:15 391:10	275:17 275:18 276:5	395:8 432:14		436:11 436:13	
220:4 220:7 220:17	391:10 395:17 396:4	276:11 313:12 315:10	authoritative [1]	374:5	Bates [13]	210:11
220:21 221:2 221:8	396:5 397:13 398:9	325:7 364:2	authorities [2]	263:2	210:13 216:8 239:19	
221:18 221:19 222:3	398:12 398:13 399:6	aspect [1]	307:15		240:3 243:18 243:19	
223:9 223:16 224:2	399:11 399:12 399:14	aspects [9]	authority [1]	304:4	245:14 251:1 251:13	
224:7 224:10 224:15	399:16 402:3 402:5	285:4 285:15 314:18	author [5]	255:18	251:15 259:14 334:15	
224:19 225:3 225:6	402:21 403:1 403:7	315:13 369:4 401:2	261:11 261:13 262:6		bear [2]	323:6 331:17
225:17 225:19 225:20	404:5 404:14 404:15	418:6 420:14	303:10		became [6]	255:6
226:4 226:8 226:12	404:19 405:3 405:18	assess [3]			302:2 421:2 421:9	
226:19 227:5 227:16	406:3 406:8 408:4	203:10 203:15				
228:1 229:2 231:12	411:9 411:10 413:10	assessing [1]				
	413:14 413:19 414:2	assist [2]				
	414:5 415:20 415:21	238:12				
	416:13 416:18 417:2					

421:16 422:3	256:3 256:8 259:5	building [1]	202:21	career [1]	232:12	causes [6]	229:3
become [5]	215:20	bulletin [1]	220:20	careful [1]	274:5	251:6 252:11 284:18	
232:7 253:14 400:19	303:18 303:21 304:13	bunch [1]	380:15	carefully [2]	203:4	284:18 401:6	
403:20	307:13 311:11 356:10	burdensome [1]	382:14	435:1		causing [4]	246:8
becoming [4]	356:11 369:4 372:8	Burger [1]	308:21	Carolina [9]	271:16	248:5 250:20 305:11	
69:12 310:2 430:17	373:14 384:20 385:3	business [1]	257:21	272:14 273:1 277:10		CAWTHRON [2]	
began [3]	385:5 385:8 386:1	bystanders [1]	417:3	277:16 316:19 317:2		200:13 206:2	
406:8 423:6	386:10 386:11 388:5	C [7]	200:2 200:9	317:13 431:14		cement [5]	209:19
begin [2]	389:15 389:15 395:9	201:1 219:6 267:11		carrier [1]	441:14	221:5 222:2 227:6	
351:20	396:19 415:8 418:6	267:12 346:6		cartons [1]	408:16	349:1	
beginning [3]	418:8 419:10 419:16	C.F. [3]	444:16 445:8	cartridge [2]	221:12	cementitious-type [1]	
410:9 415:12	419:19 420:13 420:18	445:9		279:12		349:2	
begins [3]	420:21 438:12	calculations [1]		cartridges [1]	279:13	cements [1]	212:6
307:20 326:19	books [6]	365:4		case [77]	199:4 199:8	Center [3]	200:6
behalf [9]	372:3 384:13 386:16	calls [14]	237:9	199:14 202:20 203:8		200:14 338:16	
200:7 200:11 200:16	388:6 392:13	242:16 244:9 245:9		206:16 206:21 209:5		century [3]	227:16
200:19 202:14 202:18	bothered [1]	246:1 248:2 249:12		217:6 221:17 223:1		415:11 415:13	
286:5 308:20	bottom [1]	272:16 275:3 276:20		229:7 239:12 240:15		ceramic [2]	302:13
behest [1]	BOWLES [1]	287:21 310:21 317:8		246:19 252:15 256:11		302:14	
belief [1]	box [1]	358:15		259:21 261:8 265:5		Ceramics [13]	298:19
believes [1]	boxes [2]	Canada [5]	252:4	271:12 272:10 273:10		302:3 302:4 302:5	
below [2]	378:4	308:7 309:14 309:15		274:4 282:1 282:10		302:6 302:8 302:19	
438:4	brake [2]	333:2		288:16 290:16 292:2		303:9 303:15 303:19	
best [2]	226:3	Canadian [5]	330:13	292:3 292:11 292:13		304:8 304:13 307:8	
beta [1]	break [2]	331:5 331:12 331:17		293:6 309:16 317:13		certain [23]	207:6
Bethlehem [4]	297:13	331:21		317:14 318:5 323:16		238:13 238:13 257:8	
321:14 323:14 323:21	breakfast [3]	cancel [1]	339:21	347:19 351:12 351:21		277:6 288:13 291:9	
better [4]	354:7 354:8	cancer [67]	219:9	358:17 359:17 360:16		294:10 295:9 296:3	
347:6 389:12 394:19	breathe [1]	232:8 232:9 240:20		361:1 362:5 363:21		301:4 325:1 338:3	
between [16]	Brian [2]	240:20 243:4 243:6		364:9 364:14 364:18		342:16 342:17 376:9	
252:12 253:3 253:9	201:9	244:6 244:14 246:4		364:21 365:5 365:8		389:11 432:7 434:4	
254:1 254:3 254:7	brick [2]	246:11 248:9 248:20		368:16 369:19 371:4		435:5 435:13 435:15	
265:16 268:20 270:12	323:15 323:16	249:6 250:20 251:7		384:18 387:4 387:7		440:15	
83:20 310:1 323:16	bricklayer [1]	252:2 252:5 252:11		387:21 388:17 388:20		certainly [8]	205:9
338:21 396:19 413:10	bricks [1]	252:13 252:18 252:21		391:1 392:3 392:5		230:7 265:17 403:13	
Bevel [9]	Bridgeport [1]	253:5 253:20 254:1		392:17 406:5 406:7		415:12 417:18 420:16	
354:1 354:10 354:13	brief [4]	254:4 254:7 254:14		411:4 414:12 416:2		429:10	
354:18 376:2 376:6	326:6 350:21	255:10 257:9 258:10		435:2 445:17 445:20		certainty [9]	291:7
379:15 444:8	briefly [6]	258:10 258:16 259:18		cases [29]	244:14	294:9 296:2 296:10	
beyond [4]	211:20 231:1 262:9	260:1 262:21 264:4		252:5 252:18 252:21		296:14 296:14 434:12	
280:10 439:16 439:16	306:4 307:6	265:11 265:16 267:3		253:5 253:12 255:12		437:15 441:18	
big [1]	bring [13]	268:20 270:4 284:18		263:8 282:2 310:4		certificates [2]	253:2
bill [1]	356:4 356:5 357:11	284:19 286:6 286:21		310:4 310:21 361:14		384:7	
426:16	358:15 360:4 366:8	307:17 309:5 309:20		369:21 370:5 370:15		certification [1]	
binders [1]	366:11 366:19 367:8	310:1 310:4 319:5		370:16 370:20 371:6		374:3	
binding [1]	367:16 371:11 378:4	319:5 319:9 400:21		390:7 413:16 414:4		certify [3]	443:5
220:6	bringing [2]	401:4 401:5 401:5		414:10 414:14 414:17		443:9 443:12	
bit [11]	416:17	401:6 401:7 401:8		415:16 416:6 416:11		cetera [2]	401:7
250:11 256:19	Britain [5]	401:19 430:4 430:7		438:21		401:7	
267:9 330:15 334:13	252:4 258:18 303:4	430:11 436:7 436:9		castables [1]	330:18	chance [1]	360:8
413:13 421:5 434:16	307:16	cancers [5]	246:8	Castleman [28]	199:11	changes [1]	208:1
438:2 439:14 439:14	British [5]	246:14 253:13 401:14		199:13 201:3 201:18		242:21	
block [3]	219:9 219:10 253:3	438:21		202:3 203:14 203:20		chapter [17]	242:21
222:2 227:6	253:15	cannot [3]	260:15	204:17 206:13 211:4		255:17 258:16 262:15	
blocks [2]	broaden [3]	319:15 324:6		236:3 236:10 236:15		373:14 386:10 388:5	
226:3	402:7 411:11	capable [2]	246:8	237:8 237:9 351:3		390:11 418:8 418:11	
board [3]	brochures [1]	248:5		351:9 358:4 376:7		418:12 418:19 419:1	
231:15 354:5	371:17	car [1]	218:19	379:19 393:10 410:11		419:5 432:16 438:12	
boards [1]	brought [19]	carcinogen [2]	258:14	423:5 427:15 444:2		441:7	
390:1	223:1 230:11 233:19	343:10		444:10 445:2 445:4		characterization [2]	
boiled [1]	234:9 356:6 356:8	carcinogenic [2]		Castleman's [2]		233:20 376:16	
boiler [1]	356:10 356:11 356:13	343:5 343:12		299:3 436:18		characterize [1]	346:15
Boilermaker [4]	356:16 357:1 357:3	carcinogens [3]	232:13	casts [1]	368:18	charge [2]	221:6
304:16 304:18 305:14	359:6 360:7 360:17	259:3 259:12		category [2]	367:1	221:7	
306:6	372:7 393:1 409:8	cardiorespiratory [1]		439:5		Charles [1]	282:1
oilers [1]	Brucellosis [1]	313:14		causal [2]	253:9	Chase [4]	202:14
book [48]	215:4	care [3]	218:11 218:20	caused [4]	286:7	202:19 202:20 301:11	
204:12 239:8 240:6	Bubiak [2]	425:20		314:18 314:19 319:5		cheap [1]	330:19
242:11 246:3 247:6	215:2						
250:14 250:19 255:18	Buffalo [1]						

check [4] 365:18 406:13 406:14 407:7	client [1] 289:9	company's [1] 347:18	400:21 406:3 409:10	considerably [1] 336:12
checking [1] 409:5	client's [1] 288:17	compare [1] 332:10	420:11 426:4 427:17	consideration [1] 290:1
chemical [1] 208:9 221:7 231:21 231:21 318:6 318:9 318:18 319:3 400:4 427:9 441:11	clients [1] 371:19	comparison [1] 214:2	431:15 434:2 434:12	considering [1] 334:5
chemicals [1] 230:9	close [2] 249:20 389:19	compel [1] 236:12	concerns [3] 264:13 266:13 418:18	consistent [6] 265:18 265:20 327:15 327:20 328:2 332:13
chest [3] 308:5 309:11 425:10	closed [1] 240:6	compelled [2] 424:12 427:8	conclude [2] 243:13 249:3	constitute [4] 227:13 380:18 383:3 383:4
Chestnut [2] 212:12 212:14	closely [1] 419:5	compendium [2] 386:1 395:9	concluded [2] 394:9 442:17	constitutes [1] 439:3
chief [2] 232:7 416:4	closure [1] 255:16	compensable [5] 254:14 258:17 307:3 316:13 317:4	conclusion [4] 238:3 248:14 320:10 407:6	construction [9] 242:6 242:6 269:16 270:16 280:5 280:20 438:20 441:13 441:15
Chromepak [4] 338:8 339:2 339:18 339:20	co-authored [1] 385:21	compensation [9] 208:2 255:13 307:4 315:10 315:16 315:20 316:16 316:21 317:17	conclusions [4] 254:2 254:6 258:8 268:4	consult [1] 404:3
chron [1] 206:8	co-workers [1] 431:13	compiled [1] 253:11	conclusory [1] 254:10	consultant [3] 384:4 404:1 404:2
chronological [3] 204:21 205:1 359:7	cohorts [1] 295:4	complaints [1] 325:10	conditions [6] 253:9 260:3 269:17 305:11 368:20 384:3	consultants [1] 368:16
chronologically [2] 206:9 301:19	coming [3] 258:2 407:5 426:19	complete [4] 343:11 359:18 408:2 409:4	conduct [1] 217:3	consultation [1] 369:9
Churg [1] 318:20	commanded [2] 352:7 355:13	completed [3] 237:16 300:21 301:11	conducted [7] 210:3 255:8 255:11 268:18 320:3 322:12 328:21	consulted [3] 384:16 386:19 392:16
cigarettes [2] 430:3 430:7	commence [2] 353:21 355:4	completely [3] 268:10 341:6 356:15	conducting [1] 273:5	consulting [3] 202:18 363:21 404:4
Circuit [1] 352:8	commencing [2] 199:14 201:4	completing [1] 311:11	conference [17] 214:9 214:11 267:16 268:13 268:21 270:3 270:5 284:12 284:16 308:5 308:20 309:5 309:11 309:13 310:7 404:6 404:7	consumer [2] 219:3 349:5
circumstance [1] 379:7	comment [1] 436:19	completion [1] 300:20	confered [1] 384:7	consumers [2] 215:7 216:12
circumstances [1] 416:12	commentary [1] 213:9	compliance [1] 366:9	conferences [6] 312:5 312:21 313:17 314:2 314:9 417:4	contact [3] 215:7 263:17 406:2
citations [1] 284:12	comments [2] 221:14 284:7	complication [4] 243:4 243:7 244:14 307:17	confidential [1] 408:21	contacted [1] 354:20
cite [1] 252:3	Commerce [1] 200:15	comply [2] 391:15 425:7	confident [1] 408:21	contacting [1] 391:1
cited [7] 253:19 298:21 303:20 344:12 420:18 420:20 425:9	Commission [1] 443:20	component [1] 222:4	confidential [3] 273:6 274:1 274:17	contain [7] 218:21 287:5 291:20 292:1 364:8 373:17 388:15
cites [1] 236:17	Committee [1] 304:21	compound [4] 215:6 217:12 218:21 225:4	confidentiality [1] 391:18	contained [1] 206:6 206:11 209:4 217:1 224:2 224:7 224:9 280:10 293:8 307:13 327:19 409:13 420:13
cities [1] 213:11	communication [10] 212:9 213:15 214:5 215:1 215:10 216:10 216:17 220:14 321:13 342:12	compounds [3] 221:4 224:19 225:8	confine [1] 254:11	containers [2] 209:17 212:4
citing [1] 328:15	communications [1] 274:19	comprehensive [3] 246:6 368:12 408:2	confirm [1] 226:2	containing [15] 212:16 217:16 223:17 224:14 224:19 225:17 225:20 226:4 226:8 226:12 226:20 227:6 279:18 334:10 385:12
City [5] 200:14 318:21 352:8 443:2 443:4	community [1] 412:4	concern [11] 214:19 232:1 267:2 270:14 324:12 375:2 375:20 390:14 415:10 417:8 417:20	confirmed [4] 252:14 286:15 408:17 442:13	contains [1] 242:21
Civil [1] 201:11	companies [17] 199:8 208:7 244:11 288:11 308:9 332:10 341:9 411:9 411:11 411:16 413:2 418:14 418:17 424:4 424:5 425:2 426:21	compounds [3] 221:4 224:19 225:8	confirming [2] 408:5 409:6	contaminant [2] 214:20 269:7
claims [4] 289:18 292:5 292:9 412:1	company [51] 199:4 200:8 200:12 203:6 203:16 204:5 207:16 207:18 207:18 208:9 212:11 218:2 230:7 230:8 230:11 232:2 232:3 233:7 242:9 259:10 266:8 267:14 270:11 270:19 274:14 277:10 292:20 300:17 305:16 305:17 320:3 323:15 328:10 329:13 341:10 341:14 347:18 348:17 350:8 351:10 361:20 363:15 409:10 418:9 419:10 419:11 423:6 424:16 425:21 431:20 434:11	concerning [70] 202:10 204:8 205:3 207:15 209:10 219:11 227:15 229:14 240:10 241:4 242:1 247:21 249:5 254:3 254:7 258:9 259:17 260:8 264:3 265:4 265:10 266:3 267:1 268:15 269:2 270:8 273:2 273:21 276:11 277:11 278:20 280:19 284:15 286:5 286:15 287:13 289:10 293:13 294:2 294:19 295:19 296:10 296:15 296:21 301:6 301:21 303:14 307:7 307:10 319:4 328:17 332:2 342:18 343:3 344:18 346:16 348:2 359:3 361:19 380:5 388:3	confered [1] 384:7	contemplated [1] 349:12
clarification [2] 376:3 417:11			confidential [3] 273:6 274:1 274:17	contents [1] 206:10
clarifies [1] 439:19			confidentiality [1] 391:18	context [15] 207:14 224:21 240:10 247:20 256:11 265:3 270:14 288:4 296:16 300:19 311:10 314:7 357:21 421:13 422:17
clarify [5] 208:17 357:2 378:12 394:19 437:2			confine [1] 254:11	continuation [3] 201:2 349:16 355:6
Clark [2] 282:2 304:2			confirm [1] 226:2	continue [3] 339:19 341:10 441:1
classified [1] 221:11			confirmed [4] 252:14 286:15 408:17 442:13	continued [3] 341:4 427:10 445:1
clay [2] 329:1 380:14			confirming [2] 408:5 409:6	
clean [3] 237:17 260:14 280:2			confused [2] 334:13 406:19	
cleaner [1] 279:21			confusion [1] 321:18	
cleaning [1] 280:1			congratulate [1] 365:20	
clear [14] 207:1 214:11 228:4 239:10 261:8 310:19 329:20 330:4 334:19 393:7 407:12 422:8 436:3 436:14			Connecticut [1] 217:20	
clearer [1] 310:2			connecting [1] 260:1	
clearly [2] 209:16 212:3			connection [7] 262:21 268:19 310:1 338:21 369:19 374:12 382:19	
			Consequently [1] 221:10	
			consider [6] 288:17 323:18 338:6 343:7 347:5 347:6	
			considerable [2] 322:13 331:9	

continues [1] 334:15	costs [1] 427:11	countries [3] 244:19	279:18	defendant [9] 200:7
continuing [8] 290:21	Cotten [182] 200:13	258:18 438:17	CV [7] 356:13 368:11	200:11 200:16 200:19
314:17 323:8 332:20	200:14 205:6 205:11	country [6] 208:3	368:12 372:7 384:11	301:12 375:3 375:21
340:3 340:18 417:7	205:20 208:11 208:20	250:17 255:4 293:17	386:5 386:7	380:13 390:15
437:1	209:12 210:1 210:8	307:16 408:4	CV's [1] 368:8	defendants [13] 199:4
contractor's [1] 441:9	210:12 210:16 211:8	counts [2] 214:1	D [6] 199:17 201:1	199:8 359:17 375:7
contributed [1] 258:15	211:11 212:17 212:20	444:14	327:3 338:15 443:3	377:14 378:1 379:4
contributors [1]	218:6 219:17 222:5	COUNTY [1] 199:1	443:19	382:4 382:5 391:1
262:6	222:7 222:14 222:16	couple [3] 217:4	D'Alanzo [5] 274:4	391:11 391:12 411:1
control [10] 218:16	223:12 223:19 224:4	297:20 400:16	274:19 275:7 275:15	defense [6] 370:10
247:8 277:21 279:2	224:12 225:5 225:14	course [12] 297:6	277:4	376:9 376:21 378:14
283:1 305:1 306:14	226:1 226:15 227:1	297:21 345:14 360:9	D'Alanzo's [3] 277:12	378:16 378:18
405:6 405:11 416:13	227:10 228:3 228:11	361:21 390:3 398:21	278:10 278:12	defensive [2] 347:2
controlled [3] 203:4	229:9 229:17 230:17	399:2 402:12 403:14	D'Alonzo [2] 261:13	347:5
243:16 260:15	231:4 232:19 233:8	411:7 429:1	273:4	defer [3] 367:18 371:13
convention [3] 386:3	233:13 233:16 233:19	courses [17] 398:8	Dallas [4] 199:5	373:2
395:10 395:15	234:2 234:13 234:15	398:12 398:14 398:15	200:3 200:11 200:19	define [1] 415:3
conventions [1] 396:6	234:20 235:6 236:1	399:4 399:8 399:10	damage [1] 434:19	defined [1] 439:4
convinced [1] 254:13	237:4 237:12 237:19	399:13 399:16 401:13	dampened [2] 247:11	definite [3] 253:8
cooling [4] 218:20	239:18 239:20 240:2	401:18 401:21 402:6	247:13	345:10 345:17
224:18 225:3 225:7	242:4 242:16 244:8	402:15 402:18 402:20	dangerous [4] 243:16	definitely [1] 419:2
coordinator [1] 218:16	245:3 245:7 246:1	403:5	349:4 349:4 349:12	definition [1] 415:4
copied [2] 205:18	247:18 248:2 249:10	court [9] 199:1 199:5	dangers [3] 402:2	definitions [1] 381:6
234:19	252:7 253:17 255:20	217:5 235:11 352:8	402:5 431:15	degree [6] 203:10
copies [17] 207:2	257:15 261:20 263:19	355:1 355:14 356:7	Daniel [1] 217:6	398:11 399:10 400:3
365:13 365:14 366:10	264:5 264:21 265:13	391:16	data [4] 290:3 364:20	400:5 403:11
366:18 369:18 372:15	266:5 266:15 266:19	courts [2] 255:13	374:7 416:9	degrees [3] 262:7
374:21 376:11 377:7	271:17 272:4 272:15	293:16	date [21] 209:20 219:17	384:7 437:13
378:15 382:1 385:4	273:14 275:3 276:18	cover [9] 205:18	260:5 281:19 282:13	Delaware [3] 217:6
385:7 385:19 390:12	281:7 281:11 281:14	240:5 243:17 251:16	285:8 299:16 316:3	220:19 282:2
391:8	281:17 281:19 282:3	259:15 328:9 328:9	316:8 326:16 328:7	delay [1] 282:21
copy [22] 205:7	282:6 285:7 285:17	397:1 417:19	335:17 337:13 338:12	delete [1] 287:16
205:8 205:10 205:11	285:19 286:8 286:17	covered [10] 238:1	340:7 345:1 345:3	demands [1] 365:21
206:1 216:4 216:13	287:19 288:9 291:14	238:9 386:14 387:9	346:3 353:2 353:14	demonstrate [1] 209:9
19:11 239:10 245:13	293:4 293:21 294:15	387:11 389:1 389:17	372:11	density [1] 279:13
250:21 251:11 259:11	294:18 295:5 295:12	392:18 394:12 396:21	dated [23] 212:8	department [9] 213:14
261:9 312:16 319:18	296:5 296:7 296:18	coverer [1] 274:11	215:9 220:14 282:5	214:15 218:18 225:18
325:21 365:10 366:11	297:7 317:6 318:2	coverers [1] 418:2	326:17 329:14 330:16	225:21 248:12 248:16
368:2 376:21 390:2	351:8 351:9 352:11	covering [2] 425:4	338:14 342:19 346:4	249:8 283:11
copying [1] 335:2	352:13 352:16 352:20	425:14	356:19 356:20 444:13	depo [2] 354:13 355:8
corner [1] 327:5	353:3 353:6 353:11	covers [1] 357:8	444:15 444:17 444:19	deposed [1] 361:13
corporate [15] 202:10	353:20 355:5 357:5	craftsmen [1] 279:17	444:21 445:5 445:7	deposition [99] 199:11
203:10 203:16 204:8	357:7 357:17 358:2	create [1] 257:4	445:9 445:11 445:13	199:12 201:3 201:10
208:16 230:5 288:5	358:8 359:9 359:15	cross [1] 357:19	445:15	201:12 202:5 204:17
293:12 293:12 315:1	360:11 367:7 367:15	cross-examination [1] 359:18	dates [1] 239:15	211:4 230:21 233:5
407:14 407:14 419:10	367:20 368:10 370:5	cross-examine [1] 234:21	days [3] 298:15 299:4	233:10 233:10 233:11
420:19 435:3	374:15 374:17 375:19	Cross-Notice [1] 445:20	402:13	234:1 234:4 234:5
corporation [6] 200:19	376:4 379:16 379:18	cross-noticed [1] 353:6	De [2] 199:3 200:16	234:6 234:7 234:12
258:1 290:18 320:6	381:1 383:15 387:6	Crucible [1] 346:13	deal [2] 255:7 427:12	236:21 238:9 238:12
321:14 423:10	387:10 389:7 389:18	cubic [1] 343:16	dealing [3] 382:8	238:17 241:7 248:10
corporations [4]	391:20 392:7 392:10	current [8] 204:14	394:4 405:8	248:16 256:13 257:11
202:9 202:14 230:6	393:13 395:3 395:5	247:5 315:10 315:19	dealt [2] 319:1 411:10	262:1 264:15 265:6
293:9	395:13 395:18 395:20	337:11 382:4 391:11	death [12] 240:18	278:19 280:3 280:18
correct [13] 211:10	407:16 407:19 410:10	429:10	253:2 290:11 291:9	281:1 281:10 281:19
277:2 321:6 332:18	414:9 417:13 417:16	curriculum [1] 368:5	294:10 295:10 296:2	281:21 282:1 282:4
336:20 354:19 369:5	421:6 421:18 422:10	curves [3] 374:11	296:15 434:4 437:14	282:8 284:13 284:15
388:20 398:19 416:8	422:16 427:4 428:1	374:14 374:15	440:15 441:19	285:1 285:9 285:13
417:6 418:11 434:9	428:4 436:17 437:4	customary [1] 238:16	deaths [2] 273:7	287:8 287:9 288:8
correspondence [20]	437:7 437:12 437:20	customers [3] 213:5	274:2	298:1 298:13 351:3
323:17 325:4 338:5	440:3 440:10 442:14	213:7 347:7	decades [2] 415:11	351:11 352:4 352:9
338:17 368:14 369:12	444:7	customers' [1] 219:15	431:9	352:19 353:7 354:3
369:16 375:1 375:6	Cotten's [1] 354:21	cutting [2] 212:15	December [5] 304:20	355:3 355:7 355:12
375:10 375:17 376:8	Council [7] 230:19	cutting [2] 212:15	321:20 342:21 421:20	355:15 356:6 356:13
376:19 380:7 382:2	231:5 231:13 241:4	cutting [2] 212:15	426:17	356:16 357:1 357:3
82:19 390:13 391:9	241:17 247:21 356:20	cutting [2] 212:15	deciding [1] 405:7	357:19 359:10 359:16
392:1 392:12	counsel [9] 211:2	cutting [2] 212:15	decisions [1] 257:21	360:10 361:2 362:19
corresponds [1] 313:10	212:19 222:6 236:20	cutting [2] 212:15		365:10 366:10 366:18
cost [2] 203:2 367:3	353:18 375:18 443:8			
	443:12 443:13			
	count [2] 329:16			
	359:10			

370:4	370:9	370:12	212:13	216:7	216:8	254:14	258:17	263:7	321:6	322:1	323:8	369:18	371:18	372:1	
371:7	371:12	374:18	246:7	307:14	307:15	263:8	268:8	269:11	325:20	326:12	327:9	373:4	373:17	374:2	
379:3	389:3	390:3	315:15	357:20	394:21	275:9	287:15	290:5	334:8	335:14	341:8	375:5	376:14	376:19	
390:8	393:2	393:10	395:1	405:17	409:6	290:11	293:3	304:1	341:18	342:1	342:7	377:7	377:11	377:18	
394:6	394:9	396:17	differentiate [1]			307:3	309:12	316:13	342:11	347:20	348:13	378:4	378:9	379:4	
409:9	420:10	431:11	270:12	differently [1]			317:3	317:4	348:20	350:5	360:3	379:6	379:12	379:21	
440:9	442:17	442:20	difficult [3]			391:11	399:13	401:20	389:12	392:1	doctorate [3]			380:3	
444:2	445:2	depositions [5]			435:11	413:11	413:17	431:9	400:6	403:12	399:9	381:11	381:12	381:16	
236:18	365:13	367:9	438:7	439:15	difficult [3]			438:13	doctors [1]			381:18	383:11	384:20	
378:3	derived [1]			331:9	difficulty [1]			245:6	document [78]			386:6	387:13	387:16	
describe [3]	262:10	Digest [3]			244:6	245:13	246:15	250:16	212:2	212:9	212:19	388:6	388:14	389:2	
346:13	418:12	248:21			249:19	255:3	269:8	269:17	213:13	214:5	214:7	391:19	392:7	392:21	
described [6]	212:6	diplomas [1]			384:6	288:12	292:6	297:4	213:13	214:5	215:12	393:20	394:12	406:9	
288:7	295:11	438:11	direct [6]			304:1	304:5	306:9	214:13	215:9	215:12	407:8	407:8	407:14	
440:6	441:17	355:19			413:18	308:5	308:8	313:14	215:17	216:2	216:9	407:14	408:18	408:19	
describes [1]	240:16	418:5			434:1	314:18	315:14	316:16	219:4	222:6	225:11	409:13	409:17	417:7	
describing [5]	212:12	directed [2]			213:15	316:21	317:15	318:1	227:13	241:5	242:15	417:13	417:16	417:18	
212:14	221:18	221:18	263:16	displayed [2]			209:17	430:12	245:21	259:4	261:7	420:19	431:10	432:12	
315:16	directly [1]			391:4	212:4			209:17	275:10	275:13	275:14	432:14	433:18	436:2	
description [4]	220:10	director [11]			229:21	dispose [1]			277:18	280:11	280:12	440:7	440:19	445:17	
373:18	444:10	445:4	230:4	230:6	254:19	dispute [2]			286:4	287:3	298:5	doesn't [9]			
descriptions [1]	387:20	255:6			273:4	413:5	380:7		299:11	300:10	300:13	331:1	337:3	360:3	
designated [5]	370:16	311:19			315:1	distinction [3]			300:20	300:21	308:16	374:8	374:10	419:1	
370:19	371:4	380:18	343:1	directors [1]			370:8	378:21			379:2	433:1	438:4	Doll [1]	
400:20	disability [1]			240:18	disadvantage [1]			358:7	322:15	322:19	323:12	dollar [1]			426:16
desire [1]	324:13	361:15			disagree [2]			386:2	323:21	324:14	324:17	Don [1]			338:5
despite [1]	280:6	359:20			296:1	District [4]			325:3	325:19	326:15	done [13]			202:13
detail [5]	204:13	discipline [1]			407:21	199:3	199:5	199:7	326:16	328:4	329:7	203:21	266:10	266:13	280:21
215:18	243:1	251:21	disclosed [3]			221:3	226:11	259:8	329:9	331:1	331:4	338:7	341:21	368:21	
322:13	deterioration [1]			298:18	396:17	280:5	280:20	330:13	334:2	334:15	335:17	373:9	378:5		387:20
320:8	disclosing [1]			380:12	disclosure [1]			331:5	331:13	331:21	337:8	407:7	442:4	doubt [2]	
determination [1]	409:12	discontinued [1]			345:2	division [10]			409:19	423:10	339:10	339:15	343:3		403:6
determine [4]	238:8	discouraging [2]			426:4	221:3	226:11	259:8	documentation [17]			345:21	346:3	346:5	
358:11	406:15	407:9	426:4			223:8	223:15	223:21	206:14			228:17	228:20	320:14	377:3
develop [3]	290:5	discovered [1]			253:1	224:6	227:8	227:13	269:9			276:21	308:18	370:1	
297:4	441:18	discovery [6]			203:8	228:15	229:1	230:3	313:8			321:9	325:11	393:19	393:20
developed [5]	260:2	discuss [5]			236:4	230:18	231:16	232:18	327:10			327:16	327:21	393:20	
269:21	411:10	442:9	236:7	236:8	311:13	232:21	233:4	238:2	330:12			331:11	332:14	289:15	292:5
442:10	discuss [5]			370:9	376:20	238:11	238:20	240:19	337:4			349:20	Dr [148]		
developing [7]	269:8	discussing [26]			214:12	241:5	241:15	243:17	documented [2]			270:5	201:3	202:3	203:14
293:3	384:17	386:20	243:8	264:1	433:20	244:4	245:19	246:16	364:10			203:20	206:13	213:1	
392:17	396:16	433:7	437:1	discussed [26]			249:4	250:11	250:21	202:8			203:20		206:13
development [14]	205:1			214:16	217:11	230:20	241:2	246:12	206:10			208:16	209:1	218:14	229:5
205:1	214:16	217:11	228:10	261:15	263:12	251:17	252:10	254:17	209:4			209:8	210:3	220:16	
228:1	229:12	229:13	248:10	261:15	263:12	255:2	259:2	259:16	210:4			210:9	210:11	221:14	229:5
229:14	229:15	230:12	263:15	263:20	277:2	260:4	260:21	261:4	210:21			211:2	211:15	221:14	
257:2	298:3	300:15	284:3	305:8	308:8	262:3	262:9	264:14	211:21			217:5	217:21	221:14	229:5
413:9	417:1	discuss [5]			236:4	265:3	265:18	267:10	221:17			222:17	222:19	221:14	
developments [1]	227:15	243:8			264:1	267:13	272:9	272:18	222:21			223:2	223:8	223:14	229:5
227:15	discusses [1]			215:14	273:15			275:6	277:10	223:16			224:13	224:17	
develops [1]	431:8	243:8			264:1	278:18	280:17	282:18	225:16			226:2	226:6	226:6	229:5
devices [1]	277:21	437:10			285:12			285:21	286:10	226:10			226:18	227:4	
devise [1]	373:11	discusses [1]			215:14	286:13	287:3	287:7	229:3			229:4	236:4	236:4	229:5
devote [1]	405:7	discussing [5]			214:7	287:18	288:3	288:13	236:4			301:5	312:2	312:2	
diagnosed [1]	303:5	237:15			241:8	289:21	290:8	290:14	312:5			314:9	319:21	319:21	229:5
diagnosis [1]	368:20	264:10			244:13	291:6	291:13	291:15	332:18			335:14	340:17	340:17	
diagnostic [1]	368:18	discuss [1]			217:14	291:17	292:19	293:5	347:21			351:20	355:13	355:13	229:5
lied [3]	269:16	273:12	discussion [11]			295:1	295:6	295:8	355:13			355:21	356:4	356:4	
273:12	discussions [1]			307:14	295:21			296:13	297:9	356:21			357:21	358:15	229:5
difference [1]	405:12	disease [3]			229:3	300:10	301:4	301:18	358:18			359:1	359:11	359:11	
different [13]	212:2	240:17			243:2	302:18	304:15	305:20	360:13			360:20	361:4	361:4	229:5
					248:7	306:3	306:15	306:18	361:6			361:8	361:9	361:9	
						307:5	308:19	309:4	361:19			362:2	362:10	362:10	229:5
						307:5	308:19	309:4	362:15			363:13	363:19	363:19	
						311:10	312:9	313:7	364:7			364:12	364:19	364:19	229:5
						313:19	316:4	317:11	365:3			368:5	369:7	369:7	

274:19	275:7	275:14	271:9	271:12	271:13	E.E [4]	444:17	444:20	374:6	403:20	436:10	essential [3]	240:8
277:1	277:4	277:10	272:10	272:11	272:19	445:9	445:12		443:13			240:9	244:21
277:12	277:14	280:3	272:19	273:5	273:7	E.I [2]	199:3	200:16	employees [8]	213:7		essentially [1]	228:19
284:12	284:15	285:1	274:12	274:20	275:8	earliest [3]		229:6	270:9	273:11	290:16	Esso [3]	259:7 259:9
285:2	287:9	287:13	276:14	277:11	280:5	259:21	289:11		290:17	318:12	325:10	259:10	
88:6	288:7	290:3	280:20	282:7	286:1	early [12]		227:16	425:4			established [2]	268:21
91:2	291:3	299:2	286:5	286:14	287:3	229:2	230:5	232:10	employers [2]	317:19		294:5	
303:2	303:18	304:3	287:5	288:20	289:9	250:15	274:18	302:18	317:21			establishing [1]	343:4
304:6	307:7	309:17	289:16	290:2	290:10	305:2	414:17	415:16	employment [1]			establishment [1]	
309:19	310:6	310:20	290:16	291:7	292:10	416:11	426:5		297:6			260:13	
312:15	318:20	318:20	292:20	294:8	295:6	easier [1]		394:7	enactment [1]	317:14		et [6]	199:2 199:4
319:1	338:15	351:9	295:9	296:1	297:2	easily [1]		360:2	enclosed [1]	305:12		199:6	199:8 401:7
358:4	376:7	379:19	297:9	351:4	351:10	East [1]	379:20		encloses [1]	328:20		401:7	
410:11	416:16	423:5	351:18	352:2	352:6	Eckardt [2]		259:7	enclosure [1]	260:11		evaluate [1]	293:12
427:15	429:5	429:17	355:12	355:15	356:1	259:19			encourage [1]	368:1		Evans [2]	199:19
429:19	430:2	432:15	358:14	361:20	363:8	edification [1]	274:13		encouragement [1]			201:9	
432:15	432:16	436:5	363:15	409:10	411:20	edition [13]	204:14		402:11			event [2]	301:20
436:15	436:18	436:20	412:1	412:10	412:14	247:5	250:14	250:18	encyclopedia [1]			417:4	
437:1	437:4	437:11	412:18	413:3	413:5	299:3	356:11	372:8	242:19			events [1]	313:6
439:18	444:2	445:2	417:7	417:9	417:21	419:16	419:19	419:19	end [8]	218:3	285:4	eventuality [1]	347:3
445:12	445:14		418:20	418:21	418:21	420:1	420:3	420:10	297:17	310:8	367:11	everybody [1]	235:9
drafts [1]		364:3	419:6	419:11	419:13	420:17	421:1	421:8	383:10	410:4	441:14	evidence [25]	208:12
dragging [1]		350:10	421:14	421:20	421:21	422:2	423:6	423:13	endangering [1]			208:21	209:13 210:5
draw [1]	438:3		422:2	423:6	423:13	423:13	423:14	424:2	213:7			223:15	226:17 227:3
Dressen [1]		304:10	424:9	425:3	425:11	425:19	426:3	426:18	ends [1]	347:13		245:8	254:12 266:16
Dresser [1]		328:13	426:19	431:11	431:20	432:4	432:15	432:17	engaged [2]		230:8	271:20	288:17 289:15
drew [1]	405:2		434:11	435:14	436:7	445:19			279:8			290:1	290:6 290:9
Drinker [2]		304:2	duPont's [17]	204:3					engaging [1]	207:19		290:12	290:16 291:1
305:7			204:8	209:10	227:15				engineering [6]	217:11		292:2	292:3 294:6
Drinker's [1]		305:12	227:21	230:3	231:2				286:1	286:15	306:9	294:6	308:17 417:20
driven [1]		279:20	242:13	245:4	245:20				400:4	400:5		evidently [2]	220:20
Drs [1]	261:13		245:18	264:2	264:8				English [2]	253:6		229:7	
duces [1]		365:21	266:3	274:1	296:14				428:15			Ewing [1]	200:5
duc [1]	277:6		434:2						ensure [2]	260:9		exactly [6]	210:17
ily [1]	443:7								343:11			220:10	261:20 315:16
dump [1]		221:8							entire [1]		236:15	319:15	436:3
DUP [1]	281:8		during [19]	217:16					entirety [1]		383:19	examination [16]	
dupont [194]	199:3		221:12	263:9	264:7				entitled [7]		298:3	202:1	210:2 247:16
200:16	203:13	203:21	264:9	267:17	289:5				356:17	356:18	356:19	261:3	351:7 355:19
204:11	205:2	205:3	292:10	355:19	360:9				369:4	373:1	418:6	359:2	359:3 362:20
207:3	207:4	207:5	361:20	397:10	400:11				entries [1]		312:10	376:5	379:17 418:5
207:11	207:13	208:16	401:12	402:1	403:10				entry [7]	229:20	230:18	424:18	434:1 443:9
209:15	209:16	209:19	418:5	431:16	442:7				231:16	238:20	306:19	444:5	
211:13	211:17	212:3	dust [28]	221:8	241:9				307:1	307:5		examined [3]	201:21
212:4	212:11	213:13	243:12	243:16	247:10				enumeration [1]		420:3	303:5	443:8
214:15	215:8	216:8	247:14	260:14	260:16				environmental [5]		232:8	202:15	202:15
217:5	217:7	217:9	260:18	262:21	270:17				232:8	251:6	252:11	208:9	217:10 223:17
217:15	217:17	217:19	278:17	279:6	280:2				400:5	401:19		263:16	274:21 292:4
218:2	221:19	223:8	297:5	304:1	304:5				environments [1]		260:19	301:11	302:15 315:16
223:10	223:16	223:16	305:1	305:10	306:14				EPA [4]	403:19	403:21	316:14	334:8 340:21
223:21	224:13	224:18	325:5	326:19	329:1				404:5	427:13		394:20	407:2 408:9
225:1	225:15	226:2	329:2	334:16	335:20				epidemiology [1]		401:18	416:4	425:5 425:11
226:6	226:10	226:19	415:11	433:5					437:9			exceed [1]	323:5
227:4	229:4	229:16	dustiness [1]	260:15					equipment [3]	260:12		exceeded [2]	329:4
229:20	230:1	230:7	dusts [1]	314:19					276:6	373:18		333:20	
231:14	232:2	232:14	dusty [5]		382:15				ergo [1]	435:8		excellent [1]	412:11
233:7	236:16	239:7	414:19	415:2	415:4				error [1]	335:1		except [1]	324:6
239:12	243:18	243:19	415:9						especially [3]	417:10		exception [4]	211:12
243:21	244:5	245:14	duties [1]	257:10					418:1	442:7		356:3	361:18 394:3
245:16	248:12	248:17	duty [3]	215:5	218:21				ESQUIRE [6]	200:2		excerpts [1]	256:13
249:2	249:4	251:1	225:8						200:5	200:9	200:13	excess [6]	328:17
251:3	251:12	251:15	dye [1]	232:16					200:13	200:17		332:3	333:10 336:1
255:16	255:17	255:18	E [14]	200:13	201:1				espoused [1]	406:15		336:10	336:12
256:12	257:3	257:3	201:1	213:16	213:16				ESQUIRE [6]	200:2		excluding [1]	420:11
257:12	257:13	258:3	214:14	214:14	215:2				200:5	200:9	200:13	excuse [10]	222:14
58:11	259:13	259:14	215:2	216:17	216:17				200:13	200:17		228:3	232:19 280:3
261:19	262:5	263:13	218:15	218:15	327:5								
263:15	265:4	265:11											
265:21	267:14	267:19											
270:9	270:19	271:4											

290:15 312:3 314:8	272:20 272:21 274:12	415:18 415:20 416:5	files [9] 204:2 209:4	followed [1] 423:17
335:5 340:16 410:3	276:17 278:21 280:6	factory [1] 243:15	236:19 281:13 375:7	following [3] 216:13
exercise [1] 373:13	286:7 286:21 290:5	facts [20] 208:12	378:5 382:12 382:15	291:15 362:5
exhaust [2] 260:12	309:6 329:1 343:4	208:21 209:13 226:17	392:1	follows [2] 201:21
277:21	343:7 343:10 343:16	227:3 228:2 236:3	filler [4] 214:8 221:5	221:1
exhaustive [1] 393:15	343:18 413:19 416:18	238:13 245:7 288:14	323:15 324:7	foot [1] 322:21
exhibit [33] 204:16	424:17 430:17 431:7	289:19 291:4 291:21	film [1] 217:15	footnotes [1] 418:20
204:17 206:6 206:13	431:8 432:8 434:2	292:1 292:2 360:14	films [2] 216:19 222:1	Ford [1] 277:10
207:9 211:4 220:1	434:14 435:16 437:10	406:14 406:16 408:5	filter [1] 279:12	Ford's [1] 277:14
220:2 227:9 227:11	438:1 439:1 439:3	432:11	filter-type [1] 221:12	foregoing [1] 385:15
228:4 228:12 228:15	439:3 440:13 440:16	factual [3] 228:19	final [1] 301:1	foreign [1] 427:19
239:20 281:2 281:3	441:4 441:16	364:8 388:16	finally [2] 280:5	foreseeability [1] 410:19
298:14 298:19 299:4	exposures [23] 213:18	fails [2] 285:8 292:8	347:12	forewarning [1] 299:19
300:11 306:15 331:1	262:20 263:9 270:8	failure [4] 291:16	findable [1] 393:17	forgery [1] 409:20
334:13 351:3 351:17	270:8 270:15 271:15	333:13 349:18 350:9	finding [4] 320:20	forgetting [1] 425:9
355:12 355:14 356:5	271:15 272:13 272:13	fair [6] 215:18 251:21	421:21 441:21 442:1	forgotten [1] 237:14
356:14 357:10 358:14	275:1 290:10 291:8	285:11 356:15 358:4	findings [2] 240:8	form [51] 208:11
358:14 363:7	294:9 295:10 296:4	412:18	245:1	208:20 209:12 222:11
exhibits [6] 211:7	296:16 328:17 332:14	fairly [3] 221:8	fine [4] 205:20 210:12	223:2 223:12 223:19
211:15 297:20 357:6	333:10 333:19 414:5	408:21 441:3	237:11 383:15	224:4 226:15 227:1
444:10 445:4	434:19	fall [1] 439:4	finish [5] 367:4	228:5 229:17 244:8
exist [3] 358:11 402:13	expressed [2] 408:5	falls [1] 366:21	367:4 367:18 368:1	249:10 252:7 257:15
402:16	430:5	falsified [1] 409:20	437:6	259:1 259:20 265:13
existed [1] 424:15	expresses [1] 329:18	familiar [4] 207:8	finished [1] 266:18	266:5 266:15 271:17
exists [3] 232:4	extension [1] 404:12	318:4 318:5 410:11	finishers [1] 225:17	272:15 273:17 276:18
253:8 438:3	extensive [1] 240:14	familiarity [3] 204:5	finishes [4] 213:14	280:8 285:7 286:8
Exkase [2] 322:20	extent [1] 236:5	401:4 401:10	214:15 218:18 225:17	286:17 287:19 295:14
322:20	237:6 237:8 264:2	famous [1] 232:15	Finishing [1] 225:18	296:7 296:18 301:1
expansion [3] 323:1	295:20 328:21 356:21	far [7] 227:21 262:1	firearms [1] 217:19	301:15 302:17 302:21
346:12 347:8	364:10 365:1 392:20	398:1 401:1 412:19	firms [1] 231:14	306:7 307:12 310:12
expect [3] 297:21	393:3	434:6 434:9	first [55] 202:7 207:10	312:6 317:6 321:2
315:1 358:21	extra [2] 205:9 216:4	fashion [2] 228:8	207:12 212:5 217:4	321:12 323:18 324:2
expense [2] 366:11	extraneous [1] 233:10	376:18	229:21 230:4 232:7	325:15 330:3 348:9
425:6	extraordinary [1] 221:13	father [1] 288:17	236:14 245:11 251:8	349:7 350:2
expensive [1] 337:15	extreme [1] 277:7	fault [1] 233:18	254:21 264:14 267:11	formal [2] 222:18
experieccc [2] 332:2	extremely [1] 382:14	features [1] 243:2	279:4 284:19 289:1	400:2
368:6	cyc [2] 278:5 278:15	February [4] 308:11	291:10 291:16 298:2	formally [1] 372:10
experimental [2] 255:8 255:10	cycs [1] 405:14	309:16 316:10 443:17	298:16 301:20 303:1	formed [1] 305:5
expert [8] 234:12	F [3] 338:15 346:6	federal [1] 324:21	305:5 305:5 307:20	former [2] 382:4
236:8 369:8 370:16	444:14	feeding [1] 379:5	309:10 317:2 318:4	391:11
370:20 371:4 384:4	F-i-s-c-h [1] 327:6	feet [1] 350:10	321:4 325:3 326:16	forms [1] 290:9
411:4	fabrication [1] 213:6	felt [5] 253:7 274:21	327:11 328:7 330:21	formulas [1] 348:19
expertise [5] 203:15	Fabricator [2] 304:19	334:3 380:8 425:12	334:9 344:5 351:12	formulating [4] 211:16
230:10 317:9 400:21	305:15	few [9] 206:19 210:20	351:16 357:16 389:3	238:13 293:5 293:7
413:6	fabrics [5] 213:14	297:21 298:14 305:5	393:2 394:6 402:4	Fort [1] 200:15
experts [4] 238:16	214:15 218:18 225:16	350:15 378:7 413:3	404:17 404:17 406:2	forth [3] 322:14 359:4
250:16 363:21 368:15	225:18	413:14	406:4 407:1 413:16	384:2
Expires [1] 443:20	fac [1] 271:16	fiber [9] 212:15 214:1	415:11 421:11 422:8	forward [1] 267:9
explain [2] 209:9	face [1] 320:14	218:4 218:17 220:18	433:14 443:7	found [8] 303:4
395:4	facet [1] 401:3	221:2 340:19 341:11	Fisch [1] 327:5	306:6 320:13 324:16
explicitly [2] 208:4	facilities [1] 275:8	444:14	fist [1] 311:17	329:10 340:1 340:20
317:15	facility [12] 271:16	fiberized [1] 243:15	fit [1] 423:19	341:12
explore [1] 377:19	272:1 272:6 272:14	fibers [5] 214:1	fitter [1] 441:12	Foundation [13] 244:1 244:12 249:7
exposed [30] 221:8	272:1 272:6 272:14	214:3 329:16 330:20	fitters [1] 270:13	305:2 305:3 305:6
247:17 260:9 268:16	288:20 344:19 400:14	343:16	five [4] 235:12 325:5	312:15 312:20 314:1
270:11 270:17 274:6	426:7 431:14 431:17	field [3] 302:12 405:5	404:16 426:15	314:10 315:9 315:12
288:18 289:5 292:11	431:21 435:15	412:15	Fleming [1] 261:13	316:1
292:12 329:3 349:6	facing [1] 203:2	fig [1] 319:12	floor [3] 200:6 329:17	four [6] 279:21 332:5
413:18 416:7 416:10	fact [23] 202:13 208:17	figure [1] 271:8	359:7	390:18 400:3 400:6
416:12 424:16 424:21	228:15 232:14 240:16	figures [2] 225:11	floors [1] 203:1	400:11
427:13 430:18 433:4	253:12 273:15 274:3	319:12	focused [2] 402:7	Fourth [6] 299:3
433:10 435:8 435:14	280:6 283:7 290:2	file [6] 211:8 234:18	407:2	356:11 372:8 419:16
435:21 436:10 438:1	293:11 312:19 329:15	236:15 355:21 356:1	folks [1] 425:11	419:18 419:21
438:10 438:19	333:10 358:9 405:18	376:8	follow [1] 205:12	frame [11] 246:17
exposure [42] 242:2	408:15 409:1 431:12	filed [5] 217:5 217:6	follow-up [2] 436:21	
253:13 258:4 263:6	433:2 433:8 437:10	221:17 282:2 289:17	440:21	
265:16 269:5 269:15	factories [4] 414:1			

264:4 265:12 268:3	362:3 362:16 363:14	Hammond [3] 336:8	219:14 220:21 227:16	home [1] 366:8
268:15 292:10 303:12	365:10 365:12 368:3	344:15 344:19	230:14 231:12 231:20	honestly [1] 361:11
335:15 349:18 417:12	371:18 375:11 377:6	hand [11] 201:16	240:11 242:1 242:5	hopeful [1] 274:16
417:13	378:13 388:19 390:3	211:1 216:7 254:12	243:9 257:4 264:3	hopefully [1] 367:21
ames [1] 289:5	392:3 422:19	260:21 261:4 278:1	266:4 266:12 267:3	hopelessly [2] 296:19
ancisco [1] 393:11	giving [5] 201:12	279:19 325:21 342:6	286:16 288:6 289:4	350:4
Frederick [1] 415:9	317:20 345:9 345:17	443:16	289:10 293:13 298:4	Hopkins [6] 399:17
free [3] 253:13 280:2	426:15	handbook [1] 412:20	300:16 301:7 302:16	400:13 400:19 401:9
343:8	glove [2] 278:5	handed [1] 351:16	324:1 324:4 324:5	401:12 402:1
freely [1] 428:8	278:15	handing [1] 333:5	325:1 333:2 335:20	Hospital [1] 318:20
French [1] 428:19	gloves [2] 278:14	handle [1] 263:17	348:3 399:14 402:3	hot [1] 320:14
frenzy [1] 379:5	441:10	handlers [1] 441:11	402:5 403:1 417:20	hours [4] 298:14
frequent [1] 433:4	goes [15] 215:17 217:2	handling [8] 215:19	417:21 418:14 428:9	301:2 397:6 439:7
frequently [1] 439:9	218:19 251:21 252:3	215:20 219:12 219:16	431:2 432:18 432:20	housekeeping [1]
fresh [1] 279:9	253:10 275:20 276:9	220:4 221:12 230:8	434:7 435:4	260:14
frightening [2] 285:4	280:10 283:10 343:15	handwritten [4] 214:7	head [1] 283:11	Houston [1] 380:4
285:15	383:5 388:2 390:17	318:13 328:11 444:18	headaches [1] 431:5	Hubiak [2] 215:11
front [4] 241:6 275:12	433:18	HANES [1] 199:8	headquarters [1] 202:21	445:6
300:10 335:16	Gollatz [1] 200:5	happy [1] 441:1	health [28] 213:7	Hueper [11] 232:7
full [1] 304:18	good [9] 202:3 260:13	harassment [1] 392:5	219:11 219:14 231:7	232:11 246:10 252:16
full-page [1] 305:15	297:12 382:12 393:17	Harbison [5] 298:3	231:12 242:14 242:19	254:11 255:14 262:15
full-time [3] 275:18	411:12 411:16 411:21	306:4 307:10 323:20	266:4 266:9 266:12	263:17 264:16 429:17
404:9 425:4	412:10	346:15	271:5 309:9 319:7	430:2
fully [1] 341:4	Gordon [3] 233:6	Harbison-Walker [41]	324:19 324:21 342:13	Hueper's [9] 245:5
Fulton [4] 329:12	238:10 277:1	200:7 200:11 297:11	343:2 344:8 382:20	245:12 246:3 251:6
330:9 333:11 336:9	government [4] 254:13	299:5 300:17 301:5	399:18 400:7 401:16	251:20 252:10 254:2
Fume [1] 247:7	342:15 424:12 424:14	301:7 302:1 302:2	402:8 405:5 405:9	254:6 429:19
function [1] 276:10	governmental [4]	305:16 307:20 308:3	405:16 425:20 429:14	human [2] 255:11
furnace [2] 320:9	382:3 382:9 391:10	308:10 308:20 309:1	hear [2] 353:12 428:5	255:11
320:15	423:8	311:4 311:20 318:11	heard [1] 411:20	humble [1] 392:5
furnaces [1] 320:5	grade [1] 330:19	320:3 320:19 321:10	hearth [3] 320:5	husband [1] 288:18
ture [5] 213:8	gradual [1] 413:11	322:16 323:17 325:4	320:9 322:12	HW [1] 321:15
70:8 337:13 372:5	grams [1] 219:1	326:19 328:3 328:14	hearths [1] 320:21	HW-103 [5] 328:5
372:12	GRC [3] 336:4 337:15	332:16 332:19 333:6	heating [1] 320:12	328:8 329:21 332:11
G [6] 201:1 309:17	339:19	336:1 338:6 338:17	heats [2] 320:9 321:1	332:17
338:8 339:2 339:18	great [6] 244:17 252:4	339:13 342:17 344:10	heavy [3] 215:5	HW-104 [4] 325:20
339:20	255:7 303:4 307:16	347:12 347:21 348:5	218:20 225:8	326:13 327:12 327:20
gain [1] 433:1	413:8	348:21 349:21	heck [1] 425:3	HW-105 [3] 329:8
games [1] 438:4	greater [1] 397:18	Harbison-Walker's	held [8] 241:18 267:16	329:21 332:11
Garber [1] 338:16	greatest [1] 243:14	[7] 306:20 311:8	270:6 309:13 309:14	HW-108 [3] 335:15
Gardner [2] 304:3	GREG [1] 200:17	313:21 314:12 332:2	309:16 313:14 404:5	337:9 337:18
304:6	Griffin [1] 200:5	346:9 349:16	help [2] 203:7 265:4	HW-109 [2] 337:21
gather [1] 406:9	grossly [4] 292:3	hard [3] 379:1 399:5	helped [1] 403:16	338:1
gears [1] 297:8	333:9 350:1 350:8	438:2	helper [1] 441:9	HW-124 [1] 341:19
general [10] 204:4	ground [1] 205:18	Hardy [1] 250:18	helpful [1] 281:20	HW-139 [1] 346:1
231:12 264:4 292:14	grounds [4] 299:7	harm [1] 410:19	hereby [1] 443:4	HW-152 [1] 313:5
313:20 314:11 328:15	299:8 299:18 360:21	Harriet [1] 250:18	herein [2] 201:19	HW-162 [2] 318:16
426:6 426:8 434:17	group [6] 221:6	Harvard [1] 305:8	443:6	319:17
generally [11] 231:7	315:14 375:4 376:1	Haskell [15] 212:10	high [3] 279:12 293:2	HW-167 [1] 315:8
244:4 255:12 288:10	390:16 394:13	213:2 214:16 216:18	416:7	HW-171 [1] 306:17
312:18 312:18 313:19	guess [6] 205:17	218:14 219:7 220:16	highlights [1] 206:10	HW-257 [2] 321:6
324:1 336:16 410:18	326:16 355:8 423:11	230:12 231:17 232:14	himself [1] 254:11	322:9
432:20	437:18 439:3	232:21 238:4 254:20	hired [6] 232:6 255:15	HW-270 [1] 338:9
generated [1] 374:7	guest [3] 308:8 309:2	258:2 267:20	403:20 404:1 404:13	HW-323 [3] 331:16
gentlemen [4] 206:5	412:6	hate [1] 237:15	436:6	332:9 336:15
257:17 303:13 434:20	guidelines [3] 271:14	hazard [15] 207:20	historic [1] 375:6	HW-329 [3] 339:10
Georgia [1] 316:18	272:12 272:20	208:4 214:19 215:6	historically [2] 203:17	339:12 339:17
German [4] 253:14	guy [1] 360:6	215:21 219:3 222:4	301:8	HW-332 [1] 340:21
254:13 428:17 428:19	guys [1] 423:11	241:8 244:13 266:9	history [6] 204:5	HW-337 [1] 343:21
Germany [2] 244:17	H [3] 200:17 279:13	271:5 277:7 414:15	388:12 388:13 408:3	HW-64 [2] 339:11
52:5	337:19	424:21 438:3	410:18 418:12	340:5
given [24] 222:12	H-u-b-i-a-k [1] 215:11	hazardous [4] 230:9	hod [1] 441:14	HW-82 [2] 334:2
267:5 298:2 298:9	half [4] 320:14 361:13	270:21 323:18 339:6	Hoffman [1] 415:9	334:13
298:11 298:13 299:11	398:4 400:4	hazards [54] 202:11	hold [6] 330:5 331:16	HW-86 [3] 322:6
299:18 325:2 325:6	Hamilton [3] 200:9	204:4 204:9 205:2	345:9 345:17 422:7	322:8 322:19
	250:15 250:17	205:4 207:15 215:14	429:3	
		216:11 216:21 219:12		

HW-94 [1]	323:9	Incidentally [1]	284:8 314:17 328:17	289:18 435:6	338:5 338:16			
HW-95 [1]	324:15	311:10	344:7 355:12	injury [11]	213:8			
hygiene [28]	244:1	incidents [1]	330:2	291:8 294:10 295:9	interpose [1]	357:14		
244:6 244:10 244:11		include [3]	302:14	296:2 296:15 434:4	interpretation [3]	234:3 374:7 437:19		
248:6 248:21 249:7		316:12 319:4		437:14 437:19 440:15	interpreted [1]	395:21		
249:19 305:2 305:3		included [8]	204:7	441:19	interrogatories [9]	206:20 223:3 236:10		
305:6 315:9 315:12		217:12 233:5 244:12		inquiries [1]	325:10	308:3 311:9 347:11		
316:1 399:17 402:12		258:1 325:1 349:1		inquiry [1]	274:13	347:19 407:15 445:10		
402:16 403:5 411:12		393:9		insert [2]	258:21	interval [1]	253:13	
411:17 411:21 412:4		includes [6]	214:8	308:14	insidious [1]	376:17	interviewed [1]	256:2
412:5 412:12 412:16		236:16 236:18 292:4		insist [1]	347:8	investigate [1]	337:15	
412:21 413:7 417:8		304:21 308:9		inssofar [1]	227:18	investigating [1]	257:8	
hygienist [2]	215:5	including [10]	231:14	inspections [1]	339:8	investigation [7]	273:6 273:13 274:1	
215:11		236:9 236:9 258:18		Inspector [1]	416:4	274:5 320:2 330:8	330:9	
hygienists [2]	412:18	303:18 308:10 316:18		institute [4]	232:9	investigations [1]	257:19	
412:19		317:16 362:16 428:10		342:13 343:1 384:8	280:5	invited [1]	406:4	
hypotheticals [2]	291:19 292:14	income [2]	398:1	instituted [1]	384:9	inviting [1]	339:8	
I-O-S-H-A [1]	344:6	398:2		institution [1]	373:20	involve [2]	414:5	
idea [2]	354:2 354:14	incomprehensible [1]	229:19	instrument [1]	373:19	414:18	involved [18]	202:20
identification [3]	204:18 211:5 351:4	inconsistent [2]	327:20 336:19	instruments [1]	228:6	226:3 226:7 226:11	226:19 227:5 255:12	256:17 258:3 315:1
identified [6]	210:13	Incorporated [2]	215:13 305:17	insufficient [2]	291:20	325:9 367:2 370:17	381:15 397:12 405:5	415:17 439:18
223:4 228:5 289:16		incorporating [1]	215:15	insulate [2]	208:8	involvement [9]	231:2 263:14 276:16	313:21 314:12 314:13
433:11 437:16		increased [1]	319:9	427:8	275:21	338:19 404:15 404:18	involving [6]	217:7
identify [5]	204:16	incriminated [1]	258:14	insulating [3]	276:7 276:8	255:12 270:21 346:12	346:19 413:18	
209:8 211:21 377:8		incurring [1]	213:8	276:7 276:8	203:1	IOSHA [1]	344:6	344:11 344:21
432:3		ind [1]	232:18	insulation [12]	247:12 248:4 269:14	Ira [5]	199:11 199:13	201:18 444:2 445:2
IHF [1]	316:12	independent [3]	406:12 407:4 409:11	269:15 269:20 270:17	276:1 276:8 279:3	isolated [1]	279:5	
II [5]	199:10 199:12	independently [1]	408:17	276:1 276:8 279:3	280:1 283:7 319:2	issue [7]	264:4 304:20	305:14 367:18 380:3
200:14 263:9 329:17		index [3]	419:14	280:1 283:7 319:2	408:19 416:3 421:3	394:1 415:3	issued [1]	285:21
ill [2]	269:12 430:17	444:1 445:1		421:10 421:15 421:17	421:10 421:15 421:17	issues [2]	293:18	391:18
illegal [4]	421:3	Indiana [6]	344:8	422:4 423:7 423:13	424:3 424:5 424:6	Italy [1]	304:11	
421:10 421:16 422:3		344:14 344:15 344:18		424:10 425:3 426:11	424:10 425:3 426:11	item [2]	212:5 341:5	
illness [1]	431:6	345:10 345:15		433:4 436:8 438:19	439:9	items [4]	206:19	362:7 406:13 407:4
illustrated [1]	388:4	Indianapolis [1]	340:13	insulator [2]	288:19	itself [5]	240:6 277:19	280:12 319:17 401:11
ILO [3]	242:14 242:18	240:13		441:8	269:3	Ivan [1]	313:10	
242:19		indicate [36]	226:6	insulators [12]	270:13 275:16 275:18	J [6]	267:11 267:12	299:14 337:19 444:17
imagine [1]	227:20	226:10 226:18 227:4		275:19 276:13 276:15	279:8 414:6 416:19	445:6	J.A [3]	444:16 444:20
immediately [1]	430:12	243:17 245:14 251:1		279:8 414:6 416:19	417:10 438:18	445:7 445:12 445:16	J.B [1]	445:6
imminent [1]	331:9	251:12 252:11 257:11		insurance [4]	241:13	445:7	J.F [3]	444:15 444:18
impeach [2]	234:8	259:12 266:2 266:11		242:9 328:10 329:13	241:13	249:5 249:15	JAMA [3]	248:8
422:9		268:19 271:2 273:10		intended [1]	353:21			
implement [1]	283:12	273:21 274:20 278:20		intensities [1]	416:7			
implies [1]	221:5	280:4 280:19 282:7		intent [2]	354:11			
importance [2]	302:11	287:12 308:19 312:10		354:17				
405:6		322:8 331:4 332:19		intention [1]	357:19			
important [6]	270:10	338:1 340:11 343:3		interacting [1]	344:11			
416:17 417:4 429:2		344:17 345:14 346:8		intercompany [1]	326:18			
429:2 437:2		346:15 432:17		interest [4]	232:1			
imposed [1]	425:2	257:20 262:19 268:12		232:17 314:17 342:3	312:17			
imposes [1]	221:11	269:13 270:1 270:3		315:3 399:7 443:15				
impressed [1]	405:18	270:18 271:7 276:21		intermediates [2]	231:21 232:16			
impression [1]	381:5	277:9 286:11 307:10		intermittent [1]	336:4			
impressions [1]	360:15	309:10 312:2 321:9		internal [3]	208:16			
improper [8]	223:6	329:2 333:12 355:14		408:18 420:19				
223:20 233:20 234:3		388:18 419:14		interoffice [3]	325:3			
271:18 272:16 291:19								
409:20								
in-house [1]	230:13							
INC [1]	199:8							
inch [3]	320:14 322:21							
323:5								
incident [1]	330:2							

James [4] 212:10 214:6 216:10 444:14	Keuper [24] 264:13 264:17 265:1 265:7 265:9 266:2 278:19 280:4 281:1 281:10 282:1 283:1 283:15 284:3 290:20 432:14 433:21 434:5 435:12 435:13 436:4 437:4 440:6 440:13	Lab [5] 213:2 214:17 216:18 220:17 255:16	leader [2] 412:15 429:13	LEWIS [1] 200:9
Janie [3] 199:2 362:6 362:8	kill [1] 413:15	labelling [1] 348:8	leaders [1] 424:7	liability [2] 213:8 288:11
January [12] 199:14 31:4 220:14 282:15 300:7 337:2 340:9 352:9 410:7 442:17 444:3 445:3	killed [3] 432:7 434:13 435:16	labels [7] 334:6 348:18 350:9 408:10 408:12 408:14 408:16	leading [2] 295:15 304:4	libraries [1] 393:14
JEFFERSON [1] 199:1	kind [8] 374:14 390:19 401:3 409:2 412:20 431:5 434:18 436:4	labor [2] 333:4 342:3	leafing [1] 351:17	library [7] 207:4 207:7 233:2 233:2 238:5 360:1 420:17
job [2] 318:1 439:5	kinds [3] 284:19 305:11 315:13	laboratories [4] 212:14 230:13 258:3 267:20	leak [7] 215:6 218:21 221:4 222:2 224:19 225:3 225:8	license [1] 369:2
jobs [1] 441:17	Kinston [11] 271:15 271:21 272:6 272:14 272:21 277:10 277:16 288:20 431:14 431:14 432:8	laboratory [20] 212:10 212:11 217:11 218:14 219:7 219:8 219:16 220:3 220:17 222:3 231:17 231:19 232:4 232:4 232:21 238:4 255:7 255:7 256:17 320:2	learn [2] 231:7 401:16	licenses [1] 384:7
John [7] 214:16 216:10 299:14 311:18 319:20 329:14 445:14	knowing [1] 431:1	ladies [3] 206:4 257:17 303:13	learned [2] 306:5 418:15	life [3] 242:8 378:8 397:5
Johns [6] 399:17 400:13 400:19 401:11 402:1 408:21	knowledge [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	laboring [1] 397:6	least [20] 266:9 274:21 280:7 290:20 311:20 348:7 349:1 349:19 381:6 383:6 413:4 416:3 423:19 424:6 425:18 426:20 434:7 439:10 439:10 439:11	lifetimes [1] 384:7
Johns-Manville [2] 334:9 408:9	knocks [1] 383:18	Labs [2] 232:14 254:20	leave [1] 378:9	lifetime [1] 405:8
Johnson [2] 241:11 337:19	known [7] 227:19 286:6 286:11 403:15 410:21 410:21 413:14	lagging [1] 311:1	led [1] 317:14	light [16] 199:16 201:6 265:1 266:20 272:8 273:19 286:13 294:1 295:17 306:3 310:13 321:3 327:17 345:13 358:9 435:10
join [3] 292:18 293:21 440:3	knowing [1] 431:1	Lake [1] 309:14	Lee [1] 200:19	likely [3] 246:10 333:17 337:4
joining [1] 274:12	known [16] 274:4 291:7 294:8 296:1 354:3 354:13 417:21 429:6 429:8 429:10 432:2 433:1 434:20 435:4 435:4 439:20	lamine [2] 217:15 226:7	leg [1] 378:9	limit [10] 214:3 275:15 332:7 336:4 336:6 336:7 336:9 336:10 336:13 387:7
journal [8] 219:10 248:17 249:8 249:15 302:5 302:5 386:1 395:8	knocks [1] 383:18	language [4] 334:7 408:14 428:15 428:18	legis [4] 421:1 421:8 421:12 422:2	limitation [1] 276:12
journals [5] 244:18 384:13 386:16 392:13 395:1	knowing [1] 431:1	languages [4] 244:19 427:19 428:11 428:12	left [1] 327:4	limited [4] 221:6 397:16 402:2 402:21
July [4] 330:5 330:9 336:7 346:4	knocks [1] 383:18	Lanza [1] 242:8	legal [11] 213:10 221:16 315:11 317:2 317:13 369:4 418:6 420:14 432:10 435:19 445:17	limiting [1] 424:19
June [6] 215:9 218:4 218:13 299:15 313:14 330:16	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	Lanza's [3] 303:18 304:13 307:7	legis [1] 239:3	limits [10] 328:18 332:4 332:10 332:15 333:11 333:20 336:2 336:17 343:16 343:18
junk [1] 377:12	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	Larry [3] 200:13 264:19 351:9	legis [1] 307:2 317:15 337:12	Limpet [1] 279:3
jury [14] 202:17 206:5 209:9 210:16 212:1 231:2 257:18 262:10 288:17 289:15 294:7 303:13 311:6 347:16	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	last [25] 212:17 221:15 256:4 256:5 262:1 287:7 294:19 295:12 295:13 295:17 301:2 322:18 333:18 345:16 351:13 354:21 356:13 356:16 358:5 358:6 375:11 379:9 382:20 390:18 409:17	length [2] 246:5 286:5	line [1] 325:3
K-e-u-p-e-r [1] 264:17	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	lastly [2] 290:14 347:10	lengthy [2] 290:4 307:13	lined [1] 206:8
Karrh [5] 285:1 285:2 285:14 287:9 288:7	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	latter [1] 228:19	less [6] 341:17 400:6 421:2 421:9 422:3 423:6	lines [2] 285:9 438:3
Kaylo [1] 258:4	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	laws [2] 315:15 315:17	lessen [1] 288:11	link [5] 252:12 252:12 252:13 254:7 265:15
Keene [2] 423:10 423:11	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	lawsuit [5] 364:5 369:13 370:21 383:7 430:16	Lester [9] 292:10 368:15 430:15 431:13 431:16 432:6 434:3 434:13 442:10	linking [1] 430:6
keep [5] 274:16 365:13 368:4 381:9 396:10	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	lawsuits [2] 382:5 391:12	letter [23] 214:13 258:12 315:8 316:8 328:9 328:20 329:13 337:8 337:11 352:18 352:20 353:2 444:13 444:15 444:17 444:19 444:21 445:5 445:7 445:9 445:11 445:13 445:15	liquid [1] 212:7
keeping [1] 376:11	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	lawyer [8] 313:11 376:9 376:21 377:10 378:10 379:19 380:12 384:2	letterhead [2] 213:1 213:14	list [24] 212:2 308:8 309:2 339:6 357:11 357:15 363:7 365:21 366:5 366:16 367:11 367:19 368:1 371:6 371:9 371:11 371:16 375:13 383:9 383:10 385:9 386:9 390:7 412:21
keeps [1] 312:19	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	lawyers [9] 203:10 377:2 378:14 378:16 378:19 380:10 380:15 380:17 409:15	letters [5] 362:2 362:10 363:13 363:19 380:10	listed [7] 222:1 223:11 278:13 299:4 316:17 316:20 376:20
Ken [2] 440:6 440:13	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5	lead [1] 434:4	level [7] 202:10 203:15 269:11 290:17 343:7 343:10 344:9	listing [3] 228:16 278:12 363:8
Kennaway [2] 253:1 53:1	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:5 288:5 293:12 293:13 295:9 296:15 298:4 300:16 301:7 306:21 379:11 389:13 408:3 409:4 409:18 410:18 413:10 417:1 418:9 418:13 418:15 419:10 419:11 429:6 429:9 429:11 431:12 431:15 432:4 432:6 432:18 432:19 433:9 433:12 433:13 433:14 433:18 434:2 434:12 434:18 435:7 436:4 436:6 436:20 439:21 440:5		levels [1] 329:3	lists [1] 316:15
Kenneth [2] 264:13 265:7	known [70] 202:10 203:11 203:16 203:20 204:3 204:8 205:1 205:3 207:14 227:15 228:1 229:14 229:15 230:14 231:11 240:10 264:2 264:7 264:8 265:10 265:18 266:3 267:8 286:16 288:			

390:15 390:16 397:15 404:14 404:16 406:3 409:16 410:15 410:17	litigation-related [1] 398:3	live [2] 371:7 390:8 lives [1] 405:13 living [1] 269:19 Livingston [4] 199:17 201:8 443:3 443:19 located [1] 400:13 location [3] 212:12 284:4 426:7 locations [1] 279:5 locomotive [1] 305:17 logo [1] 287:5 logs [1] 373:18 longest [1] 365:21 look [15] 204:15 205:6 209:7 215:10 237:1 262:9 355:21 366:9 366:17 393:3 394:8 408:13 440:19 441:6 441:7 looked [4] 354:4 354:4 357:13 407:17 looking [8] 210:17 254:9 275:13 280:17 320:4 322:6 396:12 398:17 looks [5] 215:2 283:20 328:10 340:9 359:8 loose [1] 212:15 Los [1] 405:14 lots [1] 425:19 lucrative [1] 341:17 Lukens [1] 346:14 luncheon [1] 300:3 lung [34] 229:3 240:17 240:20 244:13 246:11 251:7 252:2 252:5 252:11 252:13 252:19 252:19 252:21 253:6 253:13 253:20 254:1 254:7 254:14 258:16 260:1 262:21 265:16 268:15 269:8 286:6 286:20 310:1 310:5 314:18 399:13 401:20 430:4 430:7 lungs [5] 304:2 304:5 305:10 305:12 306:11 Lynch [3] 260:1 260:4 260:6 M.D.s [1] 262:5 MacMurray [7] 217:6 217:9 217:20 221:17 223:1 223:4 445:17 magazine [7] 231:10 304:16 304:19 306:6 318:9 386:1 395:8 magazines [1] 360:2 main [2] 200:10 329:17 Maine [1] 316:18	maintain [2] 233:1 372:12 maintained [3] 207:4 238:4 239:7 maintenance [1] 373:18 major [3] 231:13 267:15 317:13 majority [2] 206:12 206:17 makes [18] 207:10 213:3 213:16 217:8 219:9 220:19 229:5 237:8 237:9 253:11 259:19 260:11 263:3 277:20 318:18 318:19 329:15 334:20 Maladies [4] 238:21 239:6 239:11 240:9 males [1] 253:2 man [2] 234:20 247:2 man's [1] 215:10 management [4] 257:13 257:21 283:16 333:4 Manhattan [3] 202:14 202:19 301:11 manifest [1] 253:14 manner [2] 210:1 405:20 manufacture [14] 207:17 208:10 215:19 226:3 226:7 226:12 226:19 227:5 272:3 272:4 272:5 311:4 349:17 416:1 manufactured [9] 220:1 223:9 223:16 224:1 224:7 224:14 224:18 225:16 225:20 manufacturer [4] 207:11 207:13 208:18 211:18 manufacturers [2] 408:19 418:13 manufacturing [7] 209:11 341:6 348:6 414:2 415:21 416:14 418:18 manuscript [1] 242:14 manuscripts [1] 372:14 Manville [1] 409:1 March [1] 342:19 mark [3] 210:21 240:1 281:5 marked [16] 204:16 204:18 210:4 210:9 211:5 211:6 218:7 218:9 239:21 281:3 281:4 281:5 300:11 351:4 351:17 356:13 market [1] 257:4 markings [1] 216:7 Maryland [5] 199:16 199:20 201:7 443:1 443:4	mas [1] 403:9 masks [1] 277:6 Master's [5] 398:11 400:5 403:10 404:12 404:21 material [20] 204:2 206:7 206:17 207:17 213:5 215:14 216:12 219:14 221:3 227:18 234:9 247:11 247:13 306:8 331:10 337:16 339:7 346:12 416:1 433:6 material's [1] 343:12 materials [17] 211:13 221:6 221:10 230:9 230:15 231:8 238:3 242:6 257:2 257:5 275:21 276:7 276:8 279:18 293:7 297:10 301:5 302:13 339:6 341:15 350:12 369:8 384:16 385:16 386:19 392:16 393:9 409:8 409:11 420:9 420:13 426:11 427:16 427:18 428:21 432:20 442:8 matter [7] 266:7 292:13 358:16 358:20 387:15 394:19 409:21 matters [9] 237:10 253:19 357:11 363:21 393:4 395:13 396:16 398:3 409:12 maximum [1] 243:14 may [38] 205:6 212:17 216:4 219:18 222:5 225:2 225:10 225:19 227:20 229:13 253:12 272:18 274:8 275:1 275:1 276:3 278:10 287:14 292:11 292:19 298:9 340:10 360:10 363:4 367:6 377:2 378:10 382:18 385:2 391:18 395:1 399:4 399:7 411:18 425:4 425:11 435:1 437:12 McConnell [1] 304:2 McIntyre [10] 309:13 312:4 312:5 312:14 312:20 313:17 314:1 314:1 314:9 314:10 McIntyre-Saranac [4] 308:4 309:4 309:11 310:7 McLaughlin [3] 309:18 309:19 310:20 McLaughlin's [1] 310:6 McNeeley [1] 317:13 mean [38] 210:7 217:5 233:14 262:16 336:19 349:4 354:16 359:21 360:1 365:20 372:14 376:17 380:14 385:4 387:2 387:6 387:17 388:9 399:21 401:1 401:8 403:2 403:13 405:13 405:14	410:14 410:16 414:11 415:5 415:6 420:15 421:12 427:7 434:6 435:3 437:3 437:5 437:21 meaning [1] 330:19 means [3] 230:15 260:16 372:7 meant [1] 441:4 measure [1] 347:2 measured [1] 431:9 measurement [1] 260:19 measures [17] 243:3 243:8 243:11 246:12 248:6 260:8 276:3 276:6 277:16 278:13 278:20 279:2 280:6 280:20 283:1 290:19 416:13 measuring [1] 439:6 mechanisms [2] 277:15 401:6 media [1] 371:19 medical [44] 229:21 230:4 230:6 233:2 238:5 239:2 243:2 244:18 245:1 246:6 247:16 248:12 248:16 248:17 249:8 249:9 249:16 250:16 252:1 259:7 261:2 262:8 267:13 268:17 273:4 274:20 276:11 285:4 285:15 307:14 307:15 345:3 348:2 348:4 359:4 368:20 369:4 400:13 400:19 401:11 417:8 418:6 420:13 424:18 medical/legal [1] 246:13 medically [1] 429:12 medicine [10] 213:3 219:10 231:18 233:1 261:5 261:12 265:19 369:1 413:7 437:10 meet [3] 210:20 231:7 422:11 meeting [4] 308:7 386:3 395:11 395:15 meetings [5] 231:6 241:16 263:18 396:6 412:7 member [6] 243:21 244:11 302:2 412:3 412:5 412:8 members [2] 247:21 412:21 memo [4] 278:11 338:18 340:16 342:20 memoranda [1] 261:15 memorandum [18] 212:21 219:6 275:7 277:5 277:9 277:12 277:15 284:3 299:15 325:13 326:18 327:1 327:7 328:9 337:17	338:4 342:21 344:1 memorandums [1] 273:3 memory [2] 361:10 422:20 memos [2] 273:16 273:21 men [2] 279:17 331:10 mental [1] 360:14 mention [3] 418:20 419:6 425:7 mentioned [13] 204:11 216:3 221:21 247:5 258:16 262:6 268:13 303:19 304:14 305:4 401:20 419:2 433:2 mentioning [2] 285:3 285:15 mentions [2] 257:1 331:17 Meredith [2] 200:13 205:21 Merewether [4] 253:11 302:15 303:2 414:15 Merewether's [1] 240:14 mesothelioma [4] 263:4 273:6 273:11 274:1 met [1] 256:1 metal [1] 270:13 288:19 323:16 meter [1] 343:17 methodology [4] 373:12 388:3 388:8 406:6 methods [1] 373:5 Metropolitan [1] 242:8 Mexico [1] 317:1 micron [1] 279:13 mid [1] 267:14 Middleton [1] 304:3 Midland [1] 346:13 might [27] 219:3 262:4 269:5 271:5 279:6 297:12 299:20 324:11 331:8 333:3 337:14 338:7 353:17 365:16 379:13 380:20 382:12 383:3 383:4 393:19 403:16 408:15 411:12 412:3 419:3 423:15 431:6 miles [1] 400:17 millers [2] 413:21 415:18 milliliter [2] 214:2 214:3 million [1] 203:3 MILTENBERGER [3] 200:9 205:21 440:1 mind [4] 281:7 292:17 422:16 423:18 miners [2] 413:21
---	---------------------------------	---	---	---	---	--

415:17	333:8 337:5 343:14	318:21 324:20 394:2	374:1 374:4 380:14	272:5 272:5
mining [3] 313:11	moving [4] 267:9	394:15 417:3 419:21	382:13 396:8 398:6	nylons [1] 224:1
416:14 418:16	278:18 284:2 330:11	420:4	notice [5] 201:12	O [1] 201:1
minute [2] 305:10	MS [1] 206:2	Newall [1] 301:13	298:14 353:15 355:15	oath [2] 422:19 426:18
006:11	MSA [1] 279:11	News [6] 230:19	357:19	object [66] 208:11
minutes [3] 235:12	multifarious [2] 209:14 264:5	231:10 241:7 246:21	noticed [1] 352:12	208:13 208:20 209:12
298:1 350:16	Murray [1] 229:7	247:8 356:19	notwithstanding [1] 433:8	210:1 210:8 222:9
misheard [1] 225:2	Murray's [1] 240:14	next [37] 214:5 215:1	November [15] 270:20	222:10 222:16 222:20
misleading [1] 434:16	must [5] 252:20 306:10	216:2 218:12 220:13	275:7 277:3 277:5	223:12 223:19 224:4
mispronounce [1] 429:17	392:9 423:18 433:2	221:15 222:9 229:12	277:12 329:14 351:12	228:4 228:7 228:12
missed [1] 392:9	N [1] 201:1	229:20 230:18 231:16	351:15 359:11 361:7	229:9 232:19 233:8
Missouri [2] 329:12	name [8] 201:9 215:10	238:20 251:5 254:18	361:12 361:21 389:4	242:4 244:8 249:10
330:9	261:14 305:2 327:5	259:2 264:12 267:7	397:3 403:18	252:7 253:17 254:16
misstate [1] 292:3	327:5 351:9 429:17	267:10 271:11 297:21	now [21] 216:19 263:8	265:13 266:5 271:17
misstatement [1] 292:2	named [8] 213:16	306:19 307:1 307:5	275:13 297:17 311:1	272:15 285:7 286:8
misstates [4] 266:16	223:1 241:11 247:2	318:3 324:14 325:19	336:14 357:10 366:16	286:17 296:5 296:7
271:20 432:10 435:19	282:12 308:21 338:5	327:17 328:4 329:7	381:5 384:10 397:2	296:18 296:20 298:10
misunderstood [1] 397:9	419:14	338:10 339:9 343:20	398:1 398:18 403:2	299:5 299:7 301:15
mitigation [1] 230:16	names [2] 327:4	345:21 355:11 363:12	404:11 406:6 407:11	302:17 302:21 306:7
mix [1] 341:4	naphthalene [1] 232:16	380:10 386:13	410:5 413:14 418:4	307:12 309:3 310:12
mixed [1] 349:2	narrative [1] 222:11	nicc [2] 249:18 360:6	426:8	312:6 312:12 314:3
mixers [1] 221:7	narrows [1] 395:20	NIOSH [1] 342:14	Nucon [3] 322:16	317:6 321:2 321:12
models [1] 368:18	Nasclow [1] 445:16	No. [2] 199:4 199:8	322:20 322:20	324:2 325:15 330:3
modern [4] 261:5	National [20] 230:19	nobody's [1] 380:13	number [102] 204:18	348:9 349:7 350:2
261:12 265:19 437:9	230:19 231:5 231:10	noise [1] 329:1	206:13 207:9 210:11	376:15 410:1 421:4
molded [1] 425:13	231:13 232:8 241:4	nonasbestos [2] 340:19	210:14 211:21 212:2	421:11 432:9 434:15
molding [2] 214:8	241:7 241:14 241:17	341:11	212:9 212:21 213:4	435:18 440:1
224:14	246:21 246:21 247:8	none [6] 281:4 292:8	213:13 215:1 215:9	objecting [1] 234:15
moment [1] 331:18	247:21 342:12 343:1	408:11 432:21 434:20	216:9 216:16 217:4	objection [86] 210:20
monitoring [1] 424:17	356:17 356:18 356:20	437:16	218:13 219:5 222:5	224:12 225:5 225:14
monographs [5] 384:13	408:19	nonresponsive [24] 208:13 222:10 225:14	222:19 227:9 227:10	226:1 226:15 227:1
385:20 386:16 392:13	nature [18] 232:20	229:10 230:17 232:20	227:11 228:13 228:15	229:17 230:17 231:4
395:7	358:16 360:14 360:20	233:8 245:3 247:18	239:19 239:20 240:6	234:2 235:3 235:5
Montague [2] 229:7	362:3 362:11 363:14	252:9 253:18 255:20	243:18 243:19 245:14	236:2 237:6 237:17
240:14	363:20 364:7 364:13	263:19 273:14 293:4	245:15 245:16 251:1	242:16 245:3 245:7
month [1] 263:7	364:19 365:4 367:3	295:5 297:7 306:1	251:3 251:13 251:14	246:1 247:18 248:2
months [2] 233:15	384:14 386:17 388:15	308:15 318:2 410:2	251:15 252:15 252:20	255:20 257:15 258:21
424:18	392:14 410:2	425:17 440:2 440:4	255:18 256:2 259:14	259:20 263:19 264:5
Montreal [1] 313:14	near [1] 400:14	nonresponsiveness [1] 294:2	268:2 269:11 271:18	266:15 266:21 272:8
morbidity [1] 442:5	nearly [1] 246:5	nor [5] 223:3 304:11	281:3 281:8 297:17	273:14 273:20 275:3
Morgan [8] 212:10	necessary [3] 247:17	443:13 443:13 443:14	297:18 300:8 300:11	276:18 277:18 280:8
213:1 214:6 216:10	248:6 440:14	Norman [1] 328:12	306:16 308:9 316:17	286:14 287:19 288:9
444:14 444:15 444:18	need [19] 205:10	North [10] 271:15	318:15 321:15 325:7	292:18 293:4 293:20
445:7	222:9 222:16 232:19	272:14 273:1 277:10	325:8 331:1 340:17	293:21 294:1 295:5
morning [6] 202:3	235:7 243:3 243:12	277:16 316:18 317:2	341:9 351:4 355:16	295:13 295:18 297:7
202:4 236:15 298:2	246:13 276:2 278:10	317:13 329:13 431:14	358:14 360:13 362:2	298:7 298:16 299:17
352:9 357:4	282:19 299:21 334:18	Norway [1] 304:12	363:12 364:2 370:3	303:16 306:4 308:14
Morrissey [1] 282:12	339:1 339:2 359:18	Notary [2] 199:17	370:5 373:17 374:21	310:14 310:15 310:18
mortal [1] 427:14	366:17 435:6 435:7	443:3	382:1 383:5 383:16	314:15 315:5 317:5
mortality [3] 319:2	needed [1] 266:10	notation [2] 307:19	383:18 383:20 384:1	318:2 319:14 321:4
415:9 442:3	Neeld [1] 287:13	343:20	384:6 384:13 385:11	322:10 327:14 327:18
most [13] 262:7	Neeld's [1] 288:7	note [9] 218:14 219:6	385:19 386:14 386:16	328:19 329:6 332:12
262:11 263:1 271:9	negligent [3] 348:6	219:13 220:12 297:19	387:11 387:13 388:2	332:21 333:8 333:16
271:9 274:17 389:16	350:1 350:9	318:13 368:7 387:2	388:14 390:2 390:7	336:18 337:5 341:2
398:5 418:18 420:20	Nelson [1] 444:17	444:18	390:12 391:8 392:10	341:13 343:14 344:20
424:4 424:6 442:4	Nemours [2] 199:3	noted [2] 239:15	395:6 396:15 410:5	345:12 345:13 348:16
mostly [1] 244:16	200:16	324:18	410:5 410:9 412:18	349:14 390:21 425:17
motion [1] 236:12	nervous [1] 380:8	notes [11] 204:21	413:2 425:1	437:6
Mount [1] 318:20	never [9] 205:7	205:9 206:9 285:18	numbered [2] 219:5	objections [9] 291:15
move [7] 254:16	271:21 272:5 292:16	285:19 362:2 362:10	220:13	294:18 295:12 295:13
254:17 305:21 329:6	375:8 377:3 377:13	362:16 363:13 363:19	numbering [1] 334:15	296:21 297:20 298:9
	380:6 409:18	364:3	numbers [7] 211:5	299:20 422:11
	new [12] 217:16 267:16	nothing [16] 201:20	240:3 281:18 281:20	observations [2] 364:9 388:16
	270:3 309:14 317:1	266:12 267:6 267:7	285:9 413:4 438:3	observe [4] 224:6
		324:4 324:5 364:1	numerous [6] 244:12	224:13 224:17 225:15
		364:15 365:6 365:9	252:3 293:16 314:8	obsolete [1] 276:7
			377:14 377:21	obtain [2] 391:4
			nylon [9] 215:16	428:10
			271:9 271:16 271:16	obvious [1] 342:3
			271:21 272:2 272:3	obviously [4] 336:20

387:3 389:12 434:20	294:2 295:17 297:17	330:12 355:20	P-r-c-p-a-r-a-k-o-t-e	past [6] 293:11 298:6
occasion [1] 202:8	299:12 309:17 310:3	opposed [4] 253:20	(1) 213:20	319:8 320:14 327:11
occasions [2] 256:2	313:17 315:18 316:20	291:21 397:16 401:5	p.m [18] 297:16 300:4	342:2
375:7	316:21 319:6 321:16	option [1] 317:21	300:5 300:7 326:4	paste [1] 212:7
occupation [2] 242:14	321:17 323:6 325:5	order [7] 202:9 217:13	326:7 326:8 326:9	pathologist [1] 304:3
255:9	327:7 336:19 339:5	248:6 359:16 366:8	335:8 335:11 350:19	pathology [2] 240:12
occupational [36]	341:20 346:6 353:5	393:17 425:6	351:1 351:2 351:5	254:20
242:19 245:5 245:12	353:20 357:18 357:18	ordered [3] 279:11	410:3 410:9 442:18	pattern [1] 417:7
246:4 246:15 248:7	357:21 358:12 358:13	279:21 391:16	442:19	pause [5] 205:15
250:16 258:17 261:5	363:3 365:16 371:13	ordinary [2] 238:16	pace [1] 337:11	211:3 323:7 331:19
261:12 265:19 269:17	373:3 379:13 383:13	349:5	page [29] 207:10	342:8
288:11 290:5 293:3	392:9 394:1 399:2	organization [7]	212:5 236:17 247:5	pay [1] 398:6
297:4 304:5 307:3	399:8 408:6 409:7	231:3 293:2 314:12	251:16 252:17 259:15	payable [1] 316:16
308:5 308:8 309:11	413:2 416:2 433:21	314:14 375:2 375:20	259:21 260:10 267:6	pending [1] 236:12
315:13 317:15 318:1	one-month [1] 437:10	390:14	281:18 281:20 285:9	Penn [1] 200:6
324:18 342:13 343:2	one-page [2] 299:15	organizations [3]	287:6 299:12 299:16	Pennsylvania [2]
344:8 399:13 401:4	305:18	376:19 412:8 412:9	303:21 309:21 316:14	200:7 307:2
401:14 401:19 401:19	one-paragraph [1]	organized [1] 206:8	321:17 322:18 322:18	people [52] 231:6
430:11 433:7 437:9	249:18	original [3] 249:14	340:15 352:2 352:6	232:2 232:6 249:1
occupationally [2]	ones [6] 269:4 309:14	originally [3] 255:2	355:11 444:5 444:10	257:3 257:21 262:4
288:18 436:1	349:1 358:19 389:20	376:18 377:6	445:4	263:8 276:15 292:5
occur [7] 256:3	389:21	originally [3] 255:2	pages [7] 217:4	297:3 303:6 310:9
262:20 262:21 283:8	onset [1] 269:14	404:13 428:11	246:5 299:13 334:14	319:2 325:9 337:15
291:9 294:11 296:3	onto [1] 334:15	originals [1] 376:10	418:20 419:14 420:6	344:21 405:13 413:3
occurred [9] 213:11	oops [1] 340:9	originated [1] 342:14	paint [2] 216:19 222:1	413:4 413:6 413:15
263:9 295:3 315:7	open [4] 320:5 320:9	OSHA [26] 213:17	paints [1] 217:1	416:12 417:9 417:21
320:8 379:7 379:8	320:21 322:11	214:2 325:1 325:6	panhandler [1] 426:15	424:16 424:20 425:19
379:9 413:17	operating [1] 373:19	328:18 329:4 332:3	paper [8] 242:7	425:21 430:14 430:15
October [2] 337:8	operation [2] 336:4	332:8 332:10 332:15	242:10 309:7 309:20	430:16 432:1 432:4
358:1	373:20	333:11 333:14 336:3	310:6 312:16 312:17	432:17 433:2 433:3
off [22] 235:14 235:16	operations [6] 279:20	336:16 338:19 338:21	383:3	433:5 433:8 433:11
249:21 250:2 250:4	332:6 332:16 333:6	339:6 339:8 344:9	papers [5] 242:1	433:12 435:5 438:10
297:15 326:1 326:3	414:2 415:21	344:18 345:10 345:15	304:10 309:10 309:17	438:11 438:19 439:8
326:5 334:17 334:18	operators [1] 221:6	424:14 425:2 425:9	388:7	439:18 441:7 441:15
335:6 335:9 335:10	opinion [46] 234:14	427:12	paragraph [2] 244:20	441:18 442:1 442:6
345:9 345:17 350:18	235:6 245:19 265:17	OSHA's [1] 338:19	249:17	people's [1] 405:12
350:20 367:10 410:4	266:10 268:9 268:20	otherwise [1] 409:20	pardon [2] 282:3	per [5] 214:1 214:3
410:6 440:17	269:2 288:4 291:6	ought [2] 234:13	299:12	219:1 322:21 343:16
offer [4] 222:18 234:5	291:10 291:13 291:15	440:17	parentheses [2] 332:7	percent [5] 269:18
234:7 440:20	291:18 294:7 294:12	ounce [1] 219:1	344:7	290:4 303:5 389:11
offered [6] 209:19	295:1 295:6 295:8	outcome [1] 443:15	part [19] 227:16 233:9	397:11
212:3 213:5 236:9	295:14 295:19 296:9	227:9 227:21 243:21	245:9 252:9 253:18	percentage [2] 397:18
403:14 403:15	296:13 297:2 317:8	246:16 250:13 254:18	287:21 299:9 321:18	398:2
offering [2] 424:4	341:8 348:3 348:12	262:10 267:10 268:3	323:20 355:15 359:5	percentages [1] 442:1
424:7	348:15 348:20 349:9	284:2 284:11 287:8	405:8 406:6 414:21	perform [3] 383:18
office [6] 266:1	349:10 349:11 349:21	301:21 304:15 306:19	418:18 420:20 424:11	394:14 404:13
335:1 335:1 337:20	350:7 381:2 392:6	311:3 312:2 323:8	425:19 440:10	performed [4] 279:4
354:21 369:17	411:3 411:15 412:10	325:20 328:4 338:10	part-time [1] 275:19	364:13 364:16 373:15
officers [1] 435:4	421:1 421:8 434:1	340:16 342:1 343:21	Particle [1] 444:14	perhaps [3] 209:9
Offices [1] 199:15	434:10 436:18 436:18	347:12 444:11 445:18	particles [2] 306:10	252:20 381:10
official [2] 241:13	opinions [37] 211:17	outlines [1] 364:3	399:3	period [6] 221:9
287:3	228:6 228:7 228:16	outside [3] 274:14	particular [21] 203:14	327:11 383:2 405:3
often [1] 429:3	228:18 236:5 236:5	317:8 354:5	209:20 220:12 231:12	417:19 431:7
oil [1] 259:10	236:6 238:14 240:9	overbroad [2] 292:14	236:21 242:7 245:20	periodic [3] 247:16
old [4] 256:5 341:3	262:13 291:21 293:5	296:19	248:19 251:19 256:20	260:18 261:2
372:18 393:10	293:8 294:20 296:21	overlap [1] 395:2	256:20 304:19 309:13	periodically [1] 424:19
once [3] 320:13 341:11	301:6 360:15 360:21	overrode [1] 310:18	324:17 325:13 337:8	periods [1] 416:7
367:4	361:3 361:5 361:7	Owens-Corning [2]	338:13 373:12 394:1	person [6] 223:4
one [74] 205:10 205:14	384:17 386:20 387:4	258:12 408:18	400:20 435:8	287:14 434:11 435:14
209:18 212:7 212:7	387:5 387:7 387:14	own [8] 274:13 285:18	particularly [4] 263:13	435:17 435:21
212:17 213:4 218:4	392:3 392:17 396:17	311:5 311:8 355:7	264:3 290:2 314:13	personal [2] 261:9
218:12 219:1 220:13	406:7 409:9 411:11	360:7 366:11 426:2	particulates [1] 399:1	360:7
232:16 237:21 244:20	427:17 429:20 436:16	oxide [1] 405:11	parties [3] 311:14	personally [2] 255:21
245:16 249:17 249:17	opportunities [1] 257:5	P [2] 201:1 327:5	443:13 443:14	443:5
250:1 250:15 253:14	opportunity [14] 208:15 231:6 236:20	P-f-l-a-u-m-c-r [1] 327:4	parts [2] 208:14 213:6	personnel [1] 272:19
253:15 256:8 257:1	239:5 256:13 264:1		party [2] 201:12 282:7	persons [11] 268:16
257:10 263:7 271:18	264:15 265:5 272:9		pass [1] 350:13	269:11 270:11 276:14
273:11 273:16 274:4	273:3 323:9 326:12		passed [1] 303:9	
274:14 281:13 281:15				

289:16 290:4 362:5 413:17 414:18 415:17 416:6	Plate [2] 304:19 305:14 played [1] 416:16 playing [1] 438:4 Plaza [1] 200:6 pleased [1] 378:9 pleural [1] 263:3 plumber [1] 441:9 pneumoconioses [3] 304:1 315:11 315:20 point [13] 236:7 298:6 299:21 309:5 334:5 344:11 346:16 363:3 363:6 376:2 409:15 437:2 439:16 points [1] 213:4 policy [1] 426:6 pollutants [2] 405:10 405:17 pollution [3] 218:15 405:6 405:11 polyesters [2] 215:15 224:1 polyimide [1] 217:12 polymers [2] 220:6 220:11 portion [5] 230:20 308:15 389:3 440:4 442:16 portions [7] 234:6 234:7 236:18 239:6 239:11 262:11 264:15 position [5] 257:7 344:17 347:6 430:3 435:3 positive [1] 277:21 posits [1] 435:10 possession [8] 206:15 251:12 251:18 259:13 292:21 360:4 372:17 381:19 possibility [4] 337:16 338:2 343:4 425:8 possible [15] 216:21 219:14 247:10 247:14 260:13 270:14 274:9 274:18 278:2 307:17 328:17 341:7 343:9 345:9 345:17 possibly [1] 280:15 post-high [1] 399:21 potential [19] 214:19 215:6 215:14 216:21 229:15 242:2 252:12 270:8 271:5 271:15 272:13 272:21 309:5 310:8 324:1 339:20 367:3 371:18 430:17 potentially [1] 230:8 pounds [3] 218:17 225:6 271:8 pour [1] 382:15 power [1] 279:20 practical [2] 243:14 394:18 practice [7] 369:1 380:15 411:13 411:17	411:21 412:12 412:16 precaution [1] 221:13 precautionary [1] 348:8 precautions [1] 325:9 preceded [1] 404:15 predates [1] 277:3 predicate [2] 223:20 291:17 Preparakote [3] 213:19 213:19 224:9 preparation [1] 300:19 prepare [2] 347:2 366:5 prepared [5] 298:6 364:4 369:8 371:6 395:14 presence [1] 207:6 present [11] 200:21 206:21 214:21 252:17 252:18 320:11 320:21 336:6 336:11 340:2 351:11 presentations [1] 270:2 presented [11] 206:13 228:8 242:1 242:7 303:15 309:7 309:17 310:7 396:20 409:15 409:18 presenting [1] 309:19 presumably [2] 344:14 344:15 pretty [1] 388:10 prevalence [1] 303:3 prevalent [1] 263:5 prevalance [1] 442:5 prevent [1] 268:7 preventive [6] 243:3 243:10 246:12 276:6 278:13 306:9 previous [6] 204:9 215:12 294:1 317:18 387:1 398:20 previously [12] 201:19 204:1 291:5 295:11 332:11 336:2 356:12 365:10 368:2 376:8 390:3 427:16 primarily [1] 221:3 primary [3] 232:17 319:16 386:6 primers [2] 221:5 222:2 printouts [1] 385:12 pro [1] 211:13 probabilities [2] 291:11 294:13 probability [1] 348:5 problem [8] 281:6 310:17 326:20 331:8 379:16 383:12 405:7 417:9 problems [5] 231:8 295:3 330:17 331:6 427:12	procedure [2] 201:11 234:6 procedures [2] 219:16 373:20 proceeding [1] 380:2 proceedings [4] 308:12 312:20 313:13 443:11 process [10] 209:11 223:5 320:12 341:6 366:2 367:4 367:5 413:11 416:14 428:21 processes [2] 260:13 413:18 produce [14] 235:2 355:13 355:13 361:8 364:3 380:9 383:11 384:10 390:5 390:9 393:12 394:8 395:6 396:13 produced [33] 203:8 207:3 211:13 233:11 233:14 236:15 239:12 281:15 358:11 358:19 361:2 361:19 362:13 362:14 362:17 365:2 375:6 376:9 376:10 377:1 377:13 377:21 378:18 384:21 385:2 387:17 388:18 393:5 394:3 420:9 431:11 440:7 440:11 produces [1] 243:16 product [26] 203:6 213:19 215:8 219:19 220:1 224:9 256:20 258:5 279:3 310:9 320:8 323:18 329:19 339:21 340:12 341:4 380:12 380:19 381:6 384:15 386:18 392:15 414:13 414:15 438:12 438:18 production [6] 225:4 236:11 362:1 380:5 380:7 413:18 products [73] 207:11 207:14 207:17 208:7 208:10 209:16 211:18 212:3 212:6 213:10 215:19 215:20 216:1 218:20 222:2 222:3 223:9 224:7 225:20 227:6 231:21 242:2 242:6 246:18 248:1 248:5 257:8 257:9 269:3 270:18 276:1 276:17 277:6 283:7 302:13 307:21 310:10 311:5 315:2 320:4 334:6 334:10 338:3 339:13 346:10 347:13 348:7 348:19 349:1 349:2 349:3 349:6 349:13 349:17 350:10 382:7 391:14 408:10 408:11 409:2 416:2 416:2 416:3 420:4 420:12 424:8 424:10 431:2 431:2 433:4 436:8 439:9 439:12	professional [7] 386:3 395:10 395:15 396:6 397:5 412:6 429:4 professionally [1] 382:8 Professor [1] 305:7 program [4] 346:9 346:17 346:21 347:5 project [2] 203:20 301:10 prolonged [1] 416:7 prominent [1] 318:9 prominently [1] 231:15 pronounced [2] 264:18 264:20 proof [3] 222:18 228:6 292:13 proper [3] 203:3 234:6 291:17 proposed [1] 425:15 protect [2] 248:7 283:1 protected [2] 284:9 297:5 protecting [1] 380:13 protection [13] 247:10 278:3 278:5 278:5 278:8 278:15 278:17 279:10 279:15 284:5 289:4 343:12 382:20 protective [6] 243:8 260:8 276:3 276:6 277:15 290:19 protocol [2] 373:12 388:3 protocols [1] 373:5 prove [3] 393:19 435:6 435:7 proved [2] 409:19 429:1 provide [7] 203:15 207:2 228:16 291:16 301:6 349:18 355:20 provided [21] 204:13 206:20 231:6 256:9 260:17 289:4 291:5 294:5 322:17 323:1 325:12 325:12 333:21 362:7 362:11 368:8 368:9 372:7 380:17 391:2 432:13 providing [1] 411:3 provision [1] 247:15 provisions [1] 316:15 public [10] 199:17 319:7 371:18 382:20 399:17 400:7 401:16 402:7 405:5 443:3 publication [25] 232:12 238:21 239:6 242:18 245:5 246:20 250:12 251:5 251:19 251:20 254:4 254:8 259:3 260:7 262:12 263:14 302:9 303:2
---	--	---	---	---

309:8 315:11 315:18 316:4 316:11 396:10 396:10	338:14 radiator [4] 215:7 219:3 221:4 222:1	300:3 326:6 326:8 350:21 351:2	310:8 310:21 311:3 313:3 318:3 318:18 318:19 325:19 329:11 329:15 330:5 331:15 337:7 340:18 341:18 347:10 383:16 384:20 386:4 406:20 418:1 418:4 420:16	338:20 339:1 382:6 382:10 391:13 423:8 424:12 427:13
publications [11] 231:9 303:17 304:5 304:7 315:13 372:3 372:9 395:12 406:15 406:20 438:17	raise [1] 201:15 raised [7] 219:2 220:20 274:14 299:21 391:20 399:7 407:8 raising [1] 266:8 ranges [1] 383:17 rate [3] 254:12 269:18 319:9 rather [5] 208:1 255:14 304:6 341:16 424:3	recipient [1] 327:8 recite [2] 240:3 288:14 reciting [1] 252:15 recognition [3] 229:2 229:6 246:14 recognize [1] 351:19 recognized [7] 207:20 208:4 258:17 288:12 307:2 317:16 400:20 recognizing [2] 298:11 383:1	referenced [16] 219:20 242:10 250:12 298:20 299:2 318:10 319:3 324:14 328:4 329:8 345:21 385:3 385:5 385:8 389:2 394:5 references [16] 236:16 244:12 253:14 268:2 284:11 298:18 306:5 309:20 314:7 314:9 316:12 319:7 374:5 419:13 419:18 419:21 referencing [1] 252:16 referred [11] 359:2 359:12 359:16 360:12 386:7 389:15 393:1 393:3 415:15 417:14 429:16	regulations [10] 271:14 272:12 272:20 333:15 333:18 333:20 344:13 424:14 425:7 425:9 regulators [1] 344:18 reincorporate [1] 295:13 reinforced [2] 213:5 216:11 Reinhardt [4] 216:17 444:16 445:8 445:9 reiterate [2] 231:1 294:15 relate [5] 297:1 364:8 382:12 382:18 388:15
pulled [1] 279:6 pulmonary [1] 276:9 pure [1] 392:5 purely [2] 426:14 427:10 purging [1] 376:13 purport [1] 222:21 purposes [3] 236:1 262:12 381:15 purview [1] 225:21 put [18] 210:5 250:18 300:21 334:9 350:9 367:10 371:15 375:13 379:4 383:8 385:9 386:9 393:17 408:9 409:1 422:17 435:11 440:17	reach [2] 238:3 306:10 reached [1] 258:8 reaching [2] 305:10 387:14 react [1] 320:19 reacted [1] 321:10 reaction [1] 288:5 read [12] 231:9 236:4 251:2 287:2 309:10 327:13 361:11 405:9 408:1 422:21 428:9 428:17 readers [1] 248:4 readily [1] 377:18 reading [9] 280:14 285:10 405:16 406:12 407:4 407:5 407:6 409:11 428:21 ready [1] 352:21 real [1] 378:7 really [9] 262:14 281:6 343:6 387:6 405:18 425:19 431:9 438:6 439:4 reask [1] 265:1 reason [4] 283:10 354:6 358:3 393:9 reasonable [5] 291:11 292:10 294:13 348:4 348:4 reasonably [1] 292:21 reasons [2] 296:8 426:13 receipt [8] 242:14 245:4 245:20 249:8 251:18 298:19 312:3 312:4	recommend [5] 277:5 322:16 322:20 340:3 343:15 recommendation [3] 268:6 270:7 339:12 recommendations [1] 268:14 recommended [4] 247:11 260:18 268:17 284:19 recommending [1] 280:7 record [49] 204:16 207:1 209:8 228:4 235:14 235:16 235:21 236:1 236:14 237:17 239:10 250:1 250:3 250:4 250:9 251:2 252:19 261:8 297:16 297:20 299:9 300:6 305:20 306:15 310:19 313:4 318:14 326:1 326:4 326:5 326:10 334:17 334:19 335:6 335:9 335:10 335:12 350:19 350:20 351:6 353:18 354:19 370:8 387:3 391:21 410:4 410:6 410:8 443:11 recorded [4] 285:14 301:21 332:15 443:10 records [3] 368:5 387:18 406:9 recovered [1] 320:5 reduce [2] 278:21 280:6 reduction [1] 343:17 reductions [2] 283:6 283:12 redundant [1] 386:21 refer [5] 278:10 344:6 359:5 414:18 420:11 reference [57] 207:10 213:16 217:8 218:19 219:9 220:19 229:5 233:9 237:10 242:5 243:4 243:6 247:2 248:8 253:12 254:18 259:2 259:19 260:11 263:3 264:12 267:10 271:11 275:6 277:20 284:21 287:7 287:8 287:12 303:10 303:18 304:15 305:9 308:16	referring [13] 210:5 229:6 285:17 305:1 319:16 321:5 330:1 330:2 337:2 359:13 387:4 407:13 414:8 refers [3] 254:19 312:19 410:18 reflect [5] 362:4 364:8 387:13 388:15 392:2 reflected [3] 229:3 384:11 433:17 reflects [2] 317:12 439:17 reform [1] 290:19 Refractories [11] 200:8 200:12 305:16 320:3 328:14 330:13 331:5 331:13 331:17 331:21 338:6 refractory [1] 302:12 refresh [1] 422:19 refusing [2] 367:12 367:14 regard [6] 212:1 284:7 341:9 348:12 383:16 429:13 regarded [1] 412:15 regarding [17] 273:6 303:2 345:4 360:21 362:5 364:4 364:9 364:14 364:20 365:8 368:6 382:3 388:16 391:10 413:10 417:2 429:6 registered [1] 253:3 regular [10] 212:15 221:9 314:16 436:1 436:11 436:13 437:21 439:3 440:13 441:4 regularly [2] 438:1 438:10 regulation [9] 324:21	related [7] 271:14 272:12 272:20 382:4 391:11 395:17 443:14 relates [4] 236:10 382:16 383:7 383:20 relating [4] 236:8 363:21 382:5 391:12 relation [1] 253:9 relationship [3] 254:3 263:1 413:10 released [1] 284:10 relevant [4] 204:2 205:2 228:1 300:16 relied [7] 311:13 368:19 384:16 386:19 388:7 392:16 429:19 relics [1] 298:17 rely [4] 233:21 234:12 383:17 427:17 relying [1] 396:16 remain [1] 314:19 remainder [1] 360:9 remaining [2] 346:10 347:13 remember [5] 237:16 377:12 398:17 399:6 408:12 Remington [2] 217:19 226:11 removal [2] 203:3 203:4 removing [1] 276:7 rendered [3] 361:3 361:6 361:7 renovation [1] 203:2 repairmen [2] 215:7 219:4 repeatedly [1] 379:9 repetitious [4] 225:5 228:13 231:4 242:4 repetitive [2] 221:9 224:12 rephrase [9] 272:7 280:16 288:2 294:2 312:8 321:3 407:3 421:18 432:5 reply [3] 274:18 345:10
quantifying [1] 439:15 quantitative [1] 438:8 Quebec [1] 313:11 Quest [2] 251:6 252:10 questioned [1] 256:2 questioning [1] 436:15 questions [9] 222:12 237:7 275:20 283:3 296:9 296:9 325:7 397:4 441:1 quickly [1] 322:1 quietly [1] 362:21 quite [8] 243:1 243:1 263:4 333:17 372:6 413:3 413:14 424:13 quote [3] 247:9 285:3 285:5 quoted [1] 306:8 quotes [1] 305:12 quoting [1] 328:15 R [3] 201:1 327:3	reask [1] 265:1 reason [4] 283:10 354:6 358:3 393:9 reasonable [5] 291:11 292:10 294:13 348:4 348:4 reasonably [1] 292:21 reasons [2] 296:8 426:13 receipt [8] 242:14 245:4 245:20 249:8 251:18 298:19 312:3 312:4 receive [1] 284:5 received [15] 244:5 248:12 248:17 249:5 249:13 249:16 328:11 328:11 363:20 366:1 369:16 375:1 382:2 390:13 391:9 recent [1] 375:10 recently [1] 253:7 recess [9] 235:17 235:19 250:5 250:7	recognition [3] 229:2 229:6 246:14 recognize [1] 351:19 recognized [7] 207:20 208:4 258:17 288:12 307:2 317:16 400:20 recognizing [2] 298:11 383:1 recommend [5] 277:5 322:16 322:20 340:3 343:15 recommendation [3] 268:6 270:7 339:12 recommendations [1] 268:14 recommended [4] 247:11 260:18 268:17 284:19 recommending [1] 280:7 record [49] 204:16 207:1 209:8 228:4 235:14 235:16 235:21 236:1 236:14 237:17 239:10 250:1 250:3 250:4 250:9 251:2 252:19 261:8 297:16 297:20 299:9 300:6 305:20 306:15 310:19 313:4 318:14 326:1 326:4 326:5 326:10 334:17 334:19 335:6 335:9 335:10 335:12 350:19 350:20 351:6 353:18 354:19 370:8 387:3 391:21 410:4 410:6 410:8 443:11 recorded [4] 285:14 301:21 332:15 443:10 records [3] 368:5 387:18 406:9 recovered [1] 320:5 reduce [2] 278:21 280:6 reduction [1] 343:17 reductions [2] 283:6 283:12 redundant [1] 386:21 refer [5] 278:10 344:6 359:5 414:18 420:11 reference [57] 207:10 213:16 217:8 218:19 219:9 220:19 229:5 233:9 237:10 242:5 243:4 243:6 247:2 248:8 253:12 254:18 259:2 259:19 260:11 263:3 264:12 267:10 271:11 275:6 277:20 284:21 287:7 287:8 287:12 303:10 303:18 304:15 305:9 308:16	referring [13] 210:5 229:6 285:17 305:1 319:16 321:5 330:1 330:2 337:2 359:13 387:4 407:13 414:8 refers [3] 254:19 312:19 410:18 reflect [5] 362:4 364:8 387:13 388:15 392:2 reflected [3] 229:3 384:11 433:17 reflects [2] 317:12 439:17 reform [1] 290:19 Refractories [11] 200:8 200:12 305:16 320:3 328:14 330:13 331:5 331:13 331:17 331:21 338:6 refractory [1] 302:12 refresh [1] 422:19 refusing [2] 367:12 367:14 regard [6] 212:1 284:7 341:9 348:12 383:16 429:13 regarded [1] 412:15 regarding [17] 273:6 303:2 345:4 360:21 362:5 364:4 364:9 364:14 364:20 365:8 368:6 382:3 388:16 391:10 413:10 417:2 429:6 registered [1] 253:3 regular [10] 212:15 221:9 314:16 436:1 436:11 436:13 437:21 439:3 440:13 441:4 regularly [2] 438:1 438:10 regulation [9] 324:21	regulations [10] 271:14 272:12 272:20 333:15 333:18 333:20 344:13 424:14 425:7 425:9 regulators [1] 344:18 reincorporate [1] 295:13 reinforced [2] 213:5 216:11 Reinhardt [4] 216:17 444:16 445:8 445:9 reiterate [2] 231:1 294:15 relate [5] 297:1 364:8 382:12 382:18 388:15 related [7] 271:14 272:12 272:20 382:4 391:11 395:17 443:14 relates [4] 236:10 382:16 383:7 383:20 relating [4] 236:8 363:21 382:5 391:12 relation [1] 253:9 relationship [3] 254:3 263:1 413:10 released [1] 284:10 relevant [4] 204:2 205:2 228:1 300:16 relied [7] 311:13 368:19 384:16 386:19 388:7 392:16 429:19 relics [1] 298:17 rely [4] 233:21 234:12 383:17 427:17 relying [1] 396:16 remain [1] 314:19 remainder [1] 360:9 remaining [2] 346:10 347:13 remember [5] 237:16 377:12 398:17 399:6 408:12 Remington [2] 217:19 226:11 removal [2] 203:3 203:4 removing [1] 276:7 rendered [3] 361:3 361:6 361:7 renovation [1] 203:2 repairmen [2] 215:7 219:4 repeatedly [1] 379:9 repetitious [4] 225:5 228:13 231:4 242:4 repetitive [2] 221:9 224:12 rephrase [9] 272:7 280:16 288:2 294:2 312:8 321:3 407:3 421:18 432:5 reply [3] 274:18 345:10

345:18	resolving [1]	317:20	360:8	392:21	436:2	rip-out [1]	270:20	Saranac [4]	255:6
report [21]	resort [1]	333:18	440:7			risk [16]	248:7	255:16	256:16
253:4	respect [48]	203:13	reviewed [18]	211:16		264:4	269:4	269:5	309:13
260:6	203:13	203:21	236:18	236:19	271:12	269:8	270:4	270:18	save [1]
269:10	222:21	231:16	272:20	276:14	286:2	276:17	293:2	309:5	saw [8]
87:17	252:12	259:2	290:1	293:6	293:7	310:8	343:8	416:18	256:4
305:1	265:11	268:7	294:7	328:3	349:20	433:7	438:13		257:3
321:10	278:2	287:14	357:10	384:16	386:19	risks [3]	366:13	417:2	279:19
330:8	296:13	301:12	392:16	419:5		427:14			279:20
reported [12]	312:10	320:11	reviewing [6]	219:15		riveter [1]	441:8		354:7
213:21	338:18	343:21	225:15	245:12	278:19	Road [1]	199:19		363:8
257:12	363:14	364:18	297:10	327:16		Robert [2]	239:3		426:19
413:16	373:20	379:21	reviews [1]	322:11		259:7			sawing [3]
414:12	396:5	404:11	Rex [1]	380:3		Robertson [3]	299:14		212:16
reporter [4]	404:18	412:11	Richard [2]	215:2		331:21	332:2		276:7
235:11	424:10	426:7	445:6			role [1]	416:17		278:1
Reporting [2]	429:20	431:12	ridiculous [1]	235:4		rollboard [3]	322:17		saws [1]
201:9	433:21	434:18	right [162]	201:16		323:2	323:15		277:21
reports [19]	439:21	440:5	205:19	207:1	207:9	roof [3]	209:18	212:6	Sayers [1]
244:16	respects [1]	204:6	210:19	211:6	211:9	322:12			304:10
257:20	respirator [2]	221:12	216:6	218:8	218:13	roofer [1]	274:11		says [39]
260:4	279:12		220:9	223:7	225:9	roofers [1]	274:21		207:11
364:3	respirators [11]	247:14	227:11	228:10	228:21	roofing [1]	224:7		234:4
385:20	260:16	268:7	229:8	230:2	234:17	roofs [3]	320:5	322:16	252:16
395:7	332:8	332:20	235:13	236:13	239:5	322:21			260:17
representation [2]	333:12	333:14	239:9	239:14	239:17	room [4]	299:1	353:19	263:7
361:18	333:21		241:1	241:12	243:20	354:5	355:2		265:15
represented [4]	respiratory [6]	278:3	245:18	248:8	249:3	routines [1]	260:14		267:6
282:12	278:4	278:16	249:13	249:21	251:4	rules [3]	201:11	298:12	267:8
representing [3]	279:15	399:3	253:16	254:15	254:17	298:15			274:16
351:10	responding [2]	282:21	257:6	258:20	259:11	run [3]	212:12	212:14	277:20
represents [4]	345:15		260:21	261:4	262:18	396:11			279:11
375:20	responds [1]	385:18	264:12	267:9	268:11	running [1]	425:8		283:13
reputation [4]	response [15]	266:3	271:11	273:9	273:18	S [2]	201:1	299:14	306:9
411:17	266:13	267:2	275:14	277:3	277:4	S-1 [1]	221:11		309:21
request [21]	277:11	278:7	278:18	282:16	283:9	Sabourin [2]	313:10		325:5
272:17	293:13	322:9	283:18	284:1	284:11	313:10			328:10
312:3	331:12	331:20	284:21	285:20	287:7	sacks [1]	340:12		329:19
331:12	412:17	441:5	297:8	297:14	300:2	sacs [2]	305:10	306:11	332:5
370:1	responses [2]	308:2	300:18	301:18	306:18	safe [3]	311:19	343:4	336:5
371:16	311:13		307:5	307:19	308:4	343:10			336:8
373:1	responsible [1]	257:7	308:18	313:6	316:7	safer [3]	324:13	337:16	337:10
390:19	responsive [5]	364:15	319:10	319:17	320:10	350:11			339:2
requested [3]	365:9	371:20	320:16	321:7	321:15	safety [33]	230:19	230:19	339:21
375:8	385:18	373:6	323:3	324:10	324:14	230:19	231:5	231:8	400:7
requesting [1]	rest [1]	378:8	325:11	329:7	331:11	231:9	231:10	231:13	400:13
requests [1]	restate [7]	237:6	334:12	336:21	338:9	241:4	241:7	241:14	400:15
require [1]	237:21	266:17	339:9	340:4	340:15	241:17	241:21	246:21	400:19
required [5]	237:21	266:17	341:21	343:20	344:2	247:1	247:8	247:21	400:20
279:17	310:13	421:6	345:20	345:21	347:10	264:13	265:6	276:6	401:11
423:7	331:12	331:20	347:20	350:13	353:11	286:1	286:14	311:19	401:13
requirements [2]	restricted [1]	347:4	353:16	356:2	356:15	315:1	319:20	324:19	402:12
366:13	result [5]	267:5	357:5	357:7	357:9	337:11	342:13	343:2	402:15
research [22]	271:5	289:18	358:8	359:1	359:7	344:9	356:17	356:18	403:4
232:12	441:19		363:11	363:17	364:2	356:20	425:20		403:5
256:12	Resulting [1]	205:4	364:12	364:16	365:3	sale [1]	340:11		science [2]
311:11	results [5]	257:12	365:14	366:16	368:7	sales [2]	347:13	349:17	417:3
314:1	257:18	258:4	368:10	368:14	369:3	sales/distribution [1]	307:20		233:2
319:1	385:12		369:6	369:7	371:3	307:20			238:5
338:16	resume [3]	235:12	372:19	373:2	374:13	samples [2]	213:21		244:18
373:8	371:12	442:14	375:15	376:12	381:8	320:4			263:17
404:18	return [1]	377:4	381:17	381:20	381:21	San [1]	393:10		291:11
researching [1]	review [29]	202:8	384:6	387:10	389:10	sanding [2]	213:18		294:13
reservations [1]	203:7	208:16	390:1	392:11	393:13	213:21			348:2
298:9	227:14	238:2	396:14	396:18	397:21	Sarah [1]	200:19		348:4
serve [1]	239:6	256:13	400:18	403:13	407:20				386:2
341:15	264:15	265:5	413:20	414:11	418:3				386:17
reserved [1]	273:3	299:1	418:16	419:15	419:17				395:10
resins [2]	273:3	299:1	423:3	423:5	424:2				395:15
224:14	301:4	313:8	426:8	427:19	428:6				429:6
	321:8	323:9	428:15	428:18	430:13				429:9
	327:9	330:12	430:21	434:6					430:6

scalants [1]	224:18	345:16 422:6	354:4 425:10 427:2	small [2]	290:10	specifically [14]	236:7 241:19 253:18
scaler [2]	218:20	sentences [1]	319:6	showing [3]	320:18	236:6 264:10 265:9	264:6 264:10 265:9
225:7		separate [3]	330:1	438:18 442:5		275:15 286:13 292:16	275:15 286:13 292:16
search [3]	339:19	382:17 419:1		shown [3]	362:4	335:15 369:20 385:17	335:15 369:20 385:17
367:1 393:16		September [3]	216:16	362:16 438:9		398:5 402:2	398:5 402:2
searches [1]	385:13	318:8 356:19		sick [1]	435:9	specify [1]	343:10
second [14]	250:1	sequence [2]	218:12	sides [1]	409:16	speculation [12]	226:1 242:17 244:9
250:14 250:18 279:8		359:8		signed [2]	223:3	245:9 246:2 248:3	245:9 246:2 248:3
298:17 299:16 323:6		series [2]	310:3	309:2		249:12 252:8 275:4	249:12 252:8 275:4
326:1 334:18 349:15		351:19		significance [24]		276:20 287:21 337:6	276:20 287:21 337:6
352:6 355:11 421:14		serious [11]	291:8	207:13 230:2 231:2		speculative [1]	333:9
422:7		294:10 295:9 296:2		240:10 242:13 245:4		speed [2]	339:11
Secondarily [2]	271:20	296:15 433:6 434:4		245:20 247:19 271:2		342:7	
296:20		437:14 437:19 440:15		271:3 284:14 287:18		spent [4]	244:2
secondary [3]	414:5	441:19		288:6 302:12 302:19		358:4 397:6 439:11	358:4 397:6 439:11
416:19 417:2		seriously [3]	432:7	306:20 312:1 312:11		spoke [2]	307:6
seconds [1]	210:20	434:13 435:15		313:7 313:20 314:11		362:21	
section [5]	232:8	served [1]	352:3	315:7 320:1 323:11		sprayed [3]	203:1
243:10 246:9 419:1		service [6]	199:19	significant [15]	208:14	275:21 279:3	
419:9		319:7 351:20 352:3		212:1 227:14 229:12		sprayers [1]	279:14
sections [1]	307:13	366:1 445:19		229:13 251:17 259:16		spraying [3]	276:8
securing [1]	312:17	services [1]	384:3	262:11 275:1 290:4		279:4 279:9	
sec [35]	205:13 209:20	session [1]	300:5	290:17 301:20 324:17		spread [1]	378:2
212:17 222:5 223:15		set [7]	221:16 231:19	329:10 334:3		square [1]	336:15
223:21 237:14 275:10		232:3 232:4 343:16		signs [1]	431:3	stack [2]	297:11 325:21
287:10 304:17 309:12		376:18 443:6		silica [1]	315:2	stamp [4]	210:11
316:4 320:7 321:19		setting [1]	384:2	silicosis [6]	303:18	210:14 216:8 299:16	
322:1 325:12 328:21		several [6]	267:15	305:9 306:10 306:12		stand [1]	254:10
334:19 341:21 342:5		282:2 283:3 316:19		307:7 316:16		standard [8]	286:1
342:7 344:3 347:14		375:7 415:11		similar [2]	293:6	286:15 296:11 297:1	
355:17 355:18 360:11		severalfold [1]	298:7	385:12		329:4 373:19 432:10	
360:12 366:9 366:13		shall [1]	235:12	similarly [4]	289:10	435:19	
366:18 366:21 389:20		shape [1]	382:12	293:1 297:4 299:11		standardization [2]	374:11 374:15
392:7 408:14 415:14		shapes [1]	213:6	simple [1]	424:13	standards [6]	213:17
seeing [3]	263:8	Sharon [4]	199:17	simply [3]	214:18	326:18 330:1 374:3	
391:2 408:12		201:8 443:3 443:19		230:10 244:20		424:15 425:2	
seek [2]	376:2 377:11	sheet [2]	270:13 288:19	Sinai [1]	318:20	standing [1]	439:6
seeking [3]	348:18	sheets [2]	221:15	single [2]	305:18	standpoint [3]	317:3
376:21 399:9		445:17		414:12		410:20 430:14	
seem [2]	337:4 408:11	shells [3]	217:19	situated [2]	289:10	stapling [1]	334:21
selecting [1]	388:7	226:13 226:20		297:4		start [5]	352:15 352:19
self-serving [2]	408:7	shift [1]	297:8	situation [1]	438:7	355:9 438:7 439:15	
412:1		shipped [1]	323:14	situations [3]	346:13	started [13]	324:19
Selikoff [6]	270:2	shipping [2]	408:16	410:17 410:20		346:21 354:3 354:3	
318:20 319:12 319:19		423:12		six [1]	424:18	354:14 354:14 355:9	
416:16 429:5		shipyard [1]	441:9	sixfold [1]	319:9	363:1 400:8 402:10	
Selikoff's [4]	269:10	shipyards [3]	246:19	Sixth [1]	356:11	405:8 405:16 414:14	
290:3 319:1 319:12		247:8 263:10		size [2]	230:7 408:13	starting [7]	230:11
sell [2]	311:4 341:16	shop [3]	279:17 280:1	Skendall [28]	299:14	232:12 240:15 269:20	
selling [2]	339:14	shops [1]	279:5	311:18 312:14 313:9		290:20 359:8 408:10	
348:6		short [5]	302:10	313:16 313:21 315:9		starts [1]	334:14
scalls [1]	208:10	317:20 330:19 441:3		316:8 319:20 325:4		stat [29]	228:16
seminar [2]	386:3	shortly [1]	353:19	325:13 329:14 329:18		236:2 236:3 236:5	
395:11		shorts [2]	330:18	332:1 332:10 332:19		236:14 236:20 278:2	
seminars [2]	395:16	330:19		333:12 335:19 335:21		291:14 291:17 307:1	
396:7		shotgun [3]	217:19	336:15 337:3 337:7		316:20 317:9 338:18	
send [3]	205:17 352:18	226:13 226:20		337:18 342:20 343:21		339:12 344:8 344:9	
394:16		show [14]	336:11	345:6 345:8 345:14		345:8 403:17 410:12	
sending [1]	342:16	352:2 352:7 358:16		Skendall's [2]	314:13	411:5 421:16 427:18	
sense [7]	303:13	358:19 360:14 360:21		331:12		429:6 429:9 429:10	
334:20 367:5 413:12		364:13 364:20 365:4		skeptical [1]	405:6	431:15 433:15 443:1	
426:14 427:7 434:17		387:14 417:7 422:15		skepticism [2]	408:1	443:4	
sent [10]	234:18 244:11	422:18		430:5		statement [19]	214:8
328:13 357:15 358:1		showed [4]	332:6	skip [1]	374:19	221:1 254:10 287:2	
369:18 375:1 382:2				skipped [1]	342:2		
390:13 391:9				skipping [1]	372:2		
sentence [3]	326:19						

296:1 296:12 319:12	322:14 346:18	404:5	Swain [9]	213:16	389:2 390:8 398:20	
324:6 327:2 327:12	strict [1] 336:6	substitution [2] 339:1	214:14 215:3 216:17	398:21 423:20	testifies [3]	284:17
327:19 332:9 336:14	strike [10]	350:11	218:15 444:17 444:20	445:9 445:12	370:9 370:11	201:19
336:15 378:13 410:1	263:21 295:7 295:20	subtitle [1]	315:19	switch [1]	297:16	234:20 235:1 293:17
421:19 424:1 426:6	305:21 325:17 329:6	such [24]	202:14	sworn [7]	201:14	360:15 380:18 406:5
atements [4]	333:8 337:5 343:14	206:20 236:5 247:11	201:16 201:19 223:3	238:17 311:13 443:7	testifying [3]	210:9
286:4 306:13 432:13	strikes [1]	247:13 254:12 268:17	238:17 311:13 443:7	238:17 311:13 443:7	222:17 366:4	222:20
states [15]	strips [2]	291:17 292:13 298:10	306:10 315:18 366:5	314:20	testimony [35]	228:9 228:12 228:13
232:9 244:17 252:4	324:7	371:9 372:4 373:13	375:5 376:8 376:10	314:20	233:6 233:10 233:10	238:9 238:12 238:17
286:20 293:17 315:15	student [1]	387:16 401:5 403:14	416:19 438:11	314:20	248:16 265:6 267:1	277:1 280:10 280:13
316:15 316:17 333:1	studies [15]	sue [1]	317:19	314:20	358:16 358:18 358:20	359:5 361:20 368:2
333:6 342:15 343:6	255:10 255:11 256:18	sued [2]	380:11 381:10	314:20	373:9 383:6 403:18	406:9 411:3 411:4
381:7 411:9	268:18 270:1 283:4	suffer [2]	440:15	314:20	422:14 422:18 432:15	432:16 434:17 437:8
stating [2]	283:5 322:12 384:14	441:18	289:16	314:20	439:19	257:8
285:2	386:17 392:14 442:3	suffering [1]	292:21	314:20	258:4 268:16 276:10	374:8
statistical [1]	442:4 442:5	sufficient [2]	295:2	314:20	tests [9]	217:2 332:5
statistics [2]	study [4]	suggest [1]	341:3	314:20	336:11 364:13 364:16	373:16 373:21 383:18
303:8	240:14 242:10 319:19	suggested [2]	214:9	314:20	383:20	199:1
status [3]	studying [3]	337:10	332:14	314:20	199:5 200:3 200:11	200:15 200:19 201:11
315:10 315:19	406:8 411:8	suggesting [1]	332:14	314:20	298:12 377:3 377:10	379:20 379:20 404:14
statutes [2]	stuff [14]	suggests [2]	324:11	314:20	406:5	230:1 239:2
317:17	368:4 372:20 377:3	435:1	317:21	314:20	239:4 245:21 246:13	247:4 247:9 250:21
stay [3]	377:16 379:14 382:13	suing [1]	317:21	314:20	259:11 259:17 261:1	261:5 261:9 261:11
437:4	382:16 382:17 393:16	suit [1]	203:5	314:20	265:19 265:21	258:15
Steel [5]	401:17 405:19 423:14	suitable [2]	339:3	314:20	259:6 263:11 432:15	420:16
323:14 323:21 346:14	439:7	340:1	200:18	314:20	415:18 415:20	207:6 207:7
Stenographer [1]	style [1]	Suite [2]	200:10 200:18	314:20	Thank [12]	212:20
201:8	282:10	sulfur [1]	405:11	314:20	222:7 237:4 238:19	247:3 262:17 282:16
stenographically [1]	subdivision [1]	summaries [3]	244:21	314:20	342:10 366:3 391:7	397:21 416:15
443:10	subject [6]	302:10 385:11	249:18	314:20	379:15	322:5
step [1]	358:16 358:20 382:9	summarization [1]	210:3	314:20	379:15	208:7
208:8	383:5 404:5	210:3	249:18	314:20	379:15	406:14
STEPHEN [1]	subjected [1]	summary [3]	249:18	314:20	379:15	260:11
199:6	365:12	300:15 444:14	266:12	314:20	379:15	248:21
steps [5]	subjects [1]	superintendent [2]	264:13 265:6	314:20	379:15	442:19
215:18 423:6	submitted [1]	264:13 265:6	266:12	314:20	379:15	404:11
424:9 426:3 426:20	subpoena [9]	supervisor [3]	266:12	314:20	379:15	323:14
reynson [2]	351:21	supervisors [2]	265:11	314:20	379:15	372:10 378:13 402:10
219:6	352:4 353:14 356:6	supervisory [1]	290:17	314:20	379:15	411:10
445:14	357:12 358:10 365:19	supplement [2]	242:18	314:20	379:15	322:11
stickies [1]	366:9 445:20	242:20	279:9	314:20	379:15	420:20
237:2	subpoenad [2]	267:2 267:4	228:18	314:20	379:15	199:16
232:4 320:11	353:13	supervisors [2]	265:11	314:20	379:15	200:10 200:15
336:12 340:15 347:5	subscription [1]	supervisory [1]	290:17	314:20	379:15	201:6 426:15
391:2	249:15	supplement [2]	242:18	314:20	379:15	322:11
stirred [1]	subsequent [1]	supplied [1]	279:9	314:20	379:15	420:20
333:5	406:20	support [1]	228:18	314:20	379:15	420:20
Stock [2]	subsequently [2]	supporting [1]	364:20	314:20	379:15	420:20
338:16	349:19 425:14	suppose [3]	384:19	314:20	379:15	420:20
stocks [4]	substance [2]	410:16 413:13	333:21	314:20	379:15	420:20
341:5 341:10 341:15	360:14	supposed [2]	424:20	314:20	379:15	420:20
Stone [1]	substances [2]	suppression [1]	243:12	314:20	379:15	420:20
304:11	325:2	surface [1]	320:15	314:20	379:15	420:20
stop [7]	325:6	surprise [2]	329:18	314:20	379:15	420:20
215:5 218:21	substantial [12]	surveillance [1]	345:4	314:20	379:15	420:20
221:4 222:1 224:18	270:4	survey [3]	303:2	314:20	379:15	420:20
225:3 225:8	291:7 294:8 296:2	329:12 330:6	328:20	314:20	379:15	420:20
Stopp [24]	296:10 296:14 297:2	surveys [1]	328:20	314:20	379:15	420:20
233:6 236:21 238:10	418:17 434:12 437:15	suspected [2]	243:6	314:20	379:15	420:20
248:15 249:14 267:12	441:18 442:1	246:8	243:6	314:20	379:15	420:20
267:13 267:15 267:18	substantially [10]	surveys [1]	328:20	314:20	379:15	420:20
268:14 268:19 269:10	291:9 294:10 295:8	surveys [1]	328:20	314:20	379:15	420:20
270:1 270:12 270:19	296:3 432:6 434:3	surveys [1]	328:20	314:20	379:15	420:20
271:2 277:1 284:17	435:5 435:13 435:15	surveys [1]	328:20	314:20	379:15	420:20
290:21 291:2 291:3	440:14	surveys [1]	328:20	314:20	379:15	420:20
357:3 432:15	substantive [1]	surveys [1]	328:20	314:20	379:15	420:20
Stopp [6]	298:8	surveys [1]	328:20	314:20	379:15	420:20
268:6 269:2 270:7	substitute [15]	surveys [1]	328:20	314:20	379:15	420:20
284:13 284:15	257:2	surveys [1]	328:20	314:20	379:15	420:20
stopwatch [1]	257:5 324:7 324:13	surveys [1]	328:20	314:20	379:15	420:20
439:6	337:16 339:3 339:20	surveys [1]	328:20	314:20	379:15	420:20
427:20 420:20	340:1 340:19 341:11	surveys [1]	328:20	314:20	379:15	420:20
street [7]	346:9 346:17 347:1	surveys [1]	328:20	314:20	379:15	420:20
200:3 200:10 200:15	347:2 348:18	surveys [1]	328:20	314:20	379:15	420:20
200:18 201:6 426:15	substitutes [2]	surveys [1]	328:20	314:20	379:15	420:20
322:11	346:20	surveys [1]	328:20	314:20	379:15	420:20

thickness [1] 323:4	364:11 371:14 383:14	274:9 339:11 341:16	undergraduates [1] 402:11	276:3 364:20 374:6
thinking [1] 423:16	385:9 440:4	345:9 345:16 382:15	understand [17] 298:21	utilizes [2] 382:6
third [4] 340:15 419:19	took [12] 268:4 278:20	382:16 389:18 421:18	299:2 314:4 361:5	391:13
420:1 420:7	291:8 294:9 295:10	429:3 438:2 440:20	367:13 372:6 373:9	utilizing [2] 268:7
Thomas [2] 282:12	296:4 308:5 313:7	trying [12] 310:19	375:17 392:20 394:4	310:10
444:17	389:4 398:21 425:16	334:6 354:18 361:15	407:1 411:2 411:14	v [2] 199:3 199:7
thoroughly [1] 258:13	430:3	361:17 378:12 378:21	414:20 415:1 420:15	vacuum [1] 279:21
thought [8] 246:10	tools [1] 368:19	422:9 422:10 422:11	430:21	vague [5] 229:19
249:4 352:14 380:9	top [2] 207:10 209:15	426:11 438:8	underway [1] 346:11	286:9 286:19 292:14
406:19 428:1 429:2	topic [3] 264:11 398:14	Tumors [2] 245:6	undetermined [1] 222:2	350:4
440:13	402:2	245:12	uneconomical [1] 337:12	value [3] 243:14
thousand [1] 340:11	topics [2] 399:14	turn [6] 227:8 241:1	United [8] 213:11	332:7 377:15
three [9] 279:17 280:7	402:21	334:2 335:14 337:21	232:9 244:17 252:4	various [31] 202:9
361:19 390:18 393:20	toss [1] 216:14	338:9	333:1 333:6 342:14	206:10 208:10 209:15
394:20 410:5 410:9	total [2] 240:18 252:18	turned [3] 381:11	411:9	212:14 213:11 215:18
437:16	totally [3] 223:6	381:14 381:18	university [1] 384:8	243:1 246:11 261:16
three-page [2] 215:17	343:8 405:20	Turner [1] 301:12	unless [2] 391:16	275:8 290:9 290:9
298:5	touch [1] 241:3	turning [2] 339:9	430:19	293:8 293:17 303:8
three-sixteenths [1] 322:21	touched [2] 202:6	381:10	unreasonably [1] 349:3	303:17 305:12 306:13
Threshold [1] 332:7	246:18	two [28] 200:6 212:6	unrest [1] 333:4	311:14 315:15 320:17
through [26] 211:5	toward [1] 258:16	214:3 216:14 221:15	unsuccessfully [1] 290:18	322:14 347:7 382:12
211:7 211:15 223:6	town [1] 400:16	233:15 253:6 253:9	up [26] 202:5 206:5	405:9 406:12 407:4
226:11 231:13 249:7	toxicity [1] 218:15	273:16 284:18 297:18	206:8 231:19 232:3	410:19 410:19 416:1
251:21 268:5 283:17	toxicology [9] 212:10	297:20 299:12 300:8	232:5 260:14 262:2	varying [1] 416:9
298:8 335:1 351:17	213:2 220:17 230:13	327:4 330:1 334:14	322:4 322:21 324:19	vein [1] 341:1
355:21 358:5 358:9	231:18 232:3 233:1	339:12 346:13 365:16	333:5 334:20 339:11	ventilation [2] 247:15
358:12 363:10 374:19	250:12 413:7	393:19 394:20 399:8	342:7 343:7 354:4	260:12
378:6 378:8 382:15	tract [1] 399:3	402:12 404:4 410:5	395:14 396:9 399:4	verifying [1] 409:5
389:20 395:5 403:4	trade [5] 269:15 318:9	413:2 440:21	410:17 414:11 415:15	versa [1] 310:18
440:19	319:2 408:18 415:4	two-paragraph [1] 244:21	423:17 441:12 441:13	versus [1] 409:21
tighten [1] 262:2	trademark [2] 209:16	tying [1] 292:6	upper [2] 257:20	Vial [1] 200:9
time-weighted [1] 214:4	212:4	type [24] 202:18 237:7	327:4	vice [1] 310:18
timeliness [2] 299:7	trades [15] 269:16	274:7 274:11 279:12	upward [1] 290:3	vicinity [1] 277:17
299:17	270:14 270:16 414:19	279:12 301:10 302:9	urgings [1] 282:21	video [2] 201:10
times [5] 293:15	415:2 415:9 438:20	314:21 348:7 358:15	usage [1] 221:19	370:11
361:13 378:7 398:20	439:17 441:7 441:13	360:13 360:20 362:3	used [31] 208:7	videographer [19] 200:21 201:2 235:14
410:19	441:16 441:20 442:2	362:11 363:13 363:20	217:1 217:10 217:15	235:20 250:2 250:8
tissue [1] 255:11	442:4 442:6	364:7 364:12 364:19	217:18 225:19 226:13	297:15 300:6 326:3
title [3] 303:10 304:18	trained [1] 255:3	365:3 373:12 388:14	271:4 271:8 278:8	326:9 335:5 335:8
315:19	training [1] 368:6	440:12	279:16 297:21 323:19	335:11 350:18 351:5
titled [5] 214:14	Transactions [2] 356:17 356:20	typed [1] 395:14	325:8 333:13 334:7	355:2 410:3 410:7
214:18 216:10 216:19	356:17 356:20	types [6] 293:6	344:19 368:19 369:8	442:16
326:18	transcript [3] 361:12	303:14 307:14 322:13	373:5 373:18 373:19	vidcotaped [4] 199:11
TLV [1] 332:7	398:18 443:10	391:18 441:17	383:17 405:19 408:11	199:12 201:3 442:19
tobacco [1] 430:3	transcripts [1] 377:17	U.S. [4] 319:7 411:16	410:15 415:21 416:14	videotapes [1] 365:7
today [30] 202:5	translation [2] 243:15	416:17 417:1	420:4 425:3 442:8	view [3] 207:18 337:4
209:2 290:1 294:7	429:4	ultimately [1] 289:17	user [1] 414:13	386:21
298:10 298:11 299:18	transmittal [1] 342:20	ultra [1] 279:12	users [8] 215:21 269:3	Vigliani [1] 304:11
351:10 351:14 352:4	treatises [1] 388:6	Um-hmm [2] 266:19	310:9 349:12 414:15	violation [3] 332:15
353:13 354:3 355:19	treatment [1] 401:5	281:11	416:19 417:2 438:19	333:14 344:12
357:12 358:19 359:3	trial [7] 298:12 318:8	unaltered [1] 320:21	uses [5] 207:16 208:9	violations [1] 329:21
363:4 367:5 368:1	358:17 360:16 368:2	unauthenticated [1] 308:16	212:13 218:1 385:14	viral [1] 401:6
389:19 393:3 394:2	370:4 370:11	unclear [2] 387:3	using [11] 310:9	virtually [1] 431:1
394:3 394:9 403:7	trials [3] 346:11 346:19	421:5	322:16 339:7 408:16	visible [1] 241:9
417:19 420:10 432:13	361:14	uncontrolled [1] 405:20	421:2 421:9 421:15	vitae [1] 368:5
440:8 440:11	tried [1] 428:8	under [11] 213:1	422:2 427:9 433:3	VOGLER [54] 200:5
together [2] 250:18	Trip [3] 268:12 269:9	260:10 307:3 315:15	433:5	254:16 258:21 259:20
339:10	270:10	317:16 325:1 325:6	usually [2] 244:20	292:16 293:20 295:15
tolerated [1] 329:4	true [9] 327:13 332:17	333:18 381:5 381:6	341:14	297:19 301:15 302:17
tomorrow [6] 371:11	403:9 407:10 428:16	416:12 422:19 426:18	utilize [7] 236:20	302:21 303:16 305:21
394:11 394:19 440:18	431:19 434:5 436:1	undergraduate [8] 398:8 400:9 400:12	238:17 315:2 340:18	306:7 307:12 308:14
441:2 442:14	443:11	402:1 402:6 402:10	341:4 341:10 374:11	309:3 310:12 310:15
tonight [1] 366:7	truth [5] 201:20 201:20	402:19 403:4	utilized [4] 225:1	312:6 312:12 314:3
tons [2] 221:2 225:2	201:20 406:16 409:21			314:15 315:5 317:5
too [7] 299:4 337:14	try [15] 262:2 271:3			319:14 321:2 321:12

327:14 328:19 329:6	362:17 362:21 366:20	within-named [1]	362:3 362:10 363:13
330:3 332:12 332:21	367:14 367:17 367:21	443:5	363:19 385:12 429:20
333:8 333:16 334:21	368:7 369:17 370:1	without [12] 213:6	439:19
335:4 336:18 337:5	370:4 370:7 370:17	292:6 292:13 328:15	written [15] 247:1
341:2 341:13 343:14	372:14 374:14 374:16	348:7 358:6 369:1	262:15 305:7 346:6
44:20 345:12 348:9	375:16 376:15 380:20	376:10 384:10 398:17	372:4 372:10 372:13
348:16 349:7 349:14	383:14 387:2 387:8	421:15 427:9	374:21 382:1 384:5
350:2 350:15	389:5 389:10 389:11	witness [45] 201:14	386:11 390:12 391:8
Volume [2] 199:10	391:17 391:21 392:9	201:19 204:20 210:2	415:8 427:18
199:12	392:11 392:18 392:21	218:8 219:18 228:5	wrong [1] 309:12
voluntary [6] 424:11	393:7 393:18 393:21	228:7 234:8 235:8	wrote [5] 247:7
426:3 426:14 426:20	394:8 394:16 394:18	235:11 240:5 245:10	258:12 315:14 404:12
427:7 427:10	395:4 395:12 395:17	246:3 261:7 276:20	414:15
W [2] 199:2 200:5	397:8 399:21 406:18	281:21 282:4 282:9	Wuske [1] 338:15
W-e-n-r-i-c-h [2]	407:11 407:17 407:20	282:11 282:15 285:18	X-ray [2] 287:14
346:7 346:7	414:7 415:2 417:11	285:20 288:1 292:8	287:17
W-u-s-k-e [1] 338:15	417:15 421:4 421:7	297:12 298:6 317:8	X-rays [1] 425:10
wadding [3] 217:18	421:11 422:7 422:12	350:14 353:7 353:8	y'all [1] 334:19
226:12 226:20	422:17 426:6 427:2	356:10 357:8 367:10	year [16] 256:5 271:9
waffle [1] 415:19	427:20 428:3 429:8	368:11 370:16 371:4	280:4 280:21 308:12
waited [1] 237:19	430:19 432:9 434:15	384:4 392:4 395:19	315:7 320:1 320:20
walk [2] 268:5 424:21	435:18 436:14 436:19	395:21 411:4 428:5	343:19 351:13 397:10
Walker [4] 298:3	437:6 437:8 437:13	443:5 443:16	400:4 400:9 405:21
306:5 307:10 323:21	442:15 444:6	witnesses [2] 236:8	416:5 433:16
Walker's [1] 346:16	Waters' [3] 359:3	388:16	yearly [1] 397:8
walking [1] 426:15	370:20 397:4	wonder [1] 219:13	ycars [34] 256:5
wallboards [2] 217:15	ways [3] 325:8 408:5	Woodson [2] 296:10	256:12 267:15 269:14
226:8	409:5	297:1	280:7 283:4 283:20
wanting [1] 427:13	wear [2] 279:9 279:18	word [1] 287:16	305:6 311:20 319:8
wanton [1] 405:20	wearing [2] 221:11	words [2] 269:19	326:21 350:10 365:16
wants [1] 236:20	441:10	426:3	366:1 366:4 372:18
War [1] 263:9	Wednesday [1] 199:14	worked [10] 206:5	373:11 379:10 382:21
arning [10] 334:6	week [4] 318:6 318:19	217:21 232:13 233:7	383:5 390:18 398:18
48:8 348:18 349:13	319:3 354:21	274:10 424:19 431:13	399:19 400:3 400:6
350:9 408:10 408:12	welcome [1] 237:1	431:20 439:7 439:8	400:12 404:4 404:16
408:14 408:16 431:3	welder [1] 441:9	worker [8] 273:12	409:17 413:8 413:14
warnings [3] 334:9	Wenrich [2] 346:6	288:19 324:21 328:21	431:9 431:16 433:13
349:18 409:1	346:8	431:6 431:8 441:9	yet [4] 216:13 219:5
Waters [165] 199:15	West [1] 254:13	441:10	408:11 425:13
200:2 201:13 202:2	wet [2] 260:12 329:19	workers [29] 248:7	York [6] 217:17 267:16
205:8 205:13 205:16	wherein [1] 408:7	253:6 260:2 260:9	270:3 309:14 318:21
206:3 210:6 210:10	wherever [3] 247:13	263:4 269:14 270:13	417:3
210:15 210:19 211:6	260:13 262:20	273:7 275:9 277:17	yourself [8] 238:17
211:10 211:12 218:10	whichever [1] 378:9	283:2 284:4 284:8	366:8 376:11 376:13
222:15 223:7 228:10	whole [2] 201:20	284:17 311:1 317:19	377:8 378:17 422:21
228:14 233:12 233:14	223:5	317:21 329:2 331:6	428:17
233:18 233:21 234:11	widely [1] 214:21	333:5 334:1 408:11	Z-c-i-s-c-r [1] 328:13
234:14 234:17 235:3	widespread [1] 243:11	414:1 415:18 425:10	Zang [1] 200:3
235:4 235:7 235:10	wife [1] 221:18	425:20 427:13 431:1	Zapp [14] 213:1
235:13 236:13 237:11	Wilhelm [1] 232:7	431:4	214:16 216:10 218:14
237:13 237:20 239:19	Williams [1] 304:9	workers' [5] 208:1	219:7 220:16 261:14
239:21 240:7 249:21	willing [6] 339:21	208:2 307:4 315:15	261:14 444:16 444:20
250:10 262:2 264:19	383:11 390:5 390:9	317:17	445:7 445:12 445:14
266:17 272:2 272:7	391:15 393:5	workplace [2] 246:7	445:16
281:4 281:10 281:12	Wilson [2] 212:11	284:10	Zapp's [1] 221:14
281:15 281:18 282:17	444:14	Works [1] 344:16	Zeiser [1] 328:12
285:11 292:5 294:16	wind [1] 441:13	world [5] 202:21	Zeiser's [1] 329:11
297:14 300:2 300:9	wish [2] 341:16 360:8	208:3 246:6 263:9	
310:17 326:11 334:17	withdraw [2] 325:17	408:4	
335:3 335:7 335:13	432:5	worn [1] 247:14	
350:13 350:17 352:10	within [12] 225:20	Worth [1] 200:15	
352:12 352:14 352:18	256:5 270:11 301:2	write [2] 369:3 396:9	
353:1 353:4 353:10	332:6 332:10 336:3	writer [2] 327:7	
353:17 354:9 354:12	336:5 336:6 336:9	328:12	
354:16 354:20 355:8	336:16 417:1	writes [1] 315:9	
355:20 356:9 356:12		writing [5] 311:11	
357:2 357:6 357:14		312:14 323:13 364:4	
357:20 358:3 359:6		372:20	
359:13 359:20 362:12		writings [8] 251:21	