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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF ALAMEDA

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ERIC WESTON,

Plaintiff,

vs.

No. RG08426405

ASBESTOS CORPORATION LIMITED,
et al.,

Defendants.

_____ /

VIDEOTAPED DEPOSITION OF JOHN KELSE

(PMK/COR FOR R.T. VANDERBILT COMPANY, INC.)

Taken Before KATHERINE J. KIRBY, CM, CRR

CSR NO. 6418

August 10, 2009

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DEPOSITION OF JOHN KELSE

1
2
3 BE IT REMEMBERED, that pursuant to Notice, and on
4 the 10th day of August 2009, commencing at the hour of
5 10:12 a.m., in the offices of KAZAN, MCCLAIN, LYONS,
6 GREENWOOD & HARLEY, 171 Twelfth Street, Third Floor,
7 Oakland, California, before me, KATHERINE J. KIRBY, a
8 Certified Shorthand Reporter, personally appeared JOHN
9 KELSE, produced as a witness in said action, and being
10 by me first duly sworn, was thereupon examined as a
11 witness in said cause.

12
13 ---o0o---

14
15 APPEARANCES:

16 For the Plaintiffs:

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(Via telephone)

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19 For the Defendants, R.T. Vanderbilt Company, Inc.:

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21 30 Winfield Street
22 Norwalk, Connecticut 06856

23 VIDEOGRAPHER: Stanley Booker, Tele-Video Production
24 Services.
25

1 --o0o--

2 THE VIDEOGRAPHER: We are now on the
3 record. My name is Stan Booker. I'm a qualified
4 video technician. I'm videotaping on behalf of
5 Tele-Video Production Services. The court 10:13
6 reporter today is Kathy Kirby. Today's date is
7 August the 10th, 2009. The present time is
8 10:12 a.m.

9 The location of this deposition is the
10 Kazan Law Firm located at 171 Twelfth Street, 10:13
11 Oakland California.

12 Today's witness is John Kelse testifying
13 for R.T. Vanderbilt in the case of Eric Weston
14 versus Asbestos Corporation Limited, Case No.
15 RG08426405, filed in the Superior Court of the 10:14
16 State of California in and for the County of
17 Alameda.

18 This deposition was noticed by Denise
19 Abrams and Justin Bosl for the plaintiff.

20 Counsel for the parties, please identify 10:14
21 themselves and for whom they are appearing,
22 please.

23 MS. ABRAMS: Denise Abrams and Will Ruiz
24 for the plaintiffs.

25 MR. RADCLIFFE: Tom Radcliffe for 10:14

1 R.T. Vanderbilt.

2 MR. CHUSID: Bruce Chusid for R.T.

3 Vanderbilt.

4 MR. WAY: Brendan Way for DAP.

5 MS. LEE: Jennifer Lee on behalf of 10:14

6 CertainTeed.

7 MR. ZAPALA: Alan Zapala for Modern

8 Plastics, Inc.

9 MR. PAN: Eric Pan on behalf of W.W. Henry
10 and the Henry Company. 10:14

11 MR. BOSL: I'm Justin Bosl from the Kazan
12 firm also.

13 MS. ABRAMS: Oh, sorry. I didn't know you
14 were there.

15 THE VIDEOGRAPHER: Anyone on the 10:14
16 telephone?

17 MS. MCLEOD: This is Lauren McLeod
18 appearing on behalf of Calaveras Asbestos Limited
19 and U.C. Regents of California.

20 MR. DAVIS: Good morning. Mark Davis for 10:15
21 Kaiser Gypsum Company, Inc.

22 MR. JACKSON: This is Warren Jackson for
23 Cyprus AMAX Metals Company.

24 THE VIDEOGRAPHER: Anyone else?

25 Any stipulations or statements you would 10:15

1 like on the record at this time, Counsel?

2 None.

3 The court reporter will swear in the
4 witness, please.

5 JOHN KELSE,

6 sworn as a witness,

7 testified as follows:

8 EXAMINATION BY MS. ABRAMS:

9 Q. Good morning, Mr. Kelse. How are you?

10 A. Good morning. 10:15

11 Q. We are here in my office. My name is
12 Denise Abrams. I'll be taking your deposition
13 today.

14 You've been produced by the R.T.
15 Vanderbilt Company as the person most qualified 10:16
16 and custodian of records; is that correct?

17 A. I'm not sure what those terms mean. I've
18 been asked by my attorneys to show up and answer
19 your questions as best I can.

20 Q. Will you state your name for the record, 10:16
21 please.

22 A. John Kelse.

23 Q. And spell your last name?

24 A. K-e-l-s-e.

25 Q. Your current address, please? 10:16

1 A. 152 Pulaski, P-u-l-a-s-k-i, Highway in
2 Ansonia, A-n-s-o-n-i-a, Connecticut.

3 Q. Is that your corporate address?

4 A. No, it's not.

5 Q. What is your corporate address? 10:16

6 A. It's 30 Winfield Street, W-i-n-f-i-e-l-d,
7 in Norwalk, Connecticut 06855.

8 Q. If you would kindly indulge us and
9 possibly look at the camera while you're being
10 asked questions, I think we would all appreciate 10:16
11 this since this may be shown to the jury; okay?

12 A. Certainly.

13 Q. From time to time I might remind you of
14 that; all right?

15 A. Okay. 10:17

16 Q. It's kind of difficult to be talking and
17 not looking.

18 A. I know.

19 Q. So I appreciate your cooperation.

20 A. Okay. 10:17

21 Q. You've had your deposition --

22 UNIDENTIFIED SPEAKER: Sorry to interrupt,
23 but it's really difficult to hear. Is there any
24 way the sound can be closer or mic magnified?

25 MS. ABRAMS: You can come to the office.

1 How's that? Is that better?

2 UNIDENTIFIED SPEAKER: Yeah. Yeah,
3 thanks.

4 BY MS. ABRAMS:

5 Q. Now, on how many depositions -- how many 10:17
6 prior depositions have you given?

7 A. I don't know the exact number. Somewhere
8 in the area of about half a dozen.

9 Q. Have you ever given any trial testimony?

10 A. Once. 10:17

11 Q. When was that?

12 A. Two, three years ago in New Jersey. That
13 was known as the Hirsh case.

14 Q. Were you an expert witness in that case?

15 A. No. I represented the company. 10:17

16 Q. You had your deposition taken before, but
17 let me just go over briefly the rules to refresh
18 your memory; okay?

19 We are here in an informal setting.

20 However, you are under oath, as you know, and 10:18
21 you've sworn to tell the truth here today, you
22 understand that?

23 A. Certainly, yes.

24 Q. Just as if you were in a court of law even
25 though we're sitting around a conference table. 10:18

1 A. Right.

2 Q. If you -- you will -- the court reporter
3 is going to take down everything we say, and at
4 the end of the deposition, she's going to type it
5 up in a booklet, and you'll have an opportunity to 10:18
6 review that. However, if you decide to change
7 anything substantive, we'll be able to comment on
8 that, you understand?

9 A. Certainly.

10 Q. So, because of that, when I'm asking you 10:18
11 questions, if you don't understand something I'm
12 asking you now, please let me know that and I'll
13 rephrase it. It's quite possible you won't
14 understand my question; in fact, it's quite
15 possible I may not understand your answer given 10:18
16 the topics that we're going to be talking about.

17 A. Okay.

18 Q. But if you do answer my question, I'll
19 assume that you did understand it and we'll go
20 from there; okay? 10:19

21 A. I'll do my best.

22 Q. If I ask you a question, you need to
23 answer out loud, not "uh-huh" or "huh-uh" because
24 the court reporter won't know how to write that
25 down; all right? 10:19

1 A. Yes.

2 Q. We're here today, we'll be talking about
3 some things that happened quite a while ago. You
4 have your own personal knowledge about
5 R.T. Vanderbilt, you've been there for quite a 10:19
6 while. Some things you will know and some things
7 you may generally know and some things would be
8 just wild guesses. We don't want you to guess at
9 anything, but we are entitled to your best
10 estimate; okay? 10:19

11 A. Okay. I'll try to characterize it in one
12 of those three categories.

13 Q. The only thing that you're not supposed to
14 do here is guess; okay?

15 A. Okay. 10:19

16 Q. So, for example, let me give you an
17 example of that. If I were to ask you how long
18 this table was, you might be able to give me an
19 estimate of that even though we don't have a
20 ruler, but if I asked you how long is my dining 10:20
21 room table at my house that would probably be a
22 guess; okay?

23 A. Yes.

24 Q. Now, what is your understanding of why
25 you're here today? 10:20

1 A. Well, to testify as to my knowledge that's
2 pertinent to this case. That's pretty much the
3 extent of my understanding.

4 Q. Did you review anything before you came
5 here today? 10:20

6 A. I pulled together a few documents that,
7 it's my understanding, that may assist me in
8 responding to questions as it pertains to the
9 composition of our industrial talc and to my
10 understanding of the health risks associated with 10:20
11 it.

12 Q. So it's your understanding that you'll be
13 asked to talk today about the composition of the
14 Vanderbilt industrial talc and any health risks;
15 is that correct? 10:21

16 A. As I understand it, yes.

17 Q. Did you provide these documents to your
18 attorneys or have they seen them and had an
19 opportunity to produce them to us?

20 A. I don't know what was produced to you. My 10:21
21 attorneys did have a chance to look through the
22 folders.

23 Q. Are you planning to give those to me
24 today?

25 A. Sure. 10:21

1 Q. How about if I take a look right now;
2 okay?

3 A. Okay.

4 Q. Are these things we haven't seen before,
5 Bruce?

10:21

6 MR. CHUSID: It's my understanding that
7 all of those documents were produced in response
8 to the request for production of documents.

9 MR. RADCLIFFE: There may be a few that
10 were not.

10:21

11 MS. ABRAMS: Well, since there is one,
12 two, three, four, about six inches of documents,
13 is there a way that we can short-circuit this and
14 you can let me know what was produced and what
15 wasn't?

10:21

16 MR. RADCLIFFE: I am not able to do that.
17 You're certainly entitled to have copies. You're
18 welcome to have copies of all the stuff he has
19 there.

20 BY MS. ABRAMS:

10:22

21 Q. So there are three files that you
22 produced. One says "Health Ref." One says
23 "Mineral R-E-F"?

24 A. Yes, reference.

25 Q. And one says "Mouldene file." Are these

10:22

1 files that you had in your office that you pulled?

2 A. Yes.

3 Q. Did you create them for this deposition?

4 A. To the extent I pulled documents together
5 that I thought would be helpful to me based on my 10:22
6 understanding of why I'm here, yes.

7 Q. So do you have a file in your office
8 entitled "Mineral Ref"?

9 A. I have files that deal with mineral
10 analysis of our talc and articles about the 10:22
11 mineral composition of the talc. They're pretty
12 extensive.

13 I don't know if part of that stack
14 represents some of those documents or not, but
15 they're very extensive. I tried to condense it 10:23
16 and pull some documents that are summary in
17 nature.

18 Q. Okay. Let's go through Mineral Ref, the
19 file Mineral Ref. You tried to pull particular
20 documents. What was your criteria for pulling 10:23
21 documents or selecting these documents as opposed
22 to everything else in that file?

23 MR. RADCLIFFE: Object to the form.

24 Misstates prior testimony. Vague, ambiguous.

25 BY MS. ABRAMS: 10:23

1 Q. You can answer.

2 A. Well, in prior cases, I've been asked why
3 I'm so convinced that there is no asbestos in
4 mineral talc. These are some documents that
5 reflect why I have that -- why I -- well, I know 10:23
6 there's no asbestos in mineral talc, why I feel so
7 strongly about it.

8 So if I were asked that question, these
9 are the types of documents that I would produce as
10 a basis for my position. 10:24

11 Q. How thick is your mineral ref file?

12 MR. RADCLIFFE: Objection. Misstates
13 previous testimony.

14 BY MS. ABRAMS:

15 Q. Do you have a file that's called "mineral 10:24
16 ref" or something to that nature?

17 A. Yes. And I know that in prior cases, all
18 of our analytical reports in chronological order,
19 which is probably a stack about this high
20 (indicating) have been taped. You know, what was 10:24
21 produced to you, I don't know.

22 Q. And by "this high," that's about six
23 inches high, something like that?

24 A. It's probably --

25 MR. RADCLIFFE: Don't guess. 10:24

1 THE WITNESS: It's more than six inches.

2 BY MS. ABRAMS:

3 Q. Do you have an estimate of how high that
4 is?

5 A. Again, I don't have a ruler, so if 10:24
6 you're -- I don't want to speculate. But it's
7 more than six inches and less than 16, somewhere
8 in there.

9 Q. Is it a banker's boxful?

10 MR. RADCLIFFE: Objection. Vague. 10:25

11 THE WITNESS: I'd say a file cabinet,
12 about that thick (indicating).

13 Q. A file drawer?

14 A. Yeah.

15 Q. Do you see the stack of documents sitting 10:25
16 on the table right in front of us?

17 A. Yes.

18 Q. Is it thicker than that?

19 A. It's about the size of one pile, maybe a
20 little bit less than that. 10:25

21 Q. And that's just your mineral reference
22 file?

23 A. That's -- that's the analytical reports
24 that I have a record of that -- that to the best
25 of my knowledge has ever been produced or we have 10:25

1 access to.

2 Q. What is all of that -- what are all of
3 those analytical reports? What are they -- are
4 they labeled in a file?

5 A. Well, they're -- as I mentioned they're in 10:25
6 chronological order and they all relate to
7 analysis that speak to the question of whether
8 there's asbestos in Vanderbilt upstate New York
9 talc or not.

10 Q. So you have a file of analytical reports 10:26
11 in chronological order.

12 Is the file titled "analytical reports,"
13 by any chance? Or do you know what it's titled?

14 A. I'm trying to remember what I scribbled on
15 the tab. I think it says "analytical report." 10:26
16 I'm pretty sure. That's a guess, but that's what
17 it refers to.

18 Q. And out of that file, you selected several
19 documents that you brought and put into the
20 mineral ref folder? 10:26

21 A. Yes, several, although there are a couple
22 of cover letters that were written by mineral
23 scientists that summarize their experience in
24 looking at our talc over a period of decades.

25 Q. Among the analytical report file, are 10:26

1 there documents in there that show -- that
2 indicate there may be asbestos in Vanderbilt talc
3 or are interpreted that way?

4 A. The documents that I've kept are all
5 analytical reports that we have received. And 10:27
6 there are some documents in that pile that
7 incorrectly identify asbestos in the talc.

8 Q. Did you bring those?

9 A. I believe or you would have to check -- I
10 did not bring those. I brought the documents that 10:27
11 we rely on to tell us there isn't asbestos in the
12 talc but why people have confused it, why it is --
13 why they've made an error in the analysis.

14 Q. How would I go about checking whether I
15 have those? 10:27

16 A. I guess if it were me, I would look at the
17 documents that I received and I would have to read
18 them and see what they concluded.

19 Q. How would I know whether there's something
20 in your file that isn't in my file that I didn't 10:28
21 receive?

22 A. I can't speak for what the attorneys sent.
23 I know that all of those analytical reports were
24 copied from my file in chronological order. I
25 don't know in what form they sent it to you or if 10:28

1 they sent it all to you. All I know is what I'm
2 here to testify to.

3 Q. When were those reports copied?

4 A. I know four or five years ago for certain.

5 And I'm not sure if there have been subsequent 10:28
6 editions or additional copies.

7 Q. Have you added to those reports in the
8 last four or five years?

9 A. The last couple years.

10 Q. Have those been copied, to your knowledge? 10:29

11 A. I don't know.

12 Q. Who copied them four or five years ago?

13 A. That was our national counsel, Hawkins &
14 Parnell.

15 Q. So is it fair to say that you did not go 10:29
16 into your file of analytical reports for this
17 case, Mr. Weston's case, and copy any material
18 that was added to that file in the last four or
19 five years and bring it here?

20 MR. RADCLIFFE: Objection. 10:29

21 MS. ABRAMS: Other than what you may have
22 there in your -- before us?

23 THE WITNESS: No. Just what I have here.

24 I do have a file for product and material
25 designated as Mouldene because I understood from 10:30

1 the attorneys that that was material that was
2 being discussed in this case. So I did check that
3 file for whatever I had that pertained to
4 Mouldene.

5 BY MS. ABRAMS:

10:30

6 Q. So you have something from 2002. But that
7 already would have been copied; correct? That was
8 more than four or five years ago?

9 A. Well, everything in that folder is not
10 analytical reports. Some of the documents are.
11 Others are summaries. I have looked at this talc
12 for X number of years. I've never seen asbestos
13 in it, that sort of thing. Along with the CVs of
14 the individuals that make those observations.

10:30

15 This would be an example: This is an MSHA
16 Mine Safety Health Administration report the
17 company would receive subsequent to a visit to the
18 mining facility, which in this case they did air
19 sampling and -- specifically for asbestos. And so
20 a report like this would be in that stack.

10:31

21 In this case, this was dated 2001, so you
22 should find it, if you did get a copy of that disk
23 containing all the analytical reports. If you go
24 back to 2001, you should find this document
25 because it is an analytical report.

10:31

1 Q. Okay. So is there anything in that folder
2 that you brought that you're looking at in front
3 of you that would have been added to your file
4 analytical reports after it was copied by the
5 Hawkins & Parnell firm, if you could look in there 10:31
6 and tell us that? And we're just talking about
7 the analytical report file.

8 A. No.

9 MS. ABRAMS: Okay. So I would request
10 that R.T. Vanderbilt send to us, in chronological 10:32
11 order, an entire copy of this analytical report
12 file.

13 MR. RADCLIFFE: I understand that's been
14 done.

15 MS. ABRAMS: And how would we know that? 10:32
16 What custodian could we talk to, to confirm that?

17 MR. RADCLIFFE: Well, Mr. Kelse is the
18 custodian, so you can talk to him. You can pull
19 out the analytical files that you have been
20 provided and you can show them to him and you can 10:32
21 ask him if there are any others. If there are any
22 others, we'll provide them.

23 BY MS. ABRAMS:

24 Q. Mr. Kelse, did you produce any documents
25 in response to this notice? I'll give you 10:32

1 Exhibit 1 and have you look at that.

2 (Plaintiff's Exhibit No. 1 marked for
3 identification.)

4 BY MS. ABRAMS:

5 Q. Did you look in your files, go through 10:32
6 your files, go through any documents and produce
7 them in response to that notice?

8 MR. RADCLIFFE: I'll state for the record
9 that R.T. Vanderbilt has produced documents to
10 your firm that are responsive to the documents, 10:33
11 the document request in the notice.

12 MS. ABRAMS: And I sent out a notice to
13 talk to somebody to look for the documents and
14 brought them here and can testify that what was
15 produced is everything that R.T. Vanderbilt has in 10:33
16 response to that notice.

17 And so if he's not the person, then you
18 need to bring the person that is the custodian of
19 records who can do that. All I'm asking is who is
20 that person. 10:33

21 MR. RADCLIFFE: He is the person for the
22 categories for which he has been designated. He
23 is the person.

24 MS. ABRAMS: Could you read the question
25 back, please.

1 (Record read.)

2 MR. RADCLIFFE: You're talking about other
3 than the documents you've already identified in
4 the three folders?

5 MS. ABRAMS: I'm just asking him the 10:33
6 question I asked.

7 MR. RADCLIFFE: I'll object because it
8 misstates prior testimony where he's already
9 identified three folders that he did produce.

10 Go ahead and answer. 10:34

11 MS. ABRAMS: Can you read the question
12 back, please? His question isn't the one I asked.
13 I'd like him to answer the one I asked.

14 (Record read.)

15 MR. RADCLIFFE: Same objection. 10:34

16 MS. ABRAMS: Let me even back up.

17 BY MS. ABRAMS:

18 Q. Have you ever seen that notice before, the
19 notice for production and custodian of records in
20 Mr. Weston's case? 10:34

21 A. I don't recall seeing it. I know I was
22 asked what records I had on Mouldene which is one
23 of the reasons I pulled that one folder.

24 And, actually, that is complete. That was
25 a request that was made, and the request was all 10:34

1 the documents I had. So that's what I brought
2 with me.

3 In regard to the rest of these discovery
4 questions, no. A number of these don't apply to
5 me anyway. 10:35

6 Q. Do you know anyone at R.T. Vanderbilt who
7 received that notice and reviewed R.T. Vanderbilt
8 files in response to that notice to produce
9 documents?

10 A. No. I'm not aware of anyone. 10:35

11 Q. Is it fair to say that that pile of
12 documents was generated from an attorney's office
13 and not from R.T. Vanderbilt?

14 MR. RADCLIFFE: Object to the form.
15 Misstates prior testimony. Vague, ambiguous. 10:35

16 BY MS. ABRAMS:

17 Q. If you know.

18 A. It's my understanding that all the
19 technical information which certainly would
20 include analytical reports would come from my 10:35
21 file. So to the extent that they were provided to
22 you by a legal firm, originally they came from my
23 files.

24 Q. Well, you've already established that four
25 or five years ago somebody from Hawkins & Parnell 10:36

1 copied your analytical file; correct?

2 A. That's right.

3 Q. And we've already established that
4 nobody's come to copy anything in your analytical
5 file for the last four or five years; correct? 10:36

6 MR. RADCLIFFE: Objection. Misstates
7 prior testimony.

8 THE WITNESS: Yes -- I don't think I said
9 that. I said I wasn't sure.

10 BY MS. ABRAMS: 10:36

11 Q. Can you think of an instance where anyone
12 has come and updated that production and copied
13 any analytical material over the last four or five
14 years from your file?

15 A. I can't think of an instance, but it 10:36
16 doesn't -- I don't know. I don't know whether
17 they did or not.

18 Q. You don't know that?

19 A. That's right.

20 Q. With respect to what you brought here 10:36
21 today, why did you bring reports that showed
22 R.T. Vanderbilt's position on whether or not there
23 is asbestos in the talc?

24 A. Well, these are documents that I feel in a
25 very summary way, provide a good overview as to 10:37

1 why we -- I don't even know if I'd characterize it
2 as a position anymore. I think it's -- it's now a
3 fact that there simply isn't asbestos in this
4 talc.

5 Q. And you think that's a universal 10:37
6 agreement?

7 A. Among those individuals, analytical
8 personnel, mineral scientists, regulatory agencies
9 that deal with our talc, I believe that it is the
10 consensus, yes. 10:37

11 Q. Did you bring with you anything from your
12 analytical file that would show that there is any
13 disagreement with that position by anyone?

14 A. I didn't bring any in this file. But if
15 you did get a disk that reflected that 10:38
16 chronological listing of analytical reports, you
17 would have received every report, regardless of
18 whether it incorrectly identified asbestos in the
19 talc or not.

20 Q. It's fair to say that within your file of 10:38
21 6 to 16 inches of analytical reports, there are
22 reports that would disagree with R.T. Vanderbilt's
23 interpretation that there's no asbestos in the
24 talc; correct?

25 MR. RADCLIFFE: Object to the form. Vague 10:38

1 and ambiguous.

2 THE WITNESS: There are reports that claim
3 to find asbestos in the talc.

4 MS. ABRAMS: Could you read the question
5 back. 10:39

6 (Record read.)

7 MS. ABRAMS: Could you answer the
8 question, please.

9 MR. RADCLIFFE: Same objection. It's been
10 asked and answered. 10:39

11 BY MS. ABRAMS:

12 Q. Is that correct?

13 A. I'm a little confused about how to answer
14 the question.

15 BY MS. ABRAMS: 10:39

16 Q. Did you understand the question?

17 A. Yes, I understood it. But the inference
18 is that that is an interpretation, and I think
19 that's what I'm having trouble with. We know
20 there's no asbestos in the talc. The fact that 10:39
21 there are reports that say that there is or
22 someone has found it, to us is simply an example
23 of an error which I'm -- what papers I'm prepared
24 to discuss with you to show you what that error is
25 and why that mistake has been made, especially in 10:39

1 the past 20, 30 years ago more commonly.

2 I'm mostly concerned about what we know
3 today, not what people made mistakes with or went
4 through a learning curve 20, 30 years ago.

5 But my documents would reflect that 10:40
6 learning curve and that process of understanding a
7 complex mineral composition of this talc.

8 Q. Move to strike as nonresponsive.

9 Mr. Kelse, it's correct, is it not, that
10 within your file of analytical reports there are 10:40
11 reports that show in that reporter's perspective
12 that there is asbestos in Vanderbilt talc. Is
13 that a correct statement?

14 MR. RADCLIFFE: Objection. Vague and
15 ambiguous. 10:40

16 THE WITNESS: I would say no. I would say
17 it reports it. I would not say "shows." I would
18 say it reports it. I would say if it was actually
19 there, I would use the word "shows."

20 BY MS. ABRAMS: 10:40

21 Q. Okay. We're going to copy this folder and
22 then we'll talk about it later; okay?

23 A. Sure.

24 Q. Let's talk about your folder "Health Ref."
25 Do you have files in your office that correspond 10:41

1 to any health information?

2 A. Yes, I do. This very top sheet -- these
3 are PowerPoints that I put together partially for
4 use today or for possible future presentation.

5 This first one summarizes the number of health 10:41
6 studies that are specific to Vanderbilt talc.

7 These are seven human mortality studies --

8 Q. Excuse me, but we're going to talk about
9 those later after we copy them. I just want to
10 know what's in there. 10:41

11 So you have a PowerPoint in there and what
12 else?

13 A. Yes. Which summarizes the health studies
14 that have been undertaken.

15 MR. RADCLIFFE: Let me just object to the 10:41
16 question. He didn't say he has a PowerPoint. He
17 said he had PowerPoint slides.

18 Go ahead.

19 MS. ABRAMS: Apologize.

20 BY MS. ABRAMS: 10:42

21 Q. Why don't we go on and we'll talk about
22 the slides later.

23 What other documents did you bring?

24 A. Again, this is just the slide. These are,
25 as I mentioned earlier, sort of summary documents, 10:42

1 you know, rather than having a stack of individual
2 health studies. These are -- this one, for
3 example, is --

4 MR. RADCLIFFE: Mr. Kelse, I object.
5 You're not being responsive. She asked you what 10:42
6 you had, not what they say. Just a description of
7 what's in there.

8 MS. ABRAMS: You can make an objection,
9 but let's not have a discussion. You can just
10 continue. 10:42

11 THE WITNESS: I apologize. It's in my
12 zeal to describe what I have here. I'm going to
13 try to explain it --

14 BY MS. ABRAMS:

15 Q. So you have a summary document there. Is 10:42
16 that --

17 A. I have a summary document.

18 Q. Can I see that one?

19 A. Sure. It's a summary of one study.

20 Q. This is the second page in there and it's 10:42
21 a slide, okay, and it has "combined conclusion" on
22 it; is that correct?

23 A. That's correct.

24 Q. Is there underlying data for that slide in
25 your files? 10:43

1 A. Yes, there is a report, a health study
2 report, published, peer reviewed.

3 Q. Whose report is it?

4 A. It's known as the Honda study.

5 Q. Do you have the underlying data for the 10:43
6 Honda study in your files?

7 A. I did look at the disk that was sent to
8 you briefly to get a sense of what was sent and I
9 notice this document, this health study was in it.

10 Q. My question was, do you have the 10:43
11 underlying data that went into the health study,
12 not do you have the health study? Do you have
13 Honda's data?

14 A. Some.

15 Q. Where is that kept? 10:43

16 A. I have it in my office, some.

17 Q. And was that on the disk?

18 A. No. Just the published peer reviewed
19 paper.

20 Q. Why is it that you have Mr. Honda's data? 10:43

21 MR. RADCLIFFE: Object. Misstates prior
22 testimony. Vague and ambiguous. Misleading.

23 THE WITNESS: Well, this was an
24 epidemiologic mortality study of our talc workers.

25 And this was a study that R.T. Vanderbilt 10:44

1 commissioned. So therefore, the research group
2 that did this study, as would be the case with any
3 research group studying Vanderbilt talc workers,
4 would be asking the company for data, data such as
5 work histories, job descriptions, things of that 10:44
6 sort. So that's underlying data. And that type
7 of information I have.

8 BY MS. ABRAMS:

9 Q. So, in other words, R.T. Vanderbilt
10 commissioned a study and gave out the personal 10:44
11 information of its employees to the researcher and
12 you have a copy of that information; is that
13 correct?

14 MR. RADCLIFFE: Objection. Misstates
15 prior testimony. Misleading. Vague and 10:44
16 ambiguous.

17 THE WITNESS: I wouldn't call it personal
18 information. It's work history information that
19 you would need in order to do a study of this
20 sort. 10:45

21 BY MS. ABRAMS:

22 Q. So did he have the person's name?

23 A. The researchers would have employee names
24 because they search national -- that's something
25 that they do separately. 10:45

1 Q. Did R.T. Vanderbilt give the researchers,
2 along with work histories and job descriptions,
3 the name of the employee to match up to the work
4 history and the job description?

5 A. Yes. They would have access to that. 10:45

6 Q. Through R.T. Vanderbilt?

7 A. That's the only way they would get it,
8 yes.

9 Q. And through R.T. Vanderbilt did they send
10 any medical information on that person? 10:45

11 MR. RADCLIFFE: Objection. Vague.

12 BY MS. ABRAMS:

13 Q. To the Honda people.

14 MR. RADCLIFFE: Objection vague and
15 ambiguous. 10:45

16 THE WITNESS: Well, it's a mortality
17 study, so they're reporting on workers who are
18 deceased.

19 BY MS. ABRAMS:

20 Q. Okay. Did they send any medical records 10:46
21 on those workers?

22 MR. RADCLIFFE: Same objection.

23 BY MS. ABRAMS:

24 Q. Any records of PFTs or chest x-rays or
25 pathology or any other medical information to go 10:46

1 along with the name, the work history and the job
2 description?

3 MR. RADCLIFFE: Same objection.

4 BY MS. ABRAMS:

5 Q. To Mr. Honda. 10:46

6 A. For a mortality study, that type of
7 information is generally not provided. It
8 wouldn't be useful for the study. They want to
9 know who worked there and what their vital status
10 is, are they alive or dead. If they are deceased, 10:46
11 then they want to know when they died and they
12 want to know the reason for their death as --
13 typically as articulated on the death certificate.

14 They have a process -- all epidemiologists
15 have this process of collecting that information. 10:46
16 All sorts of confidentiality agreements are signed
17 and so forth in order for them to obtain it. They
18 obtain that independently. That's not obtained
19 through the Vanderbilt Company.

20 Q. I'm going to move to strike that answer. 10:47

21 MS. ABRAMS: Could you read the question
22 back.

23 BY MS. ABRAMS:

24 Q. And please answer the question.

25 (Record read.) 10:47

1 MR. RADCLIFFE: Objection. Vague.
2 Ambiguous. Misstates prior testimony. Asked and
3 answered.

4 THE WITNESS: I think when I said that's
5 not the type of information that they would 10:47
6 collect.

7 MS. ABRAMS: You said that's not the type
8 of information they would collect. What I want to
9 know --

10 THE WITNESS: PFTs, x-rays -- 10:47

11 BY MS. ABRAMS:

12 Q. Excuse me. What I want to know is, did
13 R.T. Vanderbilt send, along with name, work
14 history and job description, any medical
15 information regarding the subjects of the study to 10:47
16 Mr. Honda?

17 MR. RADCLIFFE: Objection. Asked and
18 answered.

19 BY MS. ABRAMS:

20 Q. Yes or no? 10:47

21 A. No.

22 MR. RADCLIFFE: Objection. Asked and
23 answered.

24 BY MS. ABRAMS:

25 Q. Did R.T. Vanderbilt send to Honda or his 10:47

1 people the death certificates and the reasons for
2 the deaths of these individuals?

3 A. No.

4 Q. Where did they obtain that information?

5 A. Oh, boy. There's an NCR I think is the 10:48
6 National Registry of -- I have to be embarrassed,
7 I should know this name.

8 But there's a -- there's a federal program
9 through which you get this information. It's not
10 taken from company files because the company files 10:48
11 may not be complete.

12 Q. Do you have death certificates for all
13 your workers?

14 A. No, we don't. We have some death
15 certificates for workers who were eligible for 10:48
16 pension plans. The death certificates are
17 obtained as evidence that they are deceased so
18 that their pension can be initiated.

19 Q. Has R.T. Vanderbilt, to your knowledge,
20 ever accessed information from the national 10:49
21 registry?

22 A. No, I've never done that.

23 Q. How do you know that Honda got his
24 information there?

25 A. I think he says so in his paper, but 10:49

1 that's the typical process.

2 Q. So in your files, you have Honda data that
3 you sent to him regarding the name, work history
4 and job description for workers that were in the
5 study; correct? 10:49

6 A. That's correct.

7 Q. What else -- what else is in the database
8 -- the Honda data that's in your file?

9 A. There is also exposure information in
10 terms of dust levels by job category. 10:49

11 Q. Where did those come from?

12 A. That's a compilation of reports from air
13 sampling the company did, air sampling that the
14 company has records of from the Mine Safety and
15 Health Administration air sampling that may have 10:50
16 been produced by insurance carriers over the
17 years, any air sampling from any other studies
18 that have ever been, you know, conducted by other
19 groups at the plant.

20 So it's basically all exposure information 10:50
21 that we had available to us.

22 Q. Did you send him the NIOSH data?

23 A. Sure. They had it actually.

24 Q. Who did the compilation?

25 A. There was an industrial hygienist by the 10:50

1 name of Kent Austinstat -- please don't ask me to
2 spell his name -- at the University of Alabama. I
3 think he's the chair of the industrial hygiene
4 department there now.

5 Dr. Honda -- or Dr. Austinstat, he did the 10:50
6 exposure assessment portion of that mortality
7 study.

8 Q. So if I understand you correctly, you sent
9 a bunch of data and they did a compilation, or did
10 R.T. Vanderbilt do the compilation? 10:51

11 MR. RADCLIFFE: Object to the form. Vague
12 and ambiguous.

13 THE WITNESS: They did the compilation.
14 They used the data that we had in our files, data
15 that they could find from any other source, and 10:51
16 they also did their own air sampling in addition.

17 And they also used a questionnaire that
18 had been actually developed by NIOSH which was
19 designed to solicit long-term employee opinions as
20 to high, low, medium dust levels in various 10:51
21 activities over -- over the span of the -- of the
22 operations of the plant which began in 1948.

23 So they had historical dust sampling data
24 from all sources. They took their own dust
25 sampling data and they also had independently 10:52

1 estimates by long-term employees as to high,
2 medium and low dust levels at various jobs and
3 activities.

4 They used all those three things to help
5 determine exposure levels by job category for 10:52
6 periods of years.

7 BY MS. ABRAMS:

8 Q. And you have all those -- that raw data in
9 your files?

10 MR. RADCLIFFE: Object to the form. Vague 10:52
11 and ambiguous.

12 THE WITNESS: A good part of it.

13 BY MS. ABRAMS:

14 Q. And you have the questionnaires that were
15 filled out? 10:52

16 A. Yes, I do.

17 MS. ABRAMS: I would ask that you produce
18 the Honda data and the questionnaires. Because
19 you produced the Honda article, we're entitled to
20 what went into that article, including 10:52
21 questionnaires of the long-term employees on
22 exposure levels.

23 Will you agree to produce that?

24 MR. RADCLIFFE: I'll agree to produce
25 stuff that is not protected from disclosure by 10:52

1 privacy reasons and I'm not sure that it hasn't
2 been produced already. But if it hasn't --

3 MS. ABRAMS: Well, I can tell you we've
4 never gotten questionnaires from long-term
5 employees, so we'd be happy to see those along 10:53
6 with all the other data, to my knowledge.

7 MR. RADCLIFFE: All right. As long as
8 they're not protected from disclosure for privacy
9 reasons.

10 BY MS. ABRAMS: 10:53

11 Q. To your knowledge, has anyone ever copied
12 the raw Honda data and the questionnaires from
13 your files?

14 A. I don't believe anyone has.

15 Q. Let me ask you this: Is it fair to say 10:53
16 that it is likely that some of those long-term
17 employees that answered questionnaires in that
18 Honda study likely at some point worked for
19 International Talc prior to working for
20 R.T. Vanderbilt? 10:53

21 A. I don't know. I don't think so, but I
22 don't know. I don't want to speculate.

23 Q. Well, then the reverse of that would be
24 the Honda data -- the Honda study in that event
25 would not include International Talc workers? 10:54

1 MR. RADCLIFFE: Objection.

2 BY MS. ABRAMS:

3 Q. To your knowledge.

4 MR. RADCLIFFE: I still object. He said
5 he couldn't answer it. That would require 10:54
6 speculation.

7 MS. ABRAMS: Well, what he says is a
8 matter of the record.

9 So why don't you read the question back.

10 THE WITNESS: Yes, if you would. 10:54

11 (Record read.)

12 MR. RADCLIFFE: Objection. Asked and
13 answered. Calls for speculation.

14 BY MS. ABRAMS:

15 Q. To your knowledge. 10:54

16 A. I guess I need a little more
17 clarification. I mean, to the extent that
18 Vanderbilt employed workers from International
19 Talc, they would certainly be included in the
20 study. 10:54

21 Q. That was my point.

22 A. In terms of dust levels for International
23 Talc, that would not be.

24 Q. Understood.

25 Why don't you continue and let us know 10:55

1 what's in that file that you brought.

2 A. Okay.

3 Q. Just in general what you brought.

4 A. In general, this is a listing of the --

5 Q. That's the third page? 10:55

6 A. Yes. This is the listing of the lung
7 cancer cases that were reported in the Honda
8 study, so this is the most up-to-date compilation
9 of that experience.

10 Q. What was the date of the Honda study, if 10:55
11 you recall?

12 A. Well, it was published in 2002, I believe.

13 Q. So those were lung cancers prior to 2002?

14 A. No. The study itself had a vital status
15 cutoff of 1990. 10:55

16 Q. So you brought with you today a
17 compilation of lung cancers prior to 1990?

18 A. Yes, as reported in the Honda study. It's
19 the most up-to-date.

20 Q. And it's your estimation that the most 10:55
21 up-to-date information on the lung cancers coming
22 out of the Vanderbilt talc mines is information
23 that dates prior to 1990, 19 years ago?

24 A. Right. It would include the work
25 population up to that date. 10:56

1 Q. And in your files, do you have information
2 that there had been other lung cancers from any
3 other Vanderbilt mines in the ensuing 19 years
4 since 1990?

5 MR. RADCLIFFE: Object to the form. Vague 10:56
6 and ambiguous.

7 THE WITNESS: I know there had been other
8 lung cancers, but I don't have records like an
9 epidemiologic study where I can say, I know
10 there's been "X" number. I don't know. I'm aware 10:56
11 of one or two, you know, over a period of the next
12 18, 19 years, and you would expect one or
13 two more, a few more.

14 MR. RADCLIFFE: Object. Move to strike as
15 nonresponsive. 10:57

16 BY MS. ABRAMS:

17 Q. Well, how did you become aware of those
18 one or two?

19 A. They may be part of a comp claim which I
20 would see, be aware of. I know of two instances 10:57
21 there. And other than that, I can't think of any
22 that I know specifically.

23 Q. Has R.T. Vanderbilt, to your knowledge,
24 made any attempt to compile from 1990 to the
25 present, the number of lung cancers that have 10:57

1 occurred since -- from work by talc miners in the
2 R.T. Vanderbilt mines?

3 A. No, we haven't.

4 Q. What else did you bring?

5 MS. MCLEOD: I'm having trouble hearing. 10:58

6 Can the court reporter read back the question and
7 the answer?

8 (Record read.)

9 BY MS. ABRAMS:

10 Q. Go ahead. 10:58

11 A. This is the PowerPoint slide that reflects
12 the prevalence of smoking among white males in the
13 United States from 1965 through 1998 contrasted
14 with the smoking prevalence of Vanderbilt miners
15 and millers for the same period of time. 10:58

16 Q. Who created that slide?

17 A. I created the slide.

18 Q. When did you do that?

19 A. Four or five years ago.

20 Q. And what purpose did you do that for? 10:58

21 A. Well, we have had this excess lung cancer
22 that's been persistent in every mortality study
23 done of those talc workers. And, of course,
24 people have inappropriately made the leap that,
25 well, it must be caused by the talc. 10:59

1 But clearly, one of the key factors in
2 lung cancers is smoking. If you don't have
3 smoking information and you're trying to address
4 the causation of lung cancer, you're very
5 restricted in what you can intelligently talk 10:59
6 about.

7 And this was one of the areas that we felt
8 needed more study and more investigation. We do
9 have this persistent excess in lung cancer
10 question: Is it associated with the talc 10:59
11 exposure? And to answer that question, you do
12 have to look at smoking prevalence to see if that
13 may or may not explain where that excess is, or
14 why that excess may exist?

15 Q. So you created this out of curiosity or 11:00
16 for what purpose?

17 A. To get at that very question. The data
18 that I -- that I recorded was the information that
19 was recorded on pulmonary function test
20 questionnaires in which they asked the employee, 11:00
21 do you smoke, how many packs a day, we do have
22 those records. And we were able to go back and
23 look at that.

24 But it also coincides with a case control
25 study that was done by Dr. Gamble who did make an 11:00

1 effort to address this issue of smoking.

2 MS. ABRAMS: Could you read the question
3 back, please.

4 (Record read.)

5 BY MS. ABRAMS: 11:00

6 Q. I won't move to strike, but your answer
7 was nonresponsive.

8 Did you ask the employees permission
9 before you used their data to create this slide?

10 A. Well -- 11:01

11 Q. That's a "yes" or "no" question.

12 Did you ask your employees for permission
13 before you created this information?

14 A. I'd rather explain. No, we did not.

15 Q. Now, you said "we" wanted to find out why 11:01
16 there was this excess in lung cancer. Who is
17 "we"?

18 A. Well, I'm referring to Vanderbilt. It
19 would be myself in this case.

20 Q. And who else? 11:01

21 A. It would just be me that looked at this.

22 Q. So it was your own curiosity that made you
23 do this, or was there some litigation or other
24 matter that prompted you to do this rather than --
25 well, you're not an expert epidemiologist; 11:01

1 correct?

2 A. That's correct.

3 Q. And you're not a medical doctor?

4 A. That's correct.

5 Q. And you don't have an advanced degree in 11:01
6 research methodology?

7 A. No.

8 Q. But you decided to look in the employees'
9 file, get their smoking information and put
10 together this slide; correct? 11:01

11 A. Yes.

12 Q. And has this slide been used in testimony
13 in litigation?

14 A. I don't believe so.

15 Q. Did you provide this to people like Honda 11:02
16 and others for their study information?

17 A. No. This would not have -- Honda did not
18 do an evaluation of smoking.

19 Q. Now, have you ever taken any medical
20 courses on smoking and asbestos? 11:02

21 A. No, I have not.

22 Q. Do you know what the synergistic effects
23 of smoking and asbestos are?

24 A. I understand there is a synergistic
25 effect. But to what degree or extent, I'm not 11:02

1 familiar.

2 Q. Why don't you tell us what your
3 understanding of the synergistic effect between
4 smoking and asbestos is.

5 A. Well, my understanding is that smoking can 11:02
6 retard a number of the pulmonary defenses against
7 any particular asbestos or talc dust or Kalen dust
8 or any particular -- so to the extent that smoking
9 can reduce the lung's natural ability to, you
10 know, clear a particulate and prevent particulate 11:03
11 from getting to the air exchange region, smoking
12 would enhance the effect of any dust exposure.
13 That's my understanding from what I have read.

14 Q. I'm going to move to strike that because
15 it was not responsive to my question. 11:03

16 What I asked you was, do you have any
17 particular understanding about the synergistic
18 effect between smoking and asbestos? And if so,
19 could you tell us about the synergistic effect
20 between smoking and asbestos particularly? 11:03

21 MR. RADCLIFFE: I object. That's not what
22 you asked.

23 But go ahead and answer the question.

24 THE WITNESS: Only to the extent that I
25 described, that asbestos is a particulate, a dust 11:03

1 like any other dust, and, as I described, smoking
2 would enhance the effect of exposure to that dust
3 or any other, as I understand it.

4 BY MS. ABRAMS:

5 Q. Have you -- are you aware that there is 11:04
6 literature that specifically addresses the
7 synergistic effect between smoking and asbestos?

8 A. I am aware there's literature that does
9 that.

10 Q. Have you read the specific literature that 11:04
11 addresses the specific synergistic effect between
12 smoking and asbestos?

13 A. I've read so much. But I would have to
14 say no.

15 Q. Have you talked to anybody about that? 11:04

16 A. I have.

17 Q. Who have you talked to about that?

18 A. I've talked to our pulmonary consultant in
19 this respect.

20 Q. Who is that? 11:04

21 A. That's Dr. Boehlecke, Brian Boehlecke,
22 B-o-e-h-l-e-c-k-e. That one I can spell.

23 Q. Did Dr. Boehlecke give you any indication
24 of what the multiplier effect was specifically
25 between smoking and asbestos in contributing to 11:04

1 the risk of lung cancer?

2 A. No. Specifically, he didn't.

3 Q. Do you understand that there is a
4 multiplier effect as opposed to an additive
5 effect? 11:05

6 MR. RADCLIFFE: I'm going to object.
7 Counsel, can you point me to the category where
8 you asked that Vanderbilt produce a witness to
9 respond to this line of questioning?

10 MS. ABRAMS: Well, for the record, he's 11:05
11 your witness. He brought a bunch of stuff. He's
12 talking about the impact of lung cancer and
13 smoking. You had him bring these documents. Now
14 I'm asking him about the documents. That's why
15 you brought him. That's what you asked him to 11:05
16 bring and that's what he's talking about.

17 MR. RADCLIFFE: No. I didn't ask him to
18 bring this. He decided to bring it upon his own.
19 He brought it. You can ask him questions about
20 it. But you've gone beyond the chart and you're 11:05
21 asking him questions about the synergistic effect
22 between smoking and asbestos. That's not on the
23 chart.

24 MS. ABRAMS: Are you done?

25 MR. RADCLIFFE: So I'd like you to point 11:05

1 me to the category where you asked that we produce
2 a witness to testify about this because I don't
3 believe he's been designated for this.

4 MS. ABRAMS: Are you telling him not to
5 answer? 11:06

6 MR. RADCLIFFE: I'm trying to meet and
7 confer.

8 MS. ABRAMS: I'm about done with this
9 right this. So this is my last question on that.
10 And if we can just get that done, we can move one. 11:06

11 MR. RADCLIFFE: What was the question?

12 MS. ABRAMS: I don't remember. You said
13 too much.

14 MR. RADCLIFFE: Can you scroll it back up?

15 MS. ABRAMS: He may have answered it.

16 Why don't you read it out loud so the
17 witness can hear.

18 (Record read.)

19 MR. RADCLIFFE: Same objection.

20 Go ahead and answer. 11:06

21 MS. ABRAMS: If you give a shorter answer,
22 we'll be done with this line of questioning.

23 THE WITNESS: There's an incentive.

24 BY MS. ABRAMS:

25 Q. Do you understand that there is a 11:06

1 multiplicative effect as opposed to an additive
2 effect with respect to the impact of smoking and
3 asbestos on the risk of lung cancer?

4 MR. RADCLIFFE: Same objection.

5 THE WITNESS: You know, I don't feel 11:07
6 comfortable --

7 BY MS. ABRAMS:

8 Q. You don't understand that or you do
9 understand that?

10 A. I just don't feel comfortable with the 11:07
11 answer. I think I told you my understanding is
12 that smokers would have -- my understanding is
13 that if you're a smoker, it retards the defenses
14 of the pulmonary system, which therefore --

15 Q. We already have that answer. 11:07

16 I don't mean to interrupt you, but your
17 lawyer wants us to move on. All I'm asking you
18 is, have you ever heard there's a multiplier
19 effect as opposed to an additive effect of the
20 smoking and asbestos with respect to the risk for 11:07
21 lung cancer?

22 MR. RADCLIFFE: Same objection.

23 BY MS. ABRAMS:

24 Q. You have or you haven't heard of it?

25 A. I've heard of it. 11:07

1 Q. Do you know any more than you've heard of
2 it?

3 A. No. I cannot speak intelligently about
4 it, so I prefer not to.

5 Q. Let's move on. 11:07

6 Let's see what else you brought in your
7 file.

8 A. Linked actually to that graph, which
9 essentially shows twice the smoking prevalence on
10 those miners and millers is a case control study 11:08
11 which I didn't see in the disk that was provided
12 to you.

13 Q. Whose study is that?

14 A. This is a study that was produced by
15 Dr. Gamble, John Gamble. It does speak to the 11:08
16 smoking issue.

17 Q. We'll probably get to the Gamble study.

18 A. Sure.

19 Q. What else did you bring?

20 A. There is also a graph. I always found 11:08
21 this particularly interesting. But what it is, is
22 a graph that compares the rate of lung cancer
23 among New York talc workers and Vermont talc
24 workers as well as the rate of anomaly respiratory
25 disease among Vermont talc workers and New York 11:09

1 talc workers.

2 And this is a table that was taken from a
3 paper written by Dr. Lamm.

4 Q. And you brought Dr. Lamm's paper?

5 A. I brought his paper because I didn't see 11:09
6 that on the disk either.

7 Q. Why don't you put that away and tell us
8 what else you brought.

9 A. And --

10 Q. Now, did you just create that slide that 11:09
11 came from the paper to produce to us today along
12 with the paper? What I'm asking you is, this copy
13 right here that says, "Vanderbilt talc with
14 amphibole and talc versus Vermont talc without
15 Lamm study," is that something that you made 11:09
16 before you came here today?

17 A. Yes.

18 Q. For today?

19 A. For today.

20 Q. Okay. That's all I wanted to know. 11:09

21 Now, what other -- you have some more
22 slides here.

23 A. Yes. Yes, I do. And again, this is in
24 the folder called "health references," so I tried
25 to put references that I thought were pertinent to 11:10

1 the issue of "so what's your experience with
2 people exposed to Vanderbilt talc."

3 Q. You have a slide about -- how do you say
4 his name?

5 A. Boehcleck. 11:10

6 Q. Boehcleck. And you have the Stanton
7 slide?

8 A. Yes. An animal study slide.

9 Q. You have the Smith slide?

10 A. Correct. 11:10

11 Q. You have an Addison/Davis slide.

12 You have a Wylie Mossman slide.

13 Are these slides that you've used in the
14 past, or is this something that you've created for
15 your testimony here today? 11:10

16 A. Those are slides that I created for
17 possible presentation in bits and pieces of those
18 I've used in some presentations.

19 Others I have not used yet. I just sort
20 of pulled them out because I thought they 11:10
21 summarized points that might be appropriate for
22 this deposition depending on what you ask.

23 Q. If you don't mind, just go through, and if
24 you have used them before, why don't you tell us
25 where you've used them, if you recall. 11:11

1 A. Well, this pulmonary review findings I
2 have made presentations on health experience of
3 our talc miners and millers in a number of places.

4 Q. For example?

5 A. For example, I think the most recent was 11:11
6 two or three years ago at the ASTM, American
7 Society of Testing Materials, there was a
8 conference called the Johnson conference in
9 Burlington, Vermont that is put on by what's known
10 as a D-22 committee. This is a committee in the 11:11
11 ASTM that produces asbestos analytical standards
12 and so forth.

13 And they ask for speakers on various
14 topics. And one year, three or four years ago, I
15 presented the topic on the medical experience of 11:11
16 anvil talc workers.

17 And this was one of the slides that I used
18 which is a summary of what Dr. Boehcleck finds in
19 looking at the pulmonary data through our medical
20 surveillance program at the mine essentially 11:12
21 saying what I'm looking at and seeing over a
22 period of all these years is not something as
23 indicative of an asbestos exposure at all.

24 Q. Did you present at that conference that
25 there have been mesotheliomas reported out of the 11:12

1 Vanderbilt mines?

2 MR. RADCLIFFE: Object to the form.
3 Argumentative.

4 BY MS. ABRAMS:

5 Q. Yes or no? 11:12

6 A. No, I didn't.

7 Q. And how about lung cancers post 1990, did
8 you talk about any lung cancers since the Honda
9 study?

10 A. No. 11:12

11 Q. Okay. Where else have you presented that
12 information?

13 A. I have to stop and think. I may have -- I
14 think I presented it during statements at the MSHA
15 hearings. They were revising their asbestos 11:12
16 standard and they asked for public comment.

17 Q. What does MSHA stand for?

18 A. Mine Safety and Health Administration.

19 Q. Did you tell them about the mesotheliomas
20 that have reported -- that have been reported out 11:13
21 of the Vanderbilt mines?

22 MR. RADCLIFFE: Objection. Argumentative.

23 THE WITNESS: No.

24 BY MS. ABRAMS:

25 Q. And what about the lung cancers since the 11:13

1 Honda study?

2 A. No.

3 MR. RADCLIFFE: Same objection.

4 BY MS. ABRAMS:

5 Q. Anywhere else that you've presented that 11:13
6 information?

7 A. I would have to stop and think.

8 Q. Have you ever given presentations at the
9 Defense Research Institute, the DRI?

10 A. No, I haven't. 11:13

11 Q. Why don't we go on and talk about what
12 else you brought there.

13 A. Well, this is a summary as you
14 indicated --

15 Q. The Stanton material, did you -- 11:13

16 A. Right.

17 Q. What -- have you presented your
18 understanding of Stanton's -- do you know what the
19 Stanton hypothesis is?

20 A. Yes. 11:14

21 Q. What is that?

22 A. Well, he's theorized that the most
23 important aspect to particulate exposure or fiber
24 risk has to do with dementia. So he did
25 experiments to test this hypothesis to see if -- 11:14

1 how valid that was. And he concluded that it was
2 a significant factor.

3 Q. Well, he had a hypothesis about the
4 dimensions of the fibers?

5 A. Yes. Longer than eight and less than a 11:14
6 quarter micrometer width was what he called his
7 critical dimension. So --

8 Q. Did he have an aspect ratio in there?

9 A. Well, whatever that is, you know, .25 to
10 8, whatever that would be. 11:14

11 Q. Well, what is it?

12 A. Well, it would certainly be over, I don't
13 know, 20 to 1 or something like that.

14 Q. So that's your understanding of Stanton is
15 20 to 1 aspect ratio? 11:14

16 A. No. Aspect ratio, as far as I'm
17 concerned, has zippo to do with risk.

18 Q. I'm asking you what Dr. Stanton reported
19 as the Stanton hypothesis. Can you tell me
20 what -- 11:15

21 A. Yes, yes. I think I just did. He
22 hypothesized that particle dimension and
23 durability were the most critical aspects to fiber
24 risk and that the dimension that he felt was most
25 critical was airborne exposure to fibers that 11:15

1 contain high prevalence of fibers that were longer
2 than eight and less than a quarter micrometer in
3 width.

4 He also mentioned that it seemed the
5 longer ones tended to have higher potency. And he 11:15
6 tested -- or he did some 72 different experiments.
7 These were --

8 Q. I just wanted to know what his hypothesis
9 was?

10 A. That's his hypothesis. 11:15

11 Q. Did he find -- was that his minimum
12 threshold that he thought would cause disease?

13 A. No. He --

14 MR. RADCLIFFE: Objection. Vague and
15 ambiguous. 11:16

16 Go ahead.

17 THE WITNESS: In his paper, I think he did
18 reference that particles that may be shorter or
19 fatter may contribute to the risk.

20 BY MS. ABRAMS: 11:16

21 Q. Did you present Dr. Stanton's -- the slide
22 at the same events that you've just described to
23 us?

24 A. Yes. And earlier, this information was
25 available for quite some time. So it was used in 11:16

1 OSHA hearings.

2 Q. Did you report on his hypothesis?

3 A. Yes. And the reason for this slide was
4 that among the 72 samples were two from two
5 Vanderbilt talcs. 11:16

6 Q. I understand that. But when you reported
7 on Dr. Stanton's theory, did you explain that he
8 also, in addition to his hypothesis said that
9 shorter and fatter fibers also posed a risk?

10 MR. RADCLIFFE: Objection. Argumentative. 11:16
11 Vague and ambiguous.

12 THE WITNESS: No. I reported what his
13 conclusion was which was that particles as
14 critical dimensions stated was a quarter
15 micrometer longer than eight, and that's 11:17
16 essentially what's reflected on that center.

17 BY MS. ABRAMS:

18 Q. Okay. And then you have a slide on Dr.
19 Smith's study. For Dr. Smith's study, did you use
20 this slide at the events that you described to us? 11:17

21 A. Yes.

22 Q. I'm sure we'll get to Dr. Smith's study,
23 so I'd actually like to get through your file in
24 the next little bit. Addison Davis, peritoneal
25 injection study. Is that something that was 11:17

1 produced to us?

2 A. I don't know.

3 Q. Did you see it on the disk?

4 A. I did, but I didn't have a lot of -- I
5 scanned it very quickly. It may have been there. 11:17

6 Q. When was this published?

7 A. I think as I indicated on there, this is
8 an interim report, I think. This was actually
9 reported at the OSHA hearings in 1990, and this
10 was just prior to their publication. 11:18

11 And, again, this is basically was an
12 experiment to contrast tremolite asbestos with
13 tremolite prismatic particles or cleavage
14 fragments. It did not utilize Vanderbilt talc or
15 the tremolite in Vanderbilt talc. But it did -- 11:18
16 it was a study that specifically addressed the
17 difference between tremolite asbestos and
18 tremolite cleavage material.

19 MS. ABRAMS: Could you read the question
20 back, please. 11:18

21 (Record read.)

22 MS. ABRAMS: I'll move to strike the
23 answer as nonresponsive.

24 THE WITNESS: We can get you the published
25 paper. 11:18

1 BY MS. ABRAMS:

2 Q. Thank you.

3 And then Wylie Mossman, 1997, did you use
4 this slide at the talks that you described to us?

5 A. Well, certainly not at the OSHA hearings 11:19
6 because it was published after 1990.

7 Q. Correct.

8 A. But I've used it at the other
9 presentations that I mentioned.

10 Q. We're going to copy your file and review 11:19
11 it and then we'll ask you some questions about it
12 later.

13 A. Sure.

14 Q. You brought another file entitled
15 "Mouldene talc." Just let me ask you, you have a 11:19
16 health file in your office?

17 A. Yes.

18 Q. Is that file about the size of that stack
19 of papers up there, or more or less?

20 A. The way I have it divided is I have health 11:19
21 studies that are specific to Vanderbilt talc that
22 would be human, animal and cell.

23 I have another file that are health
24 studies that are not specific to Vanderbilt talc
25 but have some link or bearing to the issues that 11:20

1 pertain to Vanderbilt talc.

2 And then I have a third folder that
3 contains summary evaluations, health summary
4 evaluations from various researchers on the status
5 of the scientific literature as it pertains to 11:20
6 cleavage fragments and specifically to Vanderbilt
7 talc, has references to Vanderbilt talc.

8 Q. How big are these files?

9 A. If you put those three files together,
10 they would be maybe 7, 8 inches. 11:20

11 Q. Okay. So is that bigger or smaller than
12 that stack?

13 A. I don't know. You'd have to measure it.
14 That is what I'm telling you it would be.

15 Q. So you don't have an opinion as to whether 11:20
16 it would be more or less than the papers sitting
17 on the table?

18 A. Well, rather than speculate on distances
19 by a ruler, I'd probably want to look at the
20 documents and tell you whether they're there or 11:20
21 not.

22 Q. Okay. We'd be happy to have you do that.
23 So we'll take a break and you can look through the
24 documents and let us know if there's anything
25 missing; okay? 11:21

1 A. Fine.

2 Q. We'd appreciate that.

3 MR. RADCLIFFE: Anything missing from
4 what?

5 MS. ABRAMS: From the pile that we got. 11:21

6 MR. RADCLIFFE: The pile you got was
7 responsive to what you asked for.

8 MS. ABRAMS: So -- well, I'm sure we asked
9 for everything that had to do with health.

10 BY MS. ABRAMS: 11:21

11 Q. But -- you've been designated as an expert
12 in this case, do you know that?

13 A. No.

14 Q. Well, I'm sure we're going to see your
15 files. 11:21

16 A. You're welcome to.

17 Q. Because you're going to testify as an
18 expert. I think we're entitled to all of them.

19 What other files do you have in your
20 office -- 11:21

21 MR. RADCLIFFE: Well, if you're entitled
22 to all of them, you are. But you haven't asked
23 for all of them. You asked for very specific
24 documents.

25 MS. ABRAMS: Well, it's a matter of record 11:21

1 what we asked for.

2 MR. RADCLIFFE: Right. So if you're
3 implying now that you did ask for something in the
4 past, but you didn't, that's not accurate.

5 MS. ABRAMS: We have asked Vanderbilt for 11:21
6 basically everything in your possession. It's in
7 our document request, it's in our COR PMK request.
8 I don't know if you've reviewed all that, but I
9 have, and we basically asked for all of it.

10 MR. RADCLIFFE: I can't agree with that. 11:22
11 I can't agree that you've asked for everything in
12 Vanderbilt's possession.

13 MS. ABRAMS: We don't have to agree.
14 We're just going to ask the questions here.

15 MR. RADCLIFFE: Sure. And I'm asking if 11:22
16 you want to point me to the category where you've
17 asked --

18 MS. ABRAMS: If you want to tell him not
19 to answer, just tell him not to answer.

20 MR. RADCLIFFE: I'm just trying to meet 11:22
21 and confer with you.

22 MS. ABRAMS: I've met and conferred with
23 you also.

24 BY MS. ABRAMS:

25 Q. Excuse me. I forgot these. These were on 11:22

1 the bottom here.

2 A. They're just duplicates of what we
3 mentioned already.

4 Q. These are extra copies of the lung
5 cancers? 11:22

6 A. Yes.

7 Q. And do you know why you brought extra
8 copies of the lung cancers?

9 A. In case you wanted to talk about them in
10 some detail, then you'd have it in front of you. 11:22

11 Q. So you won't mind if I just pull one of
12 these out of here right now?

13 A. Of course not.

14 Q. Okay. Now you have a file called
15 Mouldene. Where did you find these documents? 11:22

16 A. Well, I maintain a file on all our
17 products and talc being one. And that file
18 contains materials that -- correspondence, memos,
19 inquiries by customers that have any type of
20 health link to it. 11:23

21 So I went to that file and I looked for a
22 file labeled "Mouldene," and that's the -- with a
23 couple of exceptions, that's the material that was
24 in it. The exceptions are copies of the
25 PowerPoint slides that pertain to Mouldene, I 11:23

1 believe.

2 Q. So is it correct, Mr. Kelse, that
3 everything in your office that you possess with
4 respect to Mouldene talc is in this file?

5 MR. RADCLIFFE: Objection. Overly broad, 11:23
6 vague. Ambiguous.

7 Go ahead.

8 THE WITNESS: That's my understanding,
9 that's all I had.

10 BY MS. ABRAMS: 11:24

11 Q. Now, I'm not going to go over all of your
12 qualifications and all of that because you've
13 testified to that in other places and you don't
14 need to -- we don't need to go through your entire
15 job history. I'm sure you don't mind that. 11:24

16 A. Not at all.

17 Q. So I just want to move on and try to get
18 to some of the things that we are here to talk
19 about today.

20 One of the things we're here to talk about 11:24
21 is Vanderbilt's records because you've been
22 designated as the custodian of records for various
23 categories of things that we've asked for.

24 I think we have established already that
25 you did not specifically go through any of your 11:24

1 files other than to look for Mouldene information
2 and the few things that we just talked about to
3 find documents that were responsive to anything in
4 our request for person most qualified and
5 custodian of records; is that fair? 11:25

6 MR. RADCLIFFE: Objection. Misstates
7 prior testimony.

8 THE WITNESS: Yeah, it's as I stated. I
9 did look through the disk very briefly and
10 identified a couple documents that I thought 11:25
11 should be included, and that's -- I brought a
12 couple of those along, as I indicated to you. But
13 beyond that, that's the extent.

14 MS. ABRAMS: Just move to strike and ask
15 you to read the question back. 11:25

16 (Record read.)

17 MR. RADCLIFFE: Objection. Misstates
18 prior testimony. Argumentative. And it's asked
19 and answered.

20 BY MS. ABRAMS: 11:26

21 Q. You can answer. Did you look through your
22 documents specific to this case was the question.

23 MR. RADCLIFFE: Objection. Same
24 objections.

25 THE WITNESS: Only to the extent of what I 11:26

1 produced here for you.

2 BY MS. ABRAMS:

3 Q. So you actually looked in your files for
4 these things, but you didn't look other than that
5 for anything else responsive to Exhibit 1? 11:26

6 A. No, I was not --

7 MR. RADCLIFFE: That misstates prior
8 testimony. He told you that he looked through the
9 disk. He glanced at what's on the disk.

10 MS. ABRAMS: I don't want to argue with 11:26
11 him. I'm talking to him. So please don't
12 interrupt or I'm going to get a court order to not
13 have colloquy and not have discussion.

14 So I ask a question, I'd like you to --

15 MR. RADCLIFFE: We can do that as long as 11:26
16 you are not misleading.

17 MS. ABRAMS: You need to not talk over me
18 and just wait one at a time.

19 Could you read the question back, please.

20 (Record read.) 11:27

21 MR. RADCLIFFE: Same objections.

22 BY MS. ABRAMS:

23 Q. Exhibit 1 being this document that I don't
24 believe you reviewed until you got here today;
25 correct? 11:27

1 A. That's right.

2 Q. So you didn't look at Exhibit 1 and then
3 go through your files and look for the things
4 responsive in Exhibit 1; is that correct?

5 A. Maybe I can help you with this. 11:27

6 Q. No. I just want an answer to that
7 question.

8 A. I'm going to give you an answer. My
9 answer is no one asked me to look through this and
10 produce documents that were asked for here. 11:27

11 Q. That's fine.

12 A. This is a legal case, so I'm assuming
13 lawyers, you know, have done that because they
14 sure as heck have gone through my files
15 extensively. 11:27

16 Q. So the lawyers, then, are the custodians
17 for the documents that we're talking about; is
18 that correct?

19 MR. RADCLIFFE: Objection. Argumentative.

20 THE WITNESS: They come from my files. 11:27

21 BY MS. ABRAMS:

22 Q. That were copied from your files four or
23 five years ago; correct?

24 They have them in their possession, they
25 get the notice, they go through them, they produce 11:28

1 the documents; is that how it works?

2 A. My understanding is that they have a
3 record of my documents that I maintain, and I am
4 not sure about whatever updates they may have made
5 to those documents. 11:28

6 Q. What I'm asking you is that when this
7 document came in, the lawyers were the ones that
8 went through it, picked out what to send and sent
9 it. You didn't do that part; correct?

10 A. That's correct. 11:28

11 Q. Do you know which lawyer particularly does
12 that kind of thing?

13 A. I believe it was someone at Hawkins &
14 Parnell.

15 Q. Do you know the name of that person? 11:28

16 A. Probably Peter York. But, again, that's
17 just a --

18 MR. RADCLIFFE: Don't speculate.

19 THE WITNESS: Then I won't.

20 BY MS. ABRAMS: 11:28

21 Q. I made a little chart because Mr. Chusid
22 kindly sent us a letter and said what you were
23 going to be talking about.

24 I don't know where my chart is, that's why
25 I'm flipping through the papers. 11:29

1 So I need to get a copy of the letter.

2 MR. RADCLIFFE: You have a document that
3 you took from his file underneath your pages. Can
4 we make sure that that --

5 MS. ABRAMS: He gave that to me. 11:29

6 MR. RADCLIFFE: We're producing it today.

7 MS. ABRAMS: I know, but he's got three
8 more copies and we're going to get his folder.
9 He's got three copies of this lung cancer document
10 in his folder and we're going to have a copy of 11:29
11 it, and it's all going to be marked. Okay?

12 MR. RADCLIFFE: Okay. As long as it's
13 marked.

14 MS. ABRAMS: He gave me this as a little
15 gift so I can have it for myself. Thank you. 11:29

16 So if you're objecting to that, I'll give
17 it back to him. But I just want --

18 MR. RADCLIFFE: I just want to make sure
19 it's marked. That's all I'm asking.

20 MS. ABRAMS: I'm not marking it for the 11:29
21 record right this second. We're going to mark all
22 of this for the record.

23 MR. RADCLIFFE: As long as we have an
24 agreement that that document will be marked, I'm
25 good. 11:29

1 MS. ABRAMS: I know you want it to be
2 marked.

3 BY MS. ABRAMS:

4 Q. Okay. Now, you are not here to talk about
5 your document retention policies, so we'll move on 11:29
6 from there.

7 MS. ABRAMS: Now, I just want to represent
8 that, Mr. Chusid, when you sent the letter, you
9 sent it in reference to the PMK designations and
10 not the COR designations because the numbering is 11:30
11 different.

12 So we just have to go through this and I'm
13 just going to ask him whether he's a COR. If you
14 have helpful information on that, you can let me
15 know; okay? 11:30

16 MR. CHUSID: The letter that I sent you,
17 the second paragraph goes through the second
18 category of documents.

19 MS. ABRAMS: Right. It tracks the person
20 most qualified categories which are not the same 11:30
21 as -- the same numbering as the COR.

22 MR. CHUSID: Right. To the extent that
23 the categories are similar or identical that Mr.
24 Kelse is the custodian of records --

25 MS. ABRAMS: They may or may not be, which 11:31

1 is what I'm referring to.

2 You help me along here if he's not the
3 right person; okay?

4 So I'm going to go through this document
5 which I'm marking as Exhibit 1. 11:31

6 Apparently, Mr. Vanderbilt, Paul
7 Vanderbilt, has been designated as the person most
8 knowledgeable and custodian of Vanderbilt's record
9 retention policy; is that your understanding, that
10 he's the person best to talk to about that? 11:31

11 MR. RADCLIFFE: Objection. Beyond the
12 scope of the deposition.

13 THE WITNESS: Again, I really don't know
14 what those terms mean. I expect he was asked to
15 appear to answer questions that pertain to that, 11:31
16 so whatever that is.

17 BY MS. ABRAMS:

18 Q. Is that something that you know about, the
19 record retention policy?

20 MR. RADCLIFFE: He's not designated as the 11:31
21 person.

22 THE WITNESS: No. My job is occupational
23 health.

24 BY MS. ABRAMS:

25 Q. Now, you brought a file about Mouldene, 11:32

1 but you have not been designated as the person
2 most knowledgeable about the presence of the
3 asbestos in Mouldene talc.

4 Are you prepared to talk about that today?

5 A. Only within the confines of what's in my 11:32
6 file, but those are the documents, I guess the
7 term is "speak for themselves," but I've read
8 them.

9 MR. RADCLIFFE: Can I make a correction
10 here, that I'm looking at Mr. Chusid's letter? 11:32

11 MS. ABRAMS: Sure.

12 MR. RADCLIFFE: No. I'm sorry. I forgot
13 that there was no No. 3. I apologize.

14 MS. ABRAMS: It's a little bit mixed up
15 which is why I have to do this a little bit -- 11:32

16 MR. RADCLIFFE: Mr. Kelse is not
17 designated for No. 2. He is designated for No. 4.

18 MS. ABRAMS: For No. 2 of the --

19 MR. RADCLIFFE: The PMQ.

20 MS. ABRAMS: Okay. Right. 11:33

21 BY MS. ABRAMS:

22 Q. Right. And you're going to talk about
23 studies on the presence of asbestos in Mouldene
24 talc.

25 MR. RADCLIFFE: He is designated for that. 11:33

1 So he is designated to testify about studies on
2 Mouldene talc.

3 BY MS. ABRAMS:

4 Q. Is it your understanding that with respect
5 to everything in R.T. Vanderbilt's possession 11:33
6 regarding studies of Mouldene talc is in this
7 folder?

8 A. It's what I have.

9 Q. Let's just try to talk about -- a little
10 bit about some background on this Mouldene issue. 11:33

11 Do you know what Mouldene talc is?

12 MR. RADCLIFFE: Objection to the form.
13 Vague and ambiguous. The preamble is not a
14 question.

15 THE WITNESS: Yes, I know what it is based 11:34
16 upon the information in my file. Can I -- that's
17 why I brought the file so I can look back at it
18 because Mouldene was a product that was sold, a
19 material that was sold by Vanderbilt as these
20 files indicate, for four or five years in the mid 11:34
21 '70s, so that predates me by almost 20 years.

22 MR. RADCLIFFE: I object. Nonresponsive.

23 THE WITNESS: Could you give me that
24 question then again?

25 MS. ABRAMS: You have to let him finish 11:34

1 his answer and then you can make your objection.

2 You're not supposed to coach the witness.

3 MR. RADCLIFFE: I'm not coaching the
4 witness.

5 MS. ABRAMS: Could you read the question 11:34
6 and answer back.

7 (Record read.)

8 MR. RADCLIFFE: Same objections.

9 BY MS. ABRAMS:

10 Q. Do you know where it got the name 11:35
11 Mouldene?

12 A. I have a pretty good idea, but I'm not
13 going to speculate. It wasn't a Vanderbilt name.

14 Q. It was from International Talc; correct?

15 A. Yes, that's my understanding. 11:35

16 Q. And it came out originally from
17 International Talc.

18 Do you know where they got the name
19 from?

20 A. No. 11:35

21 Q. Do you have any idea, an estimate of why
22 they called it Mouldene?

23 A. I have no idea.

24 Q. Do you know, is there -- are there -- is
25 there information anywhere on the constituent 11:35

1 elements of Mouldene talc?

2 A. Yes, there is.

3 Q. Where is that information?

4 A. I rely on this one analysis by Dr. Wylie
5 dated July 28, 1989, as the only analytical report 11:36
6 I had in my file.

7 Q. That was a retest, wasn't it, Dr. Wylie
8 was doing a retest of some material?

9 A. I'm not sure what you mean by "retest."
10 She did an analysis of Mouldene. 11:36

11 Q. Where did she get it from?

12 A. It was sent to her by Dr. Thompson.

13 Q. Where did he get it?

14 A. I don't know.

15 Q. Had that sample ever been tested before? 11:36

16 A. I don't know. I have no record of any
17 other tests.

18 Q. Do you know where Mouldene talc came from?

19 A. It came from a mine that's known as
20 Talcville. 11:36

21 Q. Where is Talcville?

22 A. It's in the Edwards Belknap mining
23 district in upstate New York, roughly 15 miles to
24 the northeast of the town of Gouverneur, New York.

25 It's approximately four or five miles from 11:37

1 the mine that Vanderbilt has predominantly used
2 over the years. The Arnold pit. It's four or
3 five miles to -- I think it's to the west of
4 there.

5 Q. Do you have in your office anywhere like a 11:37
6 geo map or some kind of map that shows exactly
7 where that mine is in relation to the other
8 Vanderbilt mines?

9 A. Yes, I do.

10 MR. RADCLIFFE: Objection. Beyond the 11:37
11 scope.

12 BY MS. ABRAMS:

13 Q. And what do you call that?

14 MR. RADCLIFFE: Objection. Beyond the
15 scope. 11:37

16 THE WITNESS: I don't know what the exact
17 name on it is. It indicates the various mining
18 companies that operated and where their mines were
19 located over decades.

20 BY MS. ABRAMS: 11:38

21 Q. If I were to ask for that document, what
22 would I ask for so that Vanderbilt would know what
23 I was asking for?

24 MR. RADCLIFFE: Same objection.

25 THE WITNESS: Well, if you ask me, you 11:38

1 could just say a map indicating the sites of
2 mining facilities, historical mining sites in the
3 district.

4 BY MS. ABRAMS:

5 Q. Do you have a geological map also that 11:38
6 would show the constituents of the minerals in the
7 ground in the various mines?

8 A. I have one for the area that we have
9 historically mined, the Arnold pit and the
10 underground mine. I don't think I have anything 11:38
11 that extends over to Talcville.

12 Q. Do those things exist somewhere else, for
13 example, in files of mining agencies?

14 A. I don't know for certain.

15 Q. Do you know, does -- does Vanderbilt -- 11:39
16 well, does that mine have a designation, the
17 Talcville mine?

18 A. I believe it was referred to as Mine 3,
19 but -- rather than the numbers, I would just name
20 it as Talcville, then there's no confusion as to 11:39
21 what you're talking about.

22 Q. If we looked at historical documents and
23 they showed Mine 3, was there a mill associated
24 with Mine 3 that would have milled the material?

25 MR. RADCLIFFE: Objection. Beyond the 11:39

1 scope.

2 BY MS. ABRAMS:

3 Q. If you know.

4 A. Well, International Talc had a mill in
5 which it processed its ore, so obviously that 11:40
6 would have been a mill that processed ore from
7 Talcville, and R.T. Vanderbilt purchased all the
8 assets of International Talc in 1974 which would
9 have included the mill as well.

10 Q. Does that mill still operate? 11:40

11 A. No, it does not.

12 Q. Did that mill -- after Vanderbilt bought
13 the mill, did it have a designation? Was it
14 Mill 3?

15 MR. RADCLIFFE: Objection. Beyond the 11:40
16 scope.

17 MS. ABRAMS: To match Mine 3, if you know.

18 MR. RADCLIFFE: Same objection.

19 THE WITNESS: I don't recall what the
20 designation is. It was a different mill obviously 11:40
21 than the one Vanderbilt has.

22 BY MS. ABRAMS:

23 Q. So does Vanderbilt have a Mill No. 3?

24 MR. RADCLIFFE: Same objection. Counsel,
25 none of these questions are within the matters on 11:40

1 which you requested a witness. Mr. Kelse has not
2 been designated as the person most knowledgeable
3 on these issues.

4 MS. ABRAMS: He's designated to talk about
5 Mouldene studies. 11:41

6 MR. RADCLIFFE: He's designated in
7 Response No. 4, "Studies on the presence of
8 asbestos in the Mouldene talc."

9 MS. ABRAMS: Well, in order to study
10 Mouldene talc, you need to know where it comes 11:41
11 from and what it is. So I'm asking him for his
12 knowledge of that and see if he has foundational
13 knowledge about Mouldene talc.

14 BY MS. ABRAMS:

15 Q. You can answer the question. 11:41

16 MR. RADCLIFFE: I disagree with your
17 explanation.

18 MS. ABRAMS: Well, you're not the judge.
19 Why don't you read the question back.

20 (Record read.) 11:41

21 THE WITNESS: And my answer is, I'm not
22 sure. We can get you that information. There's
23 no secret.

24 BY MS. ABRAMS:

25 Q. I'm sure not. 11:41

1 A. I just don't know what it was.

2 Q. I think what I was asking you was whether
3 Vanderbilt has a Mill 3 also, if you know?

4 MR. RADCLIFFE: Same objection.

5 THE WITNESS: Well, we had a second mill 11:42
6 and it was devoted to the processing of
7 wollastonite.

8 BY MS. ABRAMS:

9 Q. Was it Mill 3, though?

10 A. It might have been. I don't know for 11:42
11 certain. But we can check that.

12 Q. I just don't want to be confused. When I
13 read documents that have studies that talk about
14 Mill 3, I want to know if that's the IT mill or
15 not. 11:42

16 Do you know the answer to that?

17 A. As I said, I'm not absolutely sure. I'd
18 rather go back, find out, so I don't give you an
19 incorrect answer. But yes, there was definitely a
20 mill that was devoted to the processing of talc 11:42
21 that International owned.

22 Q. What do you know about -- what is your
23 understanding of -- strike that.

24 When Vanderbilt bought the International
25 Talc operation, which is category -- I don't know, 11:42

1 you guys produced the sales agreement -- the
2 purchase agreement. You've seen that; right? The
3 Vanderbilt purchase of IT?

4 A. No.

5 Q. You have not seen that? 11:43

6 A. I have not seen that.

7 Q. Do you know, does Vanderbilt still own the
8 Mine 3?

9 A. They still own the property, yes.

10 MR. RADCLIFFE: Objection, beyond the 11:43
11 scope.

12 BY MS. ABRAMS:

13 Q. And that's not functioning anymore?

14 A. That's correct.

15 MR. RADCLIFFE: Same objection. 11:43

16 BY MS. ABRAMS:

17 Q. Have you ever gone there?

18 MR. RADCLIFFE: Same objection.

19 THE WITNESS: Yeah. I visited the
20 property years and years ago. 11:44

21 BY MS. ABRAMS:

22 Q. When was that?

23 A. In the late '80s, '88.

24 MR. RADCLIFFE: Same objection.

25 BY MS. ABRAMS: 11:44

1 Q. Why did you go there?

2 MR. RADCLIFFE: Same objection.

3 THE WITNESS: Out of curiosity.

4 BY MS. ABRAMS:

5 Q. What did you see? 11:44

6 MR. RADCLIFFE: Same objection.

7 THE WITNESS: Just the surface. This was
8 an underground mine and the underground workings
9 were closed, they were not accessible.

10 MR. RADCLIFFE: We've been going for more 11:44
11 than an hour. When you reach a convenient place,
12 I'd like to take a break.

13 MS. ABRAMS: Sure.

14 BY MS. ABRAMS:

15 Q. So you can't get into the mine? 11:44

16 MR. RADCLIFFE: Same objection.

17 THE WITNESS: No, you cannot.

18 BY MS. ABRAMS:

19 Q. Are there buildings on the property?

20 A. No. 11:45

21 MR. RADCLIFFE: Same objection.

22 BY MS. ABRAMS:

23 Q. So it's just a hole in the ground?

24 MR. RADCLIFFE: Same objection.

25 THE WITNESS: Yeah. There is not even a 11:45

1 hole. It's hard to describe. You know, some
2 portions of it have -- may have been leveled so
3 that you couldn't gain access because you wouldn't
4 want people going there and injuring themselves,
5 climbing around on the rocks. 11:45

6 BY MS. ABRAMS:

7 Q. Is there a fence around it, for example?

8 A. There is I think a partial fence, but I
9 don't know exactly.

10 Q. Is it posted Private Property anywhere? 11:45

11 A. I don't remember seeing a sign, but
12 typically we would do that, so it probably is.

13 MR. RADCLIFFE: Same objection.

14 BY MS. ABRAMS:

15 Q. There's no park on it or something like 11:45
16 that?

17 A. Park?

18 Q. Public space that's --

19 A. Oh, no, no. It's isolated.

20 MR. RADCLIFFE: Same objection. 11:45

21 BY MS. ABRAMS:

22 Q. What about Mill 3, where was that?

23 MR. RADCLIFFE: Objection. We haven't
24 established there is a Mill 3.

25 MS. ABRAMS: I'm sorry, let me withdraw 11:46

1 that question.

2 BY MS. ABRAMS:

3 Q. The old International Talc mill in
4 Talcville, was that right next to the mine?

5 MR. RADCLIFFE: Same objection. 11:46

6 THE WITNESS: It was -- it's a couple of
7 miles away in the direction of the town of
8 Gouverneur. I don't know the state highway, but
9 it's down the road.

10 BY MS. ABRAMS: 11:46

11 Q. Have you ever visited there?

12 A. Oh, yes.

13 MR. RADCLIFFE: Same objection.

14 BY MS. ABRAMS:

15 Q. Why have you visited there? 11:46

16 A. Well, it was a functioning, operating mill
17 until about six or seven years ago. It was
18 dedicated to processing wollastonite, not talc.

19 Q. So the old IT mill that used to process
20 Mouldene was used by Vanderbilt subsequent to 11:46
21 their purchase to process wollastonite; is that --

22 MR. RADCLIFFE: Objection.

23 THE WITNESS: Yes. At some point it was
24 converted just for that purpose.

25 MR. RADCLIFFE: Same basis. 11:47

1 BY MS. ABRAMS:

2 Q. Do you have any idea when? Or what
3 decade?

4 A. Oh, it would have been the late '70s,
5 maybe '77, '78. 11:47

6 BY MS. ABRAMS:

7 Q. Could you spell "wollastonite"?

8 A. W-o-l-l-a-s-t-o-n-i-t-e. I think that's
9 right.

10 Q. And have you ever -- do they have storage 11:47
11 facilities of any kind on that site?

12 MR. RADCLIFFE: Objection. Beyond the
13 scope.

14 THE WITNESS: Storage facilities for
15 wollastonite? 11:47

16 BY MS. ABRAMS:

17 Q. Not for product but for documents and
18 things like that. Are there rooms? Are there
19 files? Are there boxes of papers, things like
20 that. 11:47

21 A. At that old International mill?

22 Q. Um-hum.

23 A. I don't think so.

24 Q. Do you know?

25 A. I don't know for certain. 11:47

1 Q. Have you ever looked at that mill facility
2 to see if there are any old International Talc
3 documents?

4 A. No, I have not.

5 Q. Do you know if anyone else has? 11:48

6 A. I don't.

7 Q. Do you know if there are any International
8 Talc historical documents housed anywhere at
9 R.T. Vanderbilt?

10 A. I would not be -- in the course of my job, 11:48
11 that's not something that I would have knowledge
12 of.

13 Q. So is it fair to say that with respect to
14 International Talc documents regarding the
15 Mouldene that was mined out of that mine, that 11:48
16 other than the few documents you have in your
17 file, you don't have possession of any of the
18 International Talc files or documents that they
19 inherited from International Talc -- that
20 Vanderbilt inherited from International Talc; is 11:48
21 that fair?

22 MR. RADCLIFFE: Objection. Assumes facts
23 not in evidence. Argumentative.

24 THE WITNESS: What I have is only what I
25 brought. 11:49

1 BY MS. ABRAMS:

2 Q. So you don't have any historical
3 International Talc files, other than the few pages
4 that you brought with you; correct?

5 A. That's correct. 11:49

6 Q. And you don't know one way or the other
7 whether any such files currently exist at
8 Vanderbilt; correct?

9 A. That's correct.

10 Q. With respect to studies of the presence of 11:49
11 asbestos in Mouldene talc, other than what you may
12 have in your file here, you have not searched
13 anywhere or asked anyone else at Vanderbilt if
14 they have such information to produce here today;
15 correct? 11:49

16 A. That would be correct.

17 Q. So if you were looking for studies on the
18 presence of asbestos in Mouldene talc, other than
19 in your office, for a product that has not been
20 produced, my understanding is, since 1976; is that 11:50
21 correct?

22 A. That's my understanding.

23 Q. Where at Vanderbilt, other than your
24 office, would you look for those documents?

25 A. Other than my office, there's only one 11:50

1 other area, and that would be in Dr. Thompson's
2 mineral lab. It would be in his records.

3 Q. In his mineral lab? Where is Dr.
4 Thompson's mineral lab?

5 A. It's in Norwalk in Connecticut in the 11:51
6 research development center -- building.

7 Q. Is there a lab at the current -- strike
8 that.

9 The mill that used to be an IT mill that
10 now is a Vanderbilt mill processing 11:51
11 wollastonite -- did I say that right?

12 A. Yes, you did.

13 Q. Can we call that Mill 3?

14 A. We can, yes.

15 MR. RADCLIFFE: Objection. 11:51

16 BY MS. ABRAMS:

17 Q. That's Vanderbilt's Mill 3; right?

18 MR. RADCLIFFE: Well, no. There's no
19 evidence to that -- you're asking him if you can
20 call it Mill 3. That doesn't mean that that's the 11:51
21 name of it.

22 BY MS. ABRAMS:

23 Q. Okay. Is that called Mill 3 by
24 Vanderbilt?

25 MR. RADCLIFFE: Asked and answered. 11:51

1 THE WITNESS: Yes. I mean, I asked that
2 we refer to it as International so we don't get
3 confused because these numbers have been -- can
4 get confusing.

5 BY MS. ABRAMS:

11:52

6 Q. That's fine. The old International Talc
7 mill, does that have a lab on the facility?

8 A. Not to my knowledge.

9 Q. Are there any other lab facilities
10 currently -- inhouse lab facilities that
11 Vanderbilt has other than Dr. Thompson's lab, to
12 your knowledge?

11:52

13 A. There is a quality laboratory that exists
14 as part of the Gouverneur talc operation.

15 Q. Where is that?

11:52

16 A. That's adjacent to Mill No. 1 which is,
17 you know, Vanderbilt's original mill, talc mill,
18 Belknap, New York.

19 Q. I'm going to ask you one more question,
20 then we're going to take a break.

11:53

21 The Arnold pit, that was also bought from
22 International Talc; correct?

23 A. That's correct.

24 Q. Couple more questions. Is there a mill
25 associated with the Arnold pit?

11:53

1 A. That would be Mill No. 1.

2 Q. And is that -- that's where the lab is;
3 right?

4 A. Yes.

5 Q. Now, did you -- have you been to Mill 11:53
6 No. 1?

7 A. Oh, yes.

8 Q. With respect to the case that we're
9 talking about now, Mr. Weston's case, did you go
10 to that mill to see if you could find any 11:53
11 International Talc -- old International Talc
12 historical documents at Mill No. 1?

13 A. No.

14 Q. With respect to any studies of Mouldene,
15 in gathering any of that information, did you make 11:54
16 any effort to contact any people that used to work
17 at International Talc to look for that
18 information?

19 A. I'm sorry, what information?

20 Q. Looking for studies about Mouldene or any 11:54
21 other information about Mouldene.

22 A. No, I did not.

23 Q. Do you know currently today, as we sit
24 here today, any living ex-employees of
25 International Talc, whether or not they may have 11:54

1 subsequently worked for Vanderbilt?

2 A. Yes. The most obvious would be actually
3 the plant manager currently of that mine and mill
4 in upstate New York. The name is Dana Putman,
5 P-u-t-m-a-n. 11:55

6 Q. And he's the plant manager of what?

7 A. Gouverneur Talc Company.

8 Q. Where is he located?

9 A. He's located in Gouverneur, New York.

10 Q. Is his office at Mill 1? 11:55

11 A. Yes, it is.

12 Q. Do you know what his job was at
13 International Talc?

14 A. No, I don't.

15 Q. How do you know he worked there? 11:55

16 A. Because he's told me a number of times and
17 it's in his personnel records.

18 Q. Have you talked to him with respect to
19 knowing that you were going to testify about a
20 Mouldene case -- about Mouldene talc? 11:55

21 A. No, I haven't.

22 Q. Any other people that you know of that may
23 have historically worked for International Talc
24 that now work for Vanderbilt or that are retired
25 or otherwise? 11:56

1 A. Not off the top of my head, but those
2 records would be available.

3 Q. How would I find that out?

4 A. You would -- the way I would find it out
5 is I would call the plant and ask for a list of 11:56
6 current or prior employees that worked for
7 International Talc. And they would actually be
8 able to produce that.

9 Q. How would they do that?

10 A. When you apply for a job, you fill out an 11:56
11 application and you write in your prior work
12 history.

13 Q. So they would have to go through the
14 employees' records?

15 A. Personnel records. 11:56

16 Q. And they could do that?

17 MR. RADCLIFFE: Object. This is beyond
18 the scope.

19 THE WITNESS: It would be possible to do
20 that, yes. 11:57

21 MS. ABRAMS: Why don't we take a break.

22 THE VIDEOGRAPHER: This is the end of Tape
23 No. 1 in the deposition of John Kelse.

24 And we're going off the record at 11:55
25 a.m. 11:57

1 (Lunch recess taken.)

2 THE VIDEOGRAPHER: This is the beginning
3 of Tape No. Two, August the 10th, 2009, the
4 deposition of John Kelse.

5 We're back on the record at 1:12 p.m. 13:14

6 BY MS. ABRAMS:

7 Q. Good afternoon, Mr. Kelse.

8 A. Good afternoon.

9 Q. I would like to ask you to look at
10 Exhibit 1, which is the notice of deposition. I'd 13:14
11 like to go through some of the categories with
12 you.

13 I want to start with No. 48, which is a
14 category that I've been told that your attorneys
15 are objecting to and have not produced any 13:14
16 information based on "it's argumentative,
17 irrelevant and not calculated to lead to the
18 discovery of admissible evidence," none of which
19 are proper objections for not producing documents.
20 So with that meet and confer, I'd like to ask 13:15
21 you --

22 MR. RADCLIFFE: I don't agree that that
23 was a meet and confer.

24 MS. ABRAMS: I'm not done with my
25 question. 13:15

1 BY MS. ABRAMS:

2 Q. With that preface, I'd like to ask you
3 this question: Do you know or are you the person
4 that is most knowledgeable about whether or not
5 Vanderbilt has in its files any information on 13:15
6 insurance coverage available to International
7 Talc?

8 A. I would not be that person.

9 Q. Who would that person be?

10 A. I don't -- 13:15

11 MR. RADCLIFFE: Object. Beyond the scope.

12 THE WITNESS: I don't know.

13 BY MS. ABRAMS:

14 Q. Who would have knowledge about
15 Vanderbilt's insurance coverage at Vanderbilt? 13:15

16 A. That's --

17 MR. RADCLIFFE: Object. Beyond the scope.
18 Don't speculate.

19 THE WITNESS: I know the insurance
20 coverage, the financial end of it is handled by 13:16
21 our financial folks. That would be that group.
22 I'm not even sure what the formal name would be,
23 but it would be the financial group.

24 BY MS. ABRAMS:

25 Q. Is there a person at that group that is in 13:16

1 charge of Vanderbilt's insurance coverage for
2 lawsuits?

3 MR. RADCLIFFE: Same objection.

4 BY MS. ABRAMS:

5 Q. Let's make it more specific. For lawsuits 13:16
6 regarding asbestos or other product liability
7 matters.

8 MR. RADCLIFFE: Same objection.

9 THE WITNESS: I'm not sure who would
10 handle that. 13:16

11 BY MS. ABRAMS:

12 Q. What's your job title?

13 A. I'm director of occupational health
14 corporate and industrial hygienist.

15 Q. Do you have a risk management department? 13:17

16 A. Yes. I set it up.

17 Q. Does risk management have to do with
18 minimizing or controlling or otherwise overseeing
19 the lawsuits that Vanderbilt has with respect to
20 either Workers' Compensation or third party? 13:17

21 MR. RADCLIFFE: Object --

22 MR. DAVIS: Is anybody talking? I
23 literally can't hear a thing.

24 MS. MCLEOD: I can't hear.

25 MS. ABRAMS: Read the question back.

1 MR. DAVIS: This happened in a deposition
2 about a week and a half ago and it was -- turned
3 out that the phone was no good. We swapped out
4 the phone and it sounded clear as a bell.

5 MS. ABRAMS: You know, I'm really sorry 13:17
6 about this, but the deposition was noticed for our
7 office, and I'm sorry if the phone is not working,
8 but we're in the middle of the deposition.

9 You're welcome to come down here.

10 We can try to swap the phone at a break; 13:17
11 okay?

12 MR. DAVIS: Okay, great. Thanks.

13 MS. MCLEOD: It's really choppy.

14 MS. ABRAMS: I'm really sorry but we can't
15 really help that. That's the phone we have. 13:18
16 That's the phone line. I'm sure it's the phone
17 line that's the issue which is what the issue was
18 last time.

19 MS. MCLEOD: Will you let us know when
20 it's time to take a break because I might just 13:18
21 have to run down there then.

22 MS. ABRAMS: Sure.

23 MS. MCLEOD: Thank you.

24 MS. ABRAMS: Okay. And speak up if you
25 can't hear us and we'll keep trying. 13:18

1 MR. DAVIS: Thank you.

2 MS. MCLEOD: Thank you. If you get back,
3 we can try to call back.

4 MS. ABRAMS: Now, would you read the
5 question back, please. 13:19

6 (Record read.)

7 MR. RADCLIFFE: Objection. Beyond the
8 scope.

9 THE WITNESS: I'm a little confused about
10 how to answer it. We would participate in suits 13:19
11 to the extent that we would have information that
12 would be pertinent to it.

13 But it's not the function of anyone in
14 risk management to oversee that activity. We
15 would contribute information when asked. 13:19

16 BY MS. ABRAMS:

17 Q. You worked for the Hartford Insurance
18 Company; correct?

19 A. That's correct.

20 Q. And when you worked for the Hartford 13:19
21 Insurance Company, you did that at some -- on some
22 occasions in your capacity as a Hartford person,
23 you coordinated certain things with the Vanderbilt
24 Company; correct?

25 MR. RADCLIFFE: Object. Vague and 13:19

1 ambiguous.

2 THE WITNESS: I coordinated industrial
3 hygiene work, which was air monitoring
4 information, things of that nature.

5 BY MS. ABRAMS:

13:20

6 Q. During your entire career with Hartford,
7 which I believe was 1980 to '85, or was it longer
8 than that? Strike that.

9 From 1980 to '85, I believe you had some
10 involvement with Vanderbilt on occasion; is that
11 right?

13:20

12 A. That's correct.

13 Q. And during that time, did any of that
14 involvement ever involve Workers' Comp or third
15 party lawsuits?

13:20

16 A. No, it did not.

17 Q. Who did you deal with at Vanderbilt in
18 your work when you worked at the Hartford?

19 A. I dealt with a fellow by the name of Vern
20 Streitmater, I think he spelled it
21 S-t-r-e-i-t-m-a-t-e-r.

13:20

22 Q. What was his job?

23 A. He oversaw the production facilities, vice
24 president of operations. So he oversaw the
25 chemical plants and mining facilities.

13:21

1 Q. Who is the -- is there a vice president of
2 risk management at Vanderbilt?

3 A. No, there is not.

4 Q. Who is in the risk management department?

5 A. There is a manager for environmental, 13:21
6 corporate manager of environmental who oversees
7 all the environmental issues for all the plants
8 for the corporation.

9 Q. Who is that?

10 A. That's Donna Duessel, D-u-e-s-s-e-l. 13:21

11 Q. Do you, on occasion, have interactions
12 with Vanderbilt's insurers?

13 A. On occasion.

14 Q. Which insurers do you interact with?

15 A. I've interacted with Zurich. I've had 13:22
16 some interaction with Hartford. I've had
17 interaction with CNA. There's a state fund. I
18 forget what the name of it is, exact name, but
19 it's a state fund in New York state.

20 Q. Now, do you know if any of those entities 13:22
21 or any other entities carry insurance to cover
22 International Talc for lawsuits?

23 MR. RADCLIFFE: Objection. Beyond the
24 scope.

25 THE WITNESS: I have no idea. 13:22

1 BY MS. ABRAMS:

2 Q. Do you know if Vanderbilt's insurance
3 covers International Talc lawsuits?

4 MR. RADCLIFFE: Objection. Beyond the
5 scope. 13:23

6 THE WITNESS: I have no idea.

7 BY MS. ABRAMS:

8 Q. And you don't know who I would talk to, to
9 find out that information at Vanderbilt?

10 A. I don't have any specific name. 13:23

11 Q. Do you have a general place I would look?

12 MR. RADCLIFFE: Objection. Asked and
13 answered.

14 THE WITNESS: Probably the financial
15 group. 13:23

16 BY MS. ABRAMS:

17 Q. Is there a person at the financial group
18 who you would direct me to?

19 MR. RADCLIFFE: Objection. Beyond the
20 scope. 13:23

21 THE WITNESS: Jim MacDonald.

22 BY MS. ABRAMS:

23 Q. What is his position?

24 A. I'm not sure what his actual title is.

25 He's in the financial group and he handles 13:23

1 insurance policies.

2 Q. And it's fair to say that you did not talk
3 to Mr. MacDonald or otherwise search for whether
4 or not Vanderbilt has insurance coverage available
5 to International Talc or whether anybody else has 13:24
6 insurance coverage available to International
7 Talc; correct?

8 A. That's correct.

9 MR. RADCLIFFE: Objection. Beyond the
10 scope. 13:24

11 MR. DAVIS: The static is really
12 interfering with the deposition.

13 MS. ABRAMS: We're going to hang up the
14 phone and try calling back. Unfortunately, the
15 static is interfering with the deposition. Okay? 13:24

16 MR. DAVIS: Okay.

17 MS. MCLEOD: Okay.

18 MS. ABRAMS: We can probably go off the
19 record.

20 THE VIDEOGRAPHER: We're going off the 13:24
21 record at 1:23 p.m.

22 (Recess taken.)

23 THE VIDEOGRAPHER: We're back on the
24 record, and the present time is now 1:29 p.m.

25 BY MS. ABRAMS:

1 Q. We just got back from a phone break, Mr.
2 Kelse. I want to continue on with Category No.
3 49, if you could look at that.

4 A. There are two sections. Is that the
5 second section? 13:31

6 Q. Second section, No. 49.

7 A. Okay.

8 Q. Did you, in your capacity as the custodian
9 of records, search for any Workers' Compensation
10 claims filed against the International Talc 13:31
11 Company?

12 MR. RADCLIFFE: He's not designated as
13 custodian of records for 49. He's designated as
14 custodian of records for those categories that
15 match up with his PMQ. 13:31

16 MS. ABRAMS: Who's designated in that
17 category?

18 MR. RADCLIFFE: We are objecting to that
19 category.

20 MS. ABRAMS: Understood. 13:31

21 BY MS. ABRAMS:

22 Q. So you can answer the question.

23 MR. RADCLIFFE: It's beyond the scope of
24 why he's here. You wanted to take the COR PMQ --

25 MS. ABRAMS: Are you instructing him not 13:31

1 to answer that question? I'm asking if he's
2 searched for the records. That's a "yes" or "no"
3 question. So it's up to you. You can tell him
4 not to answer.

5 MR. RADCLIFFE: Go ahead and answer. 13:32

6 THE WITNESS: No.

7 BY MS. ABRAMS:

8 Q. Do you know whether Vanderbilt maintains
9 any Workers' Compensation records that were filed
10 against the International Talc Company? 13:32

11 A. I don't know why they would. But I don't
12 know one way or another.

13 BY MS. ABRAMS:

14 Q. And is there a person at R.T. Vanderbilt
15 who maintains files, the Workers' Compensation 13:32
16 files? I know you mentioned that you knew about a
17 couple of lung cancer cases because of the
18 Workers' Compensation files. So do you know where
19 you found those or who had custody of those?

20 MR. RADCLIFFE: Objection. Compound. 13:32
21 Beyond the scope.

22 THE WITNESS: The compensation records
23 typically go to the plant, the initial...

24 BY MS. ABRAMS:

25 Q. Would Donna Duessel have custody of those 13:33

1 files?

2 MR. RADCLIFFE: Objection. Beyond the
3 scope.

4 THE WITNESS: No.

5 BY MS. ABRAMS: 13:33

6 Q. Who at the plant would have custody of
7 those files?

8 A. It would be their personnel, human
9 resource.

10 Q. Who is that at the plant? 13:33

11 A. Dave Dean, D-e-a-n.

12 Q. You were designated as the person who had
13 knowledge of studies of Mouldene talc.

14 Do you know, in the studies of Mouldene
15 talc, whether or not those studies tracked 13:34
16 International Talc workers who no longer work for
17 R.T. Vanderbilt?

18 A. The studies I referred to -- or the study
19 is just singular report I had in my file, and it's
20 a mineralogy, an analytical report, not a health 13:34
21 report.

22 Q. What report is that?

23 A. That's the report dated -- I'll get it in
24 a second -- it would be Dr. Wylie's report dated
25 July 28, 1989. It's the only formal report that I 13:34

1 have.

2 Q. Do you know whether there's ever been a
3 study, an epidemiological study about the health
4 effects of Mouldene talc?

5 A. I'm not aware of any. 13:35

6 Q. Do you know whether there's ever been any
7 kind of cohort study of the health of former
8 International Talc workers?

9 A. Cohort study of former -- specific to
10 that, no, I'm not aware of that. 13:35

11 Q. Are you the person who would be most
12 knowledgeable about whether or not there had been
13 studies of former International Talc workers as to
14 their current health status and mortality status?

15 MR. RADCLIFFE: Objection. Beyond the 13:36
16 scope. Calls for speculation.

17 THE WITNESS: I have no data on that.

18 BY MS. ABRAMS:

19 Q. That wasn't my question. My question was,
20 at Vanderbilt, R.T. Vanderbilt Corporation, is 13:36
21 there anyone else besides you that would be more
22 knowledgeable about whether or not there had been
23 studies of International Talc workers and their
24 current health or mortality studies?

25 MR. RADCLIFFE: Objection. Beyond the 13:36

1 scope. Calls for speculation.

2 THE WITNESS: I'm aware of no such
3 studies, but I don't know what anyone else knows.
4 I'm not aware of any.

5 BY MS. ABRAMS:

13:36

6 Q. Are there medical people who might have
7 that information that either are employees of
8 Vanderbilt or their consultants?

9 MR. RADCLIFFE: Objection. Beyond the
10 scope. Calls for speculation.

13:36

11 THE WITNESS: I'm not aware of any
12 specific to International Talc, no.

13 BY MS. ABRAMS:

14 Q. And other than Dr. Wylie's study that
15 you've produced here today, do you know any other
16 studies of the mineralogical composition of any
17 Mouldene talc?

13:37

18 A. That's the only formal report I have.

19 Q. Well, let's turn to that. That comes out
20 of your Mouldene folder; right?

13:37

21 A. Yes.

22 MR. RADCLIFFE: Can we have -- okay,
23 you've given the witnesses his folders back.
24 Thank you.

25 MS. ABRAMS: Do you need a copy?

13:37

1 MR. RADCLIFFE: I assume you're going to
2 mark a copy for the record?

3 MS. ABRAMS: I can do that.

4 Okay. Mark this as Exhibit 2, please.

5 (Plaintiff's Exhibit No. 2 marked for
6 identification.)

7 BY MS. ABRAMS:

8 Q. Now, can you point out to me in this
9 document, which is -- I've marked as Exhibit 2,
10 and which is Dr. Wylie's paper entitled -- she is 13:38
11 a doctor; right?

12 A. Yes.

13 Q. Is she a Ph.D.?

14 A. Oh, yeah.

15 Q. She's not a medical doctor? 13:38

16 A. No.

17 Q. "Mineralogical Features Associated With
18 Cytotoxic and Proliferative Effects of Fibrous
19 Talc and Asbestos on Rodent Tracheal Epithelial
20 and Pleural Mesothelial Cells." 13:38

21 Is that the paper you're speaking of?

22 A. No. I'm speaking of her analytical report
23 as the composition of Mouldene, the mineral
24 composition of Mouldene.

25 Q. Would you mind turning to Exhibit 2 first, 13:39

1 the paper that you've included in your Mouldene
2 folder.

3 A. Right. Um-hum.

4 Q. Could you point out to me in this paper
5 where you believe this paper applies to the issue 13:39
6 of Mouldene?

7 A. Yes. The reason it was in this folder is
8 because it speaks to a study that was done with a
9 concentrate of talc fiber.

10 And talc fiber, as I understand it from 13:39
11 her analytical report and from Dr. Thompson, is
12 more prevalently found in Mouldene than it is in
13 the talc that we typically mine from our
14 underground mine and from the Arnold pit. It's
15 easier to see. There is more of it. And it's one 13:40
16 of the reasons why that talc grade was called a
17 fiber, high fiber talc.

18 So to the extent that this cell study
19 focused on that component. It has an application
20 and the only risk-linked application that I have 13:40
21 to Mouldene.

22 But it's not a direct testing of Mouldene.

23 Q. Well,
24 what did she test in here?

25 A. A high concentrate, a high fiber 13:40

1 concentrate.

2 Q. Where did she get it from?

3 A. R.T. Vanderbilt produced it.

4 Q. How did they produce it?

5 A. They took a high-fiber grade of material, 13:40
6 and I'm not sure if -- I'm not sure what the
7 source was, probably Talcville, and then they
8 floated out the talc fiber to keep concentrating
9 it so that they would do just that, have a
10 concentrate of talc fiber. 13:41

11 Q. Well, you have no idea where they got that
12 fiber from; correct?

13 MR. RADCLIFFE: Object to the form.
14 Misstates previous testimony.

15 THE WITNESS: That's -- I don't know 13:41
16 exactly where it came from. I have an
17 understanding, but I don't want to speculate.

18 BY MS. ABRAMS:

19 Q. Well, did you talk to anybody to find out
20 where it was from? 13:41

21 A. Well, I have an understanding. My
22 understanding, and from discussions that I had
23 with the individual who helped produce the sample,
24 was that it was a high fiber material that came
25 from Talcville, so it would have come from the 13:41

1 mine that Mouldene was mined from, is another
2 reason why I think that this is a link to
3 Mouldene.

4 Q. Who is the individual?

5 A. That was Conrad Reiger, R-e-g -- 13:42
6 R-e-i-g-e-r.

7 Q. Who does he work for?

8 A. He works for R.T. Vanderbilt. He's a
9 ceramics engineer.

10 Q. We'll put you on notice that we want his 13:42
11 deposition on the 26th.

12 When did you talk to Mr. Reiger about
13 this?

14 A. I don't remember the specific date.

15 Q. Well, was it recently? 13:42

16 A. No.

17 Q. So you got the impression that they got
18 that sample for Dr. Wylie's study that was
19 published in 1997 from Mine No. 3?

20 A. That's my understanding. 13:43

21 Q. Was Mine No. 3 open?

22 A. Well, again, mine No. 3 being the
23 Talcville?

24 Q. Well, Mine No. 3 -- my understanding of
25 Mine No. 3 is that it was the International Talc 13:43

1 Mine No. 3 where they mined Mouldene; correct?

2 A. Yes.

3 Q. The one you just told us was completely
4 closed down and was not in operation; correct?

5 A. Correct. That's right. 13:43

6 Q. So how did he get the material from Mine
7 No. 3 -- or what did he tell you about getting the
8 material from Mine No. 3 to give to Ann Wylie?

9 A. I believe it was from a material that was
10 on the surface. You know, you can find material. 13:43
11 If you find a material that looks particularly
12 fibrous, then that's -- that's what he selected.

13 Q. So he picked it up off the ground?

14 A. Yes, in effect.

15 Q. It wasn't from the underground mine in a 13:44
16 vein in the underground mine; correct?

17 A. That's correct.

18 Q. Why is it that he told you that he went
19 and got a sample from somewhere on the ground
20 around Mine No. 3 for this particular study? 13:44

21 MR. RADCLIFFE: Objection. Calls for
22 speculation.

23 THE WITNESS: Again, this goes back a
24 number of years. I guess -- I would have to look
25 at my records, if I have something written down, 13:45

1 as to why, you know, I was asking him, and I would
2 just be curious to know where the sample came
3 from, that the concentrate was produced from.

4 We knew what it was. We knew what the
5 material was because it was characterized. That's 13:45
6 why Dr. Wylie was in the study.

7 But its source was something that I would
8 have a question about or that I would just
9 generally want to know.

10 BY MS. ABRAMS: 13:45

11 Q. So you keep notes of conversations on
12 things like those kinds of discussions?

13 A. No. I wouldn't do that.

14 Q. I believe you just responded, you'd have
15 to look back at your records and see if you had 13:45
16 notes?

17 A. Yeah. Sometimes -- not notes on
18 conversations, but if there may have been a case
19 where this question was asked before as the origin
20 of the sample, I know that that's the case in a 13:46
21 couple of the animal studies, and we had to go
22 back and research the documentation, whatever
23 existed, that spoke to the origin of the samples
24 in those animal studies.

25 I don't think that came up on this study. 13:46

1 But if it did, then there may have been a note or
2 two or a memo memorializing the origin of that --
3 that sample. I don't think there was. I think it
4 was just my asking in this case.

5 Q. So is it fair to say, Mr. Kelse, that 13:46
6 what -- the material -- that you are not the
7 person most knowledgeable about what material is
8 actually put into this study for Dr. Wylie?

9 MR. RADCLIFFE: Objection. Calls for
10 speculation. 13:46

11 THE WITNESS: No, I'm not. Based on the
12 characterization of the material, which is
13 reflected in the report itself, beyond that and a
14 report that it came from Talcville and it was from
15 the surface rock that seemed to be of a high fiber 13:47
16 content, that pretty much exhausts what I know
17 about its origin.

18 BY MS. ABRAMS:

19 Q. My question is, you're not the person that
20 went and got the material; correct? 13:47

21 A. No.

22 Q. Does it say in here that it's from
23 Talcville in the article?

24 A. I don't know. I'd have to look -- look
25 through. I -- I don't think it does. 13:47

1 Q. Does it say that it was picked up off the
2 ground in -- in Talcville somewhere?

3 A. I seriously doubt that, but I would have
4 to read through it.

5 Q. I take it that your understanding of -- 13:47
6 strike that.

7 Let me look at this for a minute.

8 MR. RADCLIFFE: I think on page 2 of the
9 article, under "Sources of Mineral Samples," it
10 talks about the source -- it talks about where it 13:48
11 came from.

12 BY MS. ABRAMS:

13 Q. Well, under "Sources of Mineral Samples,"
14 it says it came from the Gouverneur talc district.
15 That could mean any Vanderbilt mine; correct? 13:49

16 A. It could be.

17 Q. Yeah. So you're -- I take it you're --
18 you believe, based on this article, that Ann Wylie
19 is saying that that fibrous talc she looked at
20 didn't have any asbestos in it; is that right? 13:49

21 MR. RADCLIFFE: Object to the form.
22 Misstates prior testimony.

23 THE WITNESS: Well, it speaks for itself.
24 She doesn't say that it contains asbestos. There
25 is no asbestos here. It's talc fiber and -- and 13:49

1 transitional fiber.

2 BY MS. ABRAMS:

3 Q. In your opinion, transitional fiber is not
4 asbestos fiber; correct?

5 A. That's what the mineralogists tell me, 13:49
6 yes.

7 Q. But under the Stanton hypothesis as you
8 stated it before, that would be an incorrect
9 statement; correct?

10 A. I don't think Stanton defined asbestos 13:50
11 that way.

12 Q. Isn't it correct that some transitional
13 fibers, as you define them, fit into the Stanton
14 hypothesis?

15 A. They meet -- they meet the critical 13:50
16 dimensions, yes.

17 Q. But Dr. Wylie doesn't agree with that,
18 does she?

19 A. That they meet the critical dimensions?

20 Q. That those are asbestos-form materials? 13:50

21 A. She doesn't agree that --

22 MR. RADCLIFFE: Object to the form.

23 THE WITNESS: -- that they're not
24 asbestos.

25 MR. RADCLIFFE: Objection. Vague and 13:50

1 ambiguous. Misstates prior testimony.

2 BY MS. ABRAMS:

3 Q. She doesn't agree they are or aren't
4 asbestos?

5 A. She has said, that's why I brought her 13:50
6 summary, she has never seen asbestos in all the
7 years that she's looked at this material.

8 But she certainly has -- has looked at
9 talc fiber under that category, transitional as
10 well. She has never referred to them as asbestos 13:50
11 and she says essentially that in her summary.

12 Q. So my question is this: Under the Stanton
13 hypothesis, some of the fibers that Dr. Wylie
14 identifies as transitional fibers, Dr. Stanton fit
15 into the category of asbestos-form or fibers under 13:51
16 the Stanton hypothesis; isn't that correct?

17 MR. RADCLIFFE: Objection. Vague and
18 ambiguous. Misstates prior testimony.

19 MS. ABRAMS: It's just a "yes" or "no"
20 question. 13:51

21 THE WITNESS: They fit the dimension.

22 BY MS. ABRAMS:

23 Q. Thank you.

24 Is there -- let's continue to go through
25 your Mouldene file while we have it here, if you 13:51

1 don't mind. If I may just look in your file.

2 We've talked about Wylie.

3 The Wylie article was 1997. You have a
4 letter from Ann Wylie in 1989. So why don't we
5 turn to that. That predates her article; correct? 13:52

6 A. That's correct.

7 Q. And it's correct that R.T. Vanderbilt
8 has --

9 MR. RADCLIFFE: Are we going to mark the
10 letter? 13:52

11 MS. ABRAMS: Pardon me?

12 MR. RADCLIFFE: Are we going to mark the
13 letter?

14 MS. ABRAMS: Eventually.

15 BY MS. ABRAMS: 13:52

16 Q. It's correct that R.T. Vanderbilt has
17 consulted with Dr. Wylie at least on occasion;
18 correct?

19 A. That's correct.

20 Q. And I know you've been asked this before, 13:53
21 so maybe you've looked it up, but do you know how
22 much R.T. Vanderbilt has paid Dr. Wylie over the
23 years to consult with them?

24 MR. RADCLIFFE: Objection. Vague and
25 ambiguous. Compound. Argumentative. 13:53

1 THE WITNESS: I don't know. I wouldn't
2 know that.

3 BY MS. ABRAMS:

4 Q. It's not something that you were curious
5 to find out after being asked in deposition 13:53
6 several times?

7 A. No. I care more about her science than
8 money.

9 BY MS. ABRAMS:

10 Q. Do you know when the first time was that 13:53
11 R.T. Vanderbilt consulted with Dr. Wylie?

12 A. I don't know the exact date. I know it --
13 there was contact, I believe, as early as the
14 '70s. When exactly, I don't know.

15 Q. So that was before your time? 13:53

16 A. It was before my time.

17 Q. Have you ever personally talked to Dr.
18 Wylie?

19 A. Yes.

20 Q. On how many occasions? 13:53

21 A. Oh, at least half a dozen.

22 Q. Had -- did you speak with Dr. Wylie before
23 you started your employment at Vanderbilt?

24 A. No, I did not.

25 Q. Is it fair to say that before you became 13:54

1 employed by Vanderbilt, it was your understanding
2 that the fibers at the Vanderbilt facility were
3 asbestos fibers and you were concerned about that?

4 A. I understood that there was a controversy.

5 And when I worked for Hartford, we actually 13:54

6 discussed it as to how we would approach this

7 controversy and concluded that we would not

8 basically get involved, that it was beyond the

9 expertise of the insurance company, certainly

10 beyond my expertise. 13:54

11 And this was an area that we were not --

12 we were not going to address it. So when I took

13 air samples, I didn't take air samples for

14 asbestos.

15 Q. Well, I'd strike that answer as 13:54

16 nonresponsive, but I'm going to leave that in and

17 ask you the question again.

18 MS. ABRAMS: Would you read the question

19 back.

20 (Record read.) 13:55

21 BY MS. ABRAMS:

22 Q. And I'm asking you before you had contact

23 with Vanderbilt to hear about a controversy.

24 A. Oh, before? No. No, I was not aware of

25 it prior to my working with Vanderbilt as a 13:55

1 consultant in industrial hygiene.

2 Q. Well, did the Hartford, your employer,
3 send you there to figure out whether there was
4 asbestos there or not?

5 A. No, not at all. 13:55

6 Q. So the Hartford had no interest in the
7 fact that there may be asbestos in the talc
8 material at Vanderbilt?

9 MR. RADCLIFFE: Objection. Argumentative.

10 THE WITNESS: That -- I don't recall that 13:55
11 being an issue for them. I was doing air sampling
12 at all their facilities. The talc mine was just
13 one of many facilities that they had.

14 BY MS. ABRAMS:

15 Q. Do you know whether the Hartford was their 13:56
16 Workers' Compensation carrier?

17 A. It was for those years.

18 MR. RADCLIFFE: Objection. Beyond the
19 scope.

20 BY MS. ABRAMS: 13:56

21 Q. For which years?

22 A. From -- well, certainly from '80 through
23 the end of '84 or early '85, and it may have
24 predated '80 into the late '70s. It was in that
25 timeframe from late '70s to mid '80s. 13:56

1 MR. RADCLIFFE: Same objection.

2 BY MS. ABRAMS:

3 Q. And do you know who their insurance
4 carrier -- their comp carrier was before that?

5 A. I don't. 13:56

6 MR. RADCLIFFE: Objection. Beyond the
7 scope.

8 BY MS. ABRAMS:

9 Q. Do you know if the Hartford was an insurer
10 for International Talc? 13:56

11 MR. RADCLIFFE: Same objection.

12 THE WITNESS: I don't know.

13 BY MS. ABRAMS:

14 Q. Do you know if the Hartford was an insurer
15 for Loomis? 13:56

16 MR. RADCLIFFE: Same objection.

17 THE WITNESS: I have no idea.

18 MR. RADCLIFFE: Mr. Kelse, if you could
19 just wait a heartbeat if I have an objection, so
20 we don't talk over each other. 13:57

21 THE WITNESS: Oh, okay.

22 BY MS. ABRAMS:

23 Q. So let's look at this letter, which I'm
24 going to mark, the letter from Ann Wylie to Dr.
25 Thompson in 1989. 13:57

1 And, actually, before I do that, let me
2 just ask counsel, these documents that you've
3 produced which are Bates-stamped, we can get the
4 Bates stamp numbers for the large amount of
5 documents. 13:57

6 Will you stipulate to the authenticity of
7 these documents? They were produced by you. Or
8 should we go through the exercise of --

9 MR. RADCLIFFE: I won't object on
10 authenticity grounds. 13:57

11 MS. ABRAMS: Was that a stipulation? I
12 need a stipulation on the record.

13 MR. RADCLIFFE: I will stipulate with you
14 that I will not object on authenticity grounds.

15 MS. ABRAMS: Okay. We'll put the Bates 13:57
16 stamp numbers on the record so we have clarity on
17 that.

18 MR. RADCLIFFE: I believe it's Bates stamp
19 Nos. 1 through -- I don't have the last number.

20 MS. ABRAMS: We'll get it. 13:58

21 MR. RUIZ: Does 1,361 sound correct?

22 MS. ABRAMS: We'll -- we'll say that.
23 Okay.

24 MR. RADCLIFFE: Yes. Actually, that is --
25 I believe that is correct. It's WES leading 13:58

1 zeroes 1 through WES-1361.

2 MS. ABRAMS: Thank you.

3 BY MS. ABRAMS:

4 Q. The letter that you have in front of you
5 which we're about to mark as Exhibit 2 -- 13:58

6 MR. RADCLIFFE: It's going to be Exhibit
7 3, and --

8 MS. ABRAMS: Exhibit 3.

9 MR. RADCLIFFE: -- you need to give the
10 court reporter just a second. 13:58

11 (Plaintiff's Exhibit No. 3 marked for
12 identification.)

13 BY MS. ABRAMS:

14 Q. Did you -- strike that.

15 With respect to the article -- the Wylie 13:59
16 article we just looked at, did you read that
17 article at or around the time that it was
18 published, if you recall?

19 A. Yes.

20 Q. This 1989 letter from Wylie to Thompson 13:59
21 which says, "Dear Dr. Thompson," Thompson is
22 crossed out and it says "Slim."

23 Is Slim Dr. Thompson's name?

24 A. Nickname, yes.

25 Q. So it says, "Dear Slim." 13:59

1 Did you read this July 28, 1989, letter at
2 or around the time it was created as well?

3 A. I don't recall whether I did or didn't.

4 Q. Do you remember when the first time you
5 saw this letter was? 13:59

6 A. No, I don't. Certainly when I was asked
7 to look through what documents I had on Mouldene,
8 it was in that file which was a couple weeks ago.
9 It's my routine to look at analytical reports, but
10 I can't say for certain that I looked at it on 14:00
11 July 28th or 29th or 30th. But I, you know,
12 obviously saw it.

13 Q. So this, in your opinion or
14 representation, it's -- you consider this a
15 technical report? 14:00

16 A. Yeah, it's an analytical report.

17 Q. I'm sorry, analytical report. And what
18 is -- you've included this in your Mouldene file.
19 What do you believe this says about Mouldene?

20 A. Well, Dr. Wylie does not find asbestos in 14:00
21 Mouldene.

22 Q. Does she say that specifically? Do you
23 see anything in there that says, I don't find
24 asbestos in Mouldene?

25 A. Well, to be asbestos, it has to be one of 14:01

1 six minerals and it has to be in the asbestiform
2 habit.

3 None of those appear on this paper
4 anywhere. Consequently, she does not report
5 asbestos. 14:01

6 Q. Does Ann Wylie in this letter say anywhere
7 that Mouldene talc does not contain asbestos, in
8 those words?

9 A. In those words, no.

10 Q. If you would follow along with me, she 14:01
11 says in her second paragraph -- and she's talking
12 about Mouldene S-158.

13 Do you know what that is?

14 A. I do not.

15 Q. Did you ever ask what that was? 14:01

16 A. No, I haven't.

17 Q. Do you know where that was from?

18 A. Well, if it says Mouldene, it would be
19 from the Talcville mine.

20 Q. But you don't know where that particular 14:01
21 sample Mouldene S-158 came from; correct?

22 A. No, I would not.

23 Q. And do you know whether this was the first
24 test of that sample?

25 A. This is the only document or record I 14:02

1 have.

2 Q. You don't have anything in your files of
3 any Mouldene testing before July 28, 1989,
4 correct, other than the Wylie article?

5 A. There are references in internal memoranda 14:02
6 which are included here; one was written by
7 Dr. Thompson to Paul Vanderbilt. And the second
8 one I think was to a Gus Fiederlein which
9 indicates that Dr. Thompson did some analysis of
10 International Talc products. 14:02

11 But other than the reference in these
12 memorandum, I don't have any analytical reports of
13 this nature.

14 Q. And what's the date on the memorandum?

15 A. There are two. One is dated September 23, 14:02
16 1987.

17 And now I need to find the other one,
18 which I thought was in here someplace. I think it
19 would be one -- the name on it should be, I
20 believe, Gus Fiederlein. 14:03

21 Q. Pardon me?

22 A. I checked this, this morning. I thought
23 that it was in here. Maybe it got lost in the
24 shuffle.

25 MR. RADCLIFFE: Why don't you take a 14:03

1 moment and look through the other folders to make
2 sure -- certain that it didn't get misplaced.

3 THE WITNESS: Pushed in another one?

4 Do you have the copy that you made by any
5 chance? Do you see a memo? Does it say Gus 14:03
6 Fiederlein on it?

7 MR. RUIZ: No.

8 THE WITNESS: That's the one to Paul
9 Vanderbilt, isn't it?

10 MR. RUIZ: Yes. 14:04

11 MS. ABRAMS: So we have a disappearing act
12 of a memo that says --

13 BY MS. ABRAMS:

14 Q. Do you have a recollection of
15 approximately when that was generated? 14:04

16 A. No, I don't. Let me look at one of these
17 other files. Maybe it got shuffled. I know that
18 I was asked to produce what I had on Mouldene, and
19 this is what I had produced to the attorneys. And
20 I'm sure that was in that pile, so I suspect it 14:04
21 was probably produced for you.

22 Q. And can you be more specific about what it
23 is we're looking for, so we can maybe get it?

24 A. Yes, it's a single page memorandum,
25 internal Vanderbilt memorandum from Dr. Thompson 14:05

1 to G. L. Feederline. And I don't know the exact
2 date.

3 MS. ABRAMS: If you look in the black
4 binder, you might find it in there.

5 THE WITNESS: Sorry about that. 14:05

6 BY MS. ABRAMS:

7 Q. Are we talking about, if you know, the
8 1970s, 1980s or 1990s?

9 A. I don't think it was the 1990s. It was
10 the '70s or '80s. 14:05

11 Q. Who is the G. L. Feederline?

12 A. He was the executive vice president in
13 the -- he's the chief financial officer, I
14 believe, in the 1970s and then the president at
15 one point in the late '80s, early '90s. So he's 14:06
16 sort of second in command.

17 Q. And what was the memo about?

18 A. As I recall, it was very similar to the
19 letter to Paul Vanderbilt, although I think the
20 letter -- the memo to Paul Vanderbilt is more 14:06
21 detailed.

22 My recollection was Dr. Thompson
23 explaining how he had some difficulty analyzing
24 the five grades of talc from International Talc
25 from the Talcville mine. 14:07

1 He was asked to look at those materials
2 when the company purchased International Talc, and
3 he had some difficulty with the analysis. It was
4 a complex analytical issue for him.

5 And he was explaining that very much the 14:07
6 same way as he did in his memo to Paul Vanderbilt.

7 Q. May I see the memo to Paul Vanderbilt?

8 A. That's it.

9 Q. And that's the 1987 memo. Okay.

10 Do you see it anywhere? 14:07

11 MR. RUIZ: No.

12 MS. ABRAMS: We ask that you find it and
13 produce it.

14 MR. RADCLIFFE: Well, the witness, I
15 think, has said that he saw it this morning and 14:08
16 believes he brought it with him. If it got
17 misplaced, it got misplaced. We'll look for it
18 and we'll produce it.

19 MS. ABRAMS: Well, we can look back and
20 see what we talked about in the Mouldene file. 14:08

21 MR. RADCLIFFE: I'm not suggesting you
22 misplaced it.

23 MS. ABRAMS: We may have. It may have
24 been eaten by my copy machine, who knows.

25 MR. RADCLIFFE: It could have been 14:08

1 misplaced in the bathroom. I don't know.

2 BY MS. ABRAMS:

3 Q. You have a copy of it at your office;
4 correct?

5 A. Yes.

14:08

6 Q. So if we don't find it here today, will
7 you give it to your attorneys and have them
8 produce it for us?

9 A. Certainly.

10 Q. Thank you.

14:08

11 Okay. Let's go back to this 1989 Wylie
12 letter to Slim Thompson.

13 So what are these little squiggly figures
14 on here?

15 A. Alpha beta. It refers to refractive
16 index.

14:09

17 Q. So is the little circle on the bottom
18 figure, is that alpha, or is that something else
19 in the second sentence in -- the third sentence in
20 the second paragraph? "Parallel to elongation."

14:09

21 What is that?

22 A. Well, you know, I think on this I'm going
23 to let Dr. Thompson, who is a mineral scientist,
24 answer you rather than have me bungle my way
25 through an explanation of -- of refractive

14:09

1 indices.

2 There's a -- it's a tool that Dr. Wylie
3 uses that basically identifies the mineral type --

4 Q. Well, this is her --

5 A. -- by refractive index and the different 14:10
6 techniques that are used for light optical
7 analysis.

8 And it gets pretty technical, and I would
9 prefer that Dr. Thompson describe that to you as
10 to what that's about. 14:10

11 Q. Sure. So I -- just want you to look at
12 paragraph 1 under "fibrous talc" and point out to
13 me where in that paragraph you believe she says
14 there's no asbestos.

15 A. Well, what she's -- I -- what she's doing 14:10
16 here is she's identifying the mineral type with
17 these refractive indexes. And -- and then she's
18 making another -- and that tells you the mineral
19 type.

20 Then there's another aspect to this, which 14:11
21 is the crystal habit, or the way the crystals
22 were -- either grew or were formed by -- by
23 breakage.

24 And when she says "fiber displays," the
25 classical characteristics of asbestos, that means 14:11

1 that some of the fibers that she saw in the sample
2 were -- showed characteristics typical of
3 asbestos.

4 That doesn't make them asbestos. It makes
5 them -- the term that's used is "asbestiform." It 14:11
6 means, literally, like asbestos, looks like
7 asbestos.

8 But it's not. It doesn't make it
9 asbestos. I know this is very confusing. I had a
10 hard time with that myself. 14:11

11 Q. Okay. So --

12 A. But it speaks to a -- the way it looks.

13 Q. It -- she looked under her microscope, or
14 whatever she did, and she reported back about the
15 fibrous talc and what she said under the fibrous 14:12
16 talc is, There is asbestiform fibrous talc in this
17 material; isn't that correct?

18 A. Um-hum. She said --

19 Q. Is that a "yes"?

20 A. Well, no. She said that that -- 14:12

21 Q. Um-hum.

22 A. -- well -- In general -- she says, In
23 general, the more -- the more the fibers display
24 the characteristics of asbestos -- fiber bundles
25 with these values represent in general, the more 14:12

1 of the fibers display the characteristics.

2 So she's not saying they all do. She's
3 saying some displayed characteristics that are
4 similar to asbestos.

5 Q. Okay. Mr. Kelse, in July 28th of 1989, 14:12
6 Dr. Ann Wylie wrote a letter to Dr. Thompson,
7 nicknamed Slim --

8 A. Um-hum.

9 Q. And she reported, "There is asbestiform
10 material in your fibrous talc sample of Mouldene 14:12
11 S-158."

12 Is that correct?

13 A. That would be correct.

14 MR. RADCLIFFE: Can you tell me where you
15 were reading from? 14:13

16 MS. ABRAMS: Please don't interrupt the
17 witness.

18 MR. RADCLIFFE: I'm not interrupting the
19 witness. I'm asking you.

20 MS. ABRAMS: So let me get that answer, a 14:13
21 clear answer on the videotape.

22 Is that correct?

23 MR. RADCLIFFE: I object. You are --

24 MS. ABRAMS: You can object. Say your
25 objection and then we're going to get an answer. 14:13

1 MR. RADCLIFFE: I object. You're
2 misstating the letter. You're stating things that
3 are not there.

4 MS. ABRAMS: You can object.

5 MR. RADCLIFFE: Misleading and 14:13
6 argumentative.

7 MS. ABRAMS: What is your form objection?

8 MR. RADCLIFFE: Misleading --

9 MS. ABRAMS: That's all you're entitled to
10 is to a form objection. What is it? 14:13

11 MR. RADCLIFFE: Misleading.
12 Argumentative.

13 MS. ABRAMS: Thank you.

14 BY MS. ABRAMS:

15 Q. Is that correct, sir? That is a "yes" or 14:13
16 a "no" question.

17 A. Well, I think when you asked me what
18 something says in an analytical report --

19 Q. Mr. Kelse --

20 A. Well, I have to tell you, you need to use 14:13
21 the analytical report to -- you know, what it
22 says, it says. I'm not going to interpret what it
23 says.

24 Q. Mr. Kelse --

25 A. My understanding of what it says is that 14:14

1 fibrous talc occurs in the sample. The fibrous
2 talc can occur in fiber bundles with splayed ends
3 that does look like asbestos. Those would be
4 referred to as asbestiform.

5 Q. Thank you. 14:14

6 Now, with respect to the anthophyllite in
7 the sample, according to this letter, it's correct
8 that she doesn't believe that the anthophyllite is
9 asbestiform; correct?

10 A. She says it doesn't display asbestiform 14:14
11 characteristics.

12 Q. And that's also true of the tremolite;
13 correct?

14 A. That's what she says.

15 Q. Okay. And, according to Dr. Wylie, in the 14:14
16 Mouldene S-158 sample, the tremolite and
17 anthophyllite together total 5 to 10 percent of
18 the sample; correct?

19 A. That's what she says.

20 Q. And then there are a few percent that are 14:15
21 carbonite, quartz and other materials; correct?

22 A. That's right.

23 Q. So at least something on the order of 80
24 plus percent of this material is fibrous talc;
25 correct? 14:15

1 MR. RADCLIFFE: Object to the form.

2 Misstates --

3 THE WITNESS: I cannot -- yeah, I cannot
4 conclude that. She does not give a complete
5 rundown of every mineral that she analyzed from 14:15
6 the talc.

7 She talks about talc fiber, which would be
8 a focus point. She talks about anthophyllite, the
9 crystal form of anthophyllite and tremolite that
10 she sees. She gives -- she gives a percentage of 14:15
11 tremolite anthophyllite that she's talking about.

12 Whatever else exists in this product, like
13 serpentine and tigerite, lizardite, for example,
14 which is common in industrial grade talcs up
15 there, she doesn't comment on at all. 14:16

16 But that doesn't mean it's not there.

17 MS. ABRAMS: Mr. Kelse, I move to strike
18 as nonresponsive.

19 BY MS. ABRAMS:

20 Q. I direct your attention to the second 14:16
21 sentence of this letter: "The material in sample
22 Mouldene S-158 consists primarily of fibrous talc
23 with small amounts of tremolite, anthophyllite,
24 carbonite, quartz, platy talc and feldspar."

25 Is that a correct reading of that? 14:16

1 A. Yes, actually -- yeah. That --

2 Q. Do you see any other mention of any other
3 material in that statement?

4 A. No. No, I don't.

5 Q. And it's correct that this is an 14:16
6 analytical report?

7 A. Right.

8 Q. And in an analytical report this scientist
9 is going to be very exacting about what's in the
10 material; isn't that correct? 14:16

11 MR. RADCLIFFE: Objection. Argumentative.

12 THE WITNESS: Well, she reports what she
13 reports.

14 Maybe I misconstrued your question. I --
15 I took it as the tremolite and anthophyllite and 14:17
16 all the rest is -- is talc fiber. And -- and I
17 responded, but I don't think that's the case.

18 But she's not saying that's the case. She
19 gives other components, so I don't know what --
20 what the percentage of the -- the other components 14:17
21 are.

22 I only know that the tremolite and
23 anthophyllite, based on her report, together was 5
24 to 10 percent of the sample. That's all I know in
25 terms of composition and quantity. 14:17

1 BY MS. ABRAMS:

2 Q. Well, let me direct your attention to the
3 last sentence of the fifth paragraph, which says,
4 "A few percent" -- she's already told you there's
5 5 to 10 percent of tremolite and anthophyllite. 14:17

6 A. Right.

7 Q. Then she goes on to say a few percent of
8 the sample is carbonite.

9 A. Right.

10 Q. Which she mentioned in the first 14:17
11 paragraph.

12 A. Right.

13 Q. A little less is quartz.

14 A. Right.

15 Q. And feldspar occurs only in trace 14:17
16 quantities.

17 A. That's correct. But if you notice, she
18 mentioned platy talc up at the top.

19 Q. So we don't know how much platy talc?

20 A. Exactly. 14:18

21 Q. But we do know that the material primarily
22 consists of fibrous talc; correct?

23 MR. RADCLIFFE: Objection.

24 MS. ABRAMS: That's from the second
25 sentence of the first paragraph. 14:18

1 MR. RADCLIFFE: Objection.

2 MS. ABRAMS: Do you see that? "The
3 material consists primarily of fibrous talc."

4 MR. RADCLIFFE: Objection. Argumentative.

5 THE WITNESS: That's what she says. 14:18

6 BY MS. ABRAMS:

7 Q. "With small amounts of tremolite,
8 anthophyllite, carbonite, quartz, platy talc and
9 feldspar." Correct? Did I read that right?

10 A. You read it correctly. 14:18

11 Q. Thank you.

12 So, other than that Dr. Wylie study of a
13 specific sample of Mouldene talc, sample S-158,
14 which is a direct statement of what is in the
15 Mouldene, what else do you have with you as the 14:18
16 representative of R.T. Vanderbilt that shows what
17 is in Mouldene material?

18 MR. RADCLIFFE: Objection. Argumentative.

19 THE WITNESS: I have nothing that is this
20 specific. All I have is a general discussion by 14:19
21 Dr. Thompson describing his experience in
22 analyzing this material when he first looked at it
23 in the early '70s.

24 BY MS. ABRAMS:

25 Q. And this is a September 23, 1987, letter 14:19

1 from -- interoffice memorandum from Dr. Thompson
2 to Paul Vanderbilt; correct?

3 A. That's correct.

4 MS. ABRAMS: We we're going to mark that
5 as Exhibit 4. 14:19

6 (Plaintiff's Exhibit No. 4 marked for
7 identification.)

8 BY MS. ABRAMS:

9 Q. I'd like you to direct your attention to
10 this -- and you had this interoffice memorandum in 14:20
11 your files?

12 A. In a file marked "Mouldene," yes.

13 Q. I just want to clarify, you -- in your
14 office you actually had a file marked "Mouldene,"
15 you didn't create that for today; correct? 14:20

16 A. That's correct.

17 Q. I thought that's what you said.

18 And what -- is the sum total of what's in
19 your file in your office, did you bring all that
20 with you today? 14:20

21 A. No. There were some additional documents
22 that pertained to one other entry, which was this.
23 And that's all that was extra that I didn't bring.
24 And this had to do with removing bags from a
25 facility. And there were some bills from carriers 14:20

1 and things of that nature. They were sort of
2 business documents.

3 Q. Okay. We'll get to that next. Put that
4 under here and do that one next; okay?

5 A. Okay. 14:21

6 Q. Now, we're going to be talking to
7 Mr. Thompson -- is it Mr. -- Dr. Thompson?

8 A. Correct.

9 Q. He's a Ph.D. mineralogist?

10 A. Yes. 14:21

11 Q. Dr. Thompson. And so, other than what's
12 on this page that he wrote in a memorandum to Paul
13 Vanderbilt, do you have any independent knowledge
14 through discussions with him or otherwise what
15 transacted that he talks about in this memo? 14:21

16 A. No. This characterizes my understanding
17 of his involvement in the analysis.

18 Q. When did you first learn that there was a
19 lawsuit against the R.T. Vanderbilt Company
20 concerning Mouldene talc? 14:21

21 A. When I was asked to look in my files and
22 see what I had that pertained to Mouldene. It was
23 a request from Hawkins & Parnell, so obviously it
24 must have had something to do with the case, so I
25 produced what I had. 14:22

1 Q. I apologize if I already asked you this,
2 but approximately when was that?

3 A. Oh, boy. It had to be, I don't know -- I
4 hate to -- it was at least three, four weeks ago
5 at least, I think. 14:22

6 Q. In that interim, have you talked to
7 Dr. Thompson about anything with respect to the
8 information that we've -- well, in the interim
9 have you had any conversations at all with Mr.
10 Thompson? Maybe not. 14:22

11 A. Yes, I have. And actually, I showed him
12 this and asked if he had remembered it, and if
13 this was, you know, what he thought of it now.
14 And it's obviously -- you know, he's talking about
15 an event that occurred quite a few years before he 14:23
16 even wrote the memorandum.

17 But what I got from the few discussions
18 I've had with him is that this is an accurate
19 depiction of what went on in terms of his
20 analyzing those International Talc five grades or 14:23
21 materials.

22 Q. Did he tell you whether or not in his
23 opinion Mouldene talc contains asbestiform
24 material?

25 A. Oh, I -- sure. He feels it does. It's a 14:23

1 high-fiber grade, as I mentioned before.

2 Q. Do you know -- well, so in your opinion,
3 does Mouldene talc contain asbestiform material?

4 MR. RADCLIFFE: Object to form. Asking
5 for an opinion from a fact witness. 14:23

6 THE WITNESS: My opinion is based on, you
7 know, what -- what a, you know, a knowledgeable
8 mineral scientist would tell me that's actually
9 looked at the material.

10 I wouldn't second-guess that person. I 14:24
11 don't second-guess Dr. Thompson and I wouldn't
12 second-guess Dr. Wylie. In both cases, they will
13 -- they will tell you that it has quite a bit of
14 talc fiber, very high proportion of talc fiber,
15 some of which would be properly described as 14:24
16 asbestiform.

17 BY MS. ABRAMS:

18 Q. And you have testified several times
19 regarding government regulations with respect to
20 asbestos and -- and whether or not Vanderbilt talc 14:24
21 fits under those regulations; correct?

22 A. Well, I've testified in regulations that
23 pertain to the definition of asbestos to that
24 extent, yes.

25 Q. You've testified that the Vanderbilt talc, 14:24

1 at least that comes out of the Arnold pit, does
2 not contain asbestos, correct, or asbestiform
3 material?

4 MR. RADCLIFFE: Object to form. Misstates
5 prior testimony. 14:25

6 THE WITNESS: You're using asbestiform as
7 a synonymous for asbestos. It's not.

8 BY MS. ABRAMS:

9 Q. You don't believe those are the same
10 thing? 14:25

11 A. No, they're not.

12 Q. Do you believe the government regulates
13 asbestiform material?

14 A. They -- they regulate the asbestiform
15 varieties of six specific minerals. 14:25

16 Q. Okay. And what are those?

17 A. The serpentine chrysotile, but the word
18 "chrysotile" means asbestos. They mean the
19 asbestiform variety of -- of tigerite and
20 lizardite which is the common way in which -- that 14:25
21 the serpentine grows. The chemical composition of
22 both are not exactly, but they're very close.

23 And then there are five amphiboles that
24 they regulate. And that the mineral science
25 community, as I understand it, also define as 14:25

1 asbestos is if they form in the asbestiform
2 crystal growth habit.

3 And those are crocidolite, or blue
4 asbestos, and that, like chrysotile, because it
5 was commercial, has a separate name. It's 14:26
6 actually -- the non-asbestiform variety has a
7 separate name called riebeckite.

8 Then the second amphibole is -- the
9 mineralogist would call it asbestiform grunerite.
10 Typically, it's referred to as amosite which is an 14:26
11 acronym of asbestos produced in mines in South
12 Africa.

13 But that has a more common, as they all
14 do, a more common non-asbestiform analog coming to
15 right -- grunerite. That's the type of amphibole 14:26
16 material that appears in some gold mines and iron
17 mines.

18 Then there is tremolite, anthophyllite and
19 actinolite.

20 These last three amphibole minerals were 14:26
21 rarely mined, if ever, in the case of actinolite
22 for commercial uses and they never had a separate
23 name.

24 But they -- just like the other three,
25 they -- they appear in two forms. They're very 14:27

1 rare asbestiform and the more common, everyday,
2 garden variety, crushed up stone, random crystal
3 formation type.

4 So, in other words, asbestos is one of
5 these six minerals that's asbestiform. If it's 14:27
6 not asbestiform and it's not one of these six
7 minerals, it's not asbestos. Period.

8 It's regulated as asbestos by any
9 regulatory agency in the country.

10 It's not defined as asbestos by mineral 14:27
11 scientists.

12 Q. So I'm going to move to strike that and
13 ask you again. And I appreciate your answer, but
14 I'm wondering if you could just answer. You said
15 there are six. 14:27

16 Could you just name the six so we have a
17 clear record of what they are?

18 A. Right. Chrysotile, serpentine;
19 crocidolite, amphibole; amosite, amphibole;
20 tremolite asbestos; anthophyllite asbestos; and 14:28
21 actinolite asbestos.

22 Q. Thank you.

23 So is it your understanding as a person
24 most qualified from R.T. Vanderbilt Corporation,
25 someone who's testified at hearings on this 14:28

1 subject for R.T. Vanderbilt, that the material in
2 the -- the asbestiform material in the Mouldene
3 that we just talked about --

4 A. The talc fiber.

5 Q. -- is not subject to government 14:28
6 regulation?

7 MR. RADCLIFFE: Object to the form.
8 Argumentative.

9 MS. ABRAMS: As asbestos.

10 THE WITNESS: As asbestos. No, it's not. 14:28

11 MR. RADCLIFFE: Same objection.

12 BY MS. ABRAMS:

13 Q. Now, you agree with me that -- well,
14 strike that.

15 Do you know one way or the other whether 14:29
16 this material, as we -- as it's described as an
17 asbestiform material with particular fiber
18 characteristics, causes -- or does not cause
19 disease any more or less than any one of those six
20 categories of material that you just described to 14:29
21 us?

22 Do you have an opinion on that?

23 MR. RADCLIFFE: Object to the form.

24 Opinion from a lay witness.

25 MS. ABRAMS: That's a "yes" or "no" 14:29

1 question.

2 THE WITNESS: I do have an opinion.

3 BY MS. ABRAMS:

4 Q. And you're not a medical doctor; right?

5 A. That's correct. 14:29

6 Q. And you're not a mineralogist; correct?

7 A. That's correct.

8 Q. So what would your opinion be based on if
9 you were to give it to me?

10 A. It would be based on health studies that 14:29
11 involve samples of material that contained talc
12 fiber, some of which was asbestiform.

13 BY MS. ABRAMS:

14 Q. Well, wait a second. Do you have health
15 studies in your possession that have in -- excuse 14:30
16 me -- have information in them that tell us
17 anything about health effects of Mouldene talc
18 as -- that came out of Mine No. 3 in Talcville?

19 A. Okay.

20 Q. That's a "yes" or no question. 14:30

21 MR. RADCLIFFE: Object to the form.

22 Argumentative.

23 BY MS. ABRAMS:

24 Q. That's a "yes" or "no" question. Do you
25 have studies -- 14:30

1 A. Okay. And here is why -- can I explain
2 why I'm having difficulty answering the question?

3 Q. Well, first you have to answer the
4 question, then you can tell me why you can't
5 answer it. 14:30

6 Can you answer the question?

7 A. If you help me, I might be able to help
8 answer the question.

9 Q. All right.

10 A. You're asking me about talc fibers, 14:30
11 specifically the talc fiber that is asbestiform.

12 Q. I'm asking you about Mouldene talc fiber.

13 A. Mouldene, oh, as different than the talc
14 fiber that's anywhere else?

15 Q. Exactly. I'm asking you about Mouldene 14:31
16 talc fiber that came out of Mine No. 3 that has
17 the characteristics that were in sample S-128.

18 Do you have any studies in your possession
19 as the custodian of records and person most
20 knowledgeable at Vanderbilt about the studies 14:31
21 regarding Mouldene talc that specifically address
22 the health effects of Mouldene talc on its workers
23 or anybody else?

24 MR. RADCLIFFE: Objection. Ignores prior
25 testimony. 14:31

1 THE WITNESS: Limited to just the way you
2 phrased the question, I would have to say no.

3 BY MS. ABRAMS:

4 Q. So, other than us actually talking to
5 Dr. Thompson about the memo he wrote, do you have 14:31
6 any personal knowledge to add to what he says in
7 this memo?

8 A. I do not.

9 MS. ABRAMS: Then we'll just mark that and
10 move on. 14:32

11 BY MS. ABRAMS:

12 Q. So let's move on to what we'll mark as
13 Exhibit 5, I believe, which is entitled "Note to
14 the File," and it's got your name on it. So I
15 take it that's your note to the file? 14:32

16 A. Yes, it is.

17 Q. All right.

18 (Plaintiff's Exhibit No. 5 marked for
19 identification.)

20 BY MS. ABRAMS: 14:32

21 Q. And you mentioned that you had other
22 documents with respect to this file. About how
23 many other documents do you have in your file that
24 address this issue?

25 A. Well, that are linked to this, about 12, 14:32

1 maybe 12 pages.

2 Q. We ask that you produce those to your
3 attorney and that they produce those to us because
4 they all have to do with this document that you
5 have raised as relevant to this case. 14:32

6 Can you explain to us why you believe this
7 is something important that you brought today?

8 A. I wouldn't say it was necessarily relevant
9 to this case. And I brought the file that said
10 "Mouldene" on it and what documents I had in that 14:33
11 folder. I don't know if removal of bags at a
12 facility in Syracuse, New York is very relevant to
13 the case, but it was -- that's why I just included
14 the summary. I could have attached 10 or 15 pages
15 of -- it cost "X" number of dollars for this truck 14:33
16 and the guy showed up at this time, and, you know,
17 that kind of stuff, if that was helpful. These
18 files were for me to help you.

19 Q. It has in there the name of the company
20 that did the abatement; correct? 14:33

21 A. Removal, yes.

22 Q. Well, it was an abatement contractor;
23 correct? It was a licensed abatement contractor
24 that did the removal; is that correct?

25 A. Yes. That's what it says. Again, I'd 14:33

1 have to go back and read, but I believe it was.
2 Because we were handling this material because it
3 had an asbestos label on it.

4 Q. And this was after 1987 or '89 when you
5 understand that Mr. Thompson -- or Dr. Thompson 14:34
6 was very clear that Mouldene did not contain
7 asbestos; correct?

8 A. That's right.

9 Q. And he actually -- and you conveyed that
10 to the people in -- at Armstrong Mill Company; 14:34
11 correct?

12 A. I did.

13 Q. And whose advice -- on whose advice was it
14 that a licensed abatement contractor should do
15 this in the abundance of caution? 14:34

16 A. It -- it evolved from a discussion between
17 myself and the company. As the memo indicates, we
18 felt that it was, even though it was not an
19 asbestos-containing material, it did have this
20 old, you know, label, this incorrect label on it. 14:34
21 And it was probably better to simply handle it as
22 though it did and it would be less of a problem.

23 If we did, we would -- it would be fewer
24 people raising issues and questions and then we'd
25 have to try to go through the whole discussion of 14:35

1 why it doesn't contain asbestos, and it was just
2 easier to just treat it this way. And I think
3 that's what the memo reflects.

4 Q. So rather than take a small sample, send
5 it to a lab, test it, and show that there wasn't 14:35
6 any asbestos in it, you chose to get an abatement
7 contractor, remove 300 bags and put them in a
8 special waste facility solely for regulated
9 material; correct?

10 MR. RADCLIFFE: Object to the form. 14:35
11 Argumentative.

12 BY MS. ABRAMS:

13 Q. Is that correct?

14 A. Yes.

15 Q. And what was the cost of that? 14:35

16 A. Again, those papers would -- would
17 indicate. I don't know exactly what it was.

18 Q. Was it thousands of dollars?

19 A. It was a couple thousand. It wasn't too
20 much. 14:35

21 Q. Do you know how much it would cost to take
22 a sample to a lab and test it?

23 A. Oh, probably -- depending on how much
24 analysis you had done, it could cost more, but
25 just -- 14:35

1 Q. Do you know?

2 A. Depending on the analysis that you had
3 done, it would -- you know, probably, I would have
4 asked to have the same type of analysis done that
5 Dr. Wylie did which is light microscopy, and so it 14:36
6 would have cost less.

7 Q. You have a sample; correct? Or you had
8 one then, K-100 Mouldene? You took a sample from
9 those bags and labeled it K-100 Mouldene to keep
10 and file with the records just in case; correct? 14:36

11 A. That's correct.

12 Q. And you still have that sample?

13 A. Yes, I do.

14 Q. And where is that sample?

15 A. I have it. 14:36

16 Q. And you didn't bring it here today?

17 A. No.

18 Q. But you knew this was all about Mouldene
19 and your lawyers told you to bring everything that
20 you had about Mouldene. 14:36

21 Have you given it to your lawyers?

22 MR. RADCLIFFE: Objection. Argumentative.

23 THE WITNESS: Well, I made the file
24 available.

25 MR. RADCLIFFE: Compound. 14:36

1 BY MS. ABRAMS:

2 Q. So they knew it was in there; correct?

3 A. I would assume. I made the file available
4 to them.

5 MS. ABRAMS: We are asking for that sample 14:36
6 of Mouldene talc. We've requested samples, we've
7 requested exemplars, and we've requested
8 everything that has to do with Mouldene talc.

9 Do you have any other samples --

10 MR. RADCLIFFE: I don't think you 14:37
11 requested it for today. Whether you requested --

12 MS. ABRAMS: No. We requested it months
13 ago.

14 MR. RADCLIFFE: I'm not sure that you
15 have.

16 BY MS. ABRAMS:

17 Q. Do you have any other samples of Mouldene
18 talc or know of any other samples of Mouldene
19 talc?

20 A. Yes, we do have a sample of Mouldene talc. 14:37

21 Q. Where -- what sample do you have?

22 A. Right now it is in Dr. Thompson's old
23 mineral lab in a brown container marked
24 "Mouldene."

25 Q. And how is that packaged? 14:37

1 A. In a sort of a rectangular metal box with
2 a brown wrapper around it.

3 Q. Like a paper bag?

4 A. No. It's not a paper bag. It's almost a
5 glued-on almost label that goes all the way around 14:37
6 it.

7 Q. Is it sealed up in any way?

8 A. Oh, yes.

9 Q. How is it sealed up?

10 A. The metal stopper on the top is pushed 14:37
11 down.

12 Q. Is there any dust on it?

13 A. I -- I -- I looked at it. I didn't see
14 any obvious dust, but I'm sure, you know, who
15 knows. 14:38

16 Q. Is that Mouldene sample S-158, if you
17 know?

18 A. I don't know whether it is or not.

19 Q. Do you know where Mouldene sample S-158
20 is? 14:38

21 A. I don't.

22 Q. And how do you know that Dr. Thompson has
23 that sample of Mouldene talc?

24 A. I was asked to see if we had any samples
25 and I checked the -- the -- you know, that lab to 14:38

1 see if -- if -- if there was, and, in fact, there
2 was.

3 Q. Is that the only --

4 MR. RADCLIFFE: Objection. Misstates
5 prior testimony. Argumentative. 14:38

6 BY MS. ABRAMS:

7 Q. Is that the only sample that you found?

8 A. It is.

9 Q. Except for the one that you have in your
10 own lab; correct? 14:38

11 A. In my office from -- from --

12 Q. I'm sorry, your office.

13 A. Yes.

14 Q. And where do you keep your sample?

15 A. It's actually a small bag, and it was 14:38
16 actually in the file (indicating). It's actually
17 really small.

18 Q. And you've had that sample in your file
19 since May 4, 1992?

20 A. That's correct. 14:39

21 Q. Has that sample ever been tested?

22 A. Not to my knowledge.

23 Q. You've never sent it out for testing?

24 A. No.

25 Q. Has Dr. Thompson's sample ever been 14:39

1 tested?

2 A. I -- I don't know. You'll have to ask
3 him. It may have, the one that was sent to Dr.
4 Wylie, but I don't have direct knowledge of that.

5 Q. Have you talked to Dr. Wylie recently in 14:39
6 the last several years?

7 A. In the last several years?

8 Q. Yes.

9 A. Yes.

10 Q. Have you talked to her in the last year? 14:39

11 A. Yes.

12 Q. Have you talked to her in the last six
13 months?

14 A. No. I don't think so.

15 Q. Have you talked to her about Mouldene talc 14:39
16 in the last year?

17 A. I have not.

18 Q. What have you talked to Dr. Wylie about?

19 A. On one occasion, I asked if she would be
20 available to participate in one of our cases and 14:40
21 she wasn't.

22 On another occasion we were talking -- I'm
23 working on a project and I wondered if she would
24 review it, which she agreed to do. But I have not
25 produced that to her yet. 14:40

1 Q. And that doesn't involve Mouldene talc?

2 A. Oh, no.

3 THE REPORTER: At a convenient time can we
4 take a break?

5 MS. ABRAMS: Sure. Let's take a break 14:40
6 right now.

7 THE VIDEOGRAPHER: We're going off the
8 record. And the present time is now 2:39 p.m.

9 (Recess taken.)

10 THE VIDEOGRAPHER: We're back on the 14:52
11 record. The present time is 2:51 p.m.

12 BY MS. ABRAMS:

13 Q. Let's turn now to the next exhibit, which
14 is marked at the top "R.T. Vanderbilt Company, 30
15 Winfield Street, Letter to Georgia-Pacific." 14:53

16 Was Georgia-Pacific, to your knowledge, a
17 customer of R.T. Vanderbilt?

18 A. To the extent it's suggested in the
19 correspondence, that's as far as I can go.

20 Q. Do you have any other knowledge of 14:53
21 Georgia-Pacific other than the fact that the
22 company wrote a letter to them?

23 A. No.

24 Q. Well, let me ask you -- did you -- I've
25 got these all these paper-clipped together. 14:54

1 Did you produce these four pages as one
2 document, or are we looking at these separately?

3 A. Three actually.

4 Q. And which are the three, the R.T.

5 Vanderbilt Company?

14:54

6 A. Right.

7 Q. Then there's a document after that which
8 is a picture of something.

9 A. Right, terrible picture of a bag label.

10 Q. And then what else?

14:54

11 A. Material safety data sheet that was
12 produced at the time.

13 MS. ABRAMS: So let's mark those next
14 three documents as Exhibit 6.

15 (Plaintiff's Exhibit No. 6 marked for
16 identification.)

14:54

17 BY MS. ABRAMS:

18 Q. On the bottom of the first page on that
19 document, it -- there's a -- it says, "PL1 Morvay
20 5-1-80."

14:55

21 Do you know what that is? That stamp in
22 there?

23 A. I don't.

24 MR. RADCLIFFE: Is that the document that
25 we're going to mark? Do you have that in front of

14:55

1 you?

2 MS. ABRAMS: Just a second. I'm doing
3 something here. I'm trying to find the second
4 page of this.

5 BY MS. ABRAMS:

14:55

6 Q. Do you believe that that is an exhibit?
7 It says, "PL1 Morvay."

8 Have you ever heard the name Morvay?

9 A. It does sound vaguely familiar like it
10 might have been a case at some point.

14:56

11 Q. Might that have been a case back around
12 the time when you first started working for R.T.
13 Vanderbilt Company?

14 A. Oh, Morvay -- that -- you know, it just
15 refers to Pamela Morvay, I see. So she must have
16 been a specialties department, that must have been
17 a clerical person in the specialties department,
18 the sales part of -- somebody in sales.

14:56

19 Q. I see. And is there still a specialties
20 department at the R.T. Vanderbilt Company?

14:56

21 A. You know, I have to say I'm not sure.
22 There was up until a couple of years ago. I'm not
23 sure now.

24 Q. Okay. What was the specialties
25 department? What did they do?

14:57

1 A. Well, my understanding was, they were sort
2 of miscellaneous. We have different departments
3 for different product applications. This was sort
4 of the miscellaneous one.

5 Q. So is it fair to say that -- strike that. 14:57

6 Is it the product that was being talked
7 about in here that was miscellaneous or the
8 warning or the discussion? What is miscellaneous
9 about this document?

10 MR. RADCLIFFE: Objection. Argumentative. 14:57

11 BY MS. ABRAMS:

12 Q. If you know?

13 A. I'm not sure I understand the -- the
14 question. It's -- I -- I refer to miscellaneous
15 as a specialties department. 14:57

16 Q. This was a letter to a customer; correct?

17 A. That's -- that's correct.

18 Q. Why would a letter to a customer come out
19 of the specialties department, if you know?

20 A. Well, it would be because the specialties 14:58
21 department placed the order, was working with that
22 customer. So they had a salesman that interfaced
23 with Georgia-Pacific.

24 Q. Was the product under discussion one of --
25 a specialty product? 14:58

1 A. No. Specialties, that's what I referred
2 to as miscellaneous. We have departments for
3 rubber, you know, sales, the products that go into
4 rubber products, sales. We have paint and paper,
5 products that go into paint and paper. It's sort 14:58
6 of linked to the -- to the end use of products.

7 Specialties sort of fell into a gray area.
8 It may not have fit in one of the other
9 departments, or it may just be that a salesman
10 happened to be living, you know, near that 14:58
11 particular plant or -- or customer and ended up
12 being managed through that department.

13 Q. Do you have an understanding of what
14 Mouldene talc was used for?

15 MR. RADCLIFFE: Objection. Beyond the 14:59
16 scope.

17 THE WITNESS: You know, I really don't.
18 BY MS. ABRAMS:

19 Q. And this letter was in your file?

20 A. Yes, it was. 14:59

21 Q. Correct? What is your understanding of
22 the substance of this letter? Why did you produce
23 it today?

24 A. Well, it's all linked to what Dr. Thompson
25 described in this memorandum to Paul Vanderbilt 14:59

1 that we discussed a little while ago.

2 This was the offshoot of Dr. Thompson
3 mischaracterizing -- or characterizing the
4 materials -- or some of the material in these five
5 grades as being asbestos when actually that was an 14:59
6 error, when -- when, in fact, it wasn't.

7 Q. This is a 1975, January 2nd letter. And
8 in that letter, Mouldene talc is listed as an
9 asbestiform, fibrous asbestiform talc; correct?

10 A. I must say I'm confused by the last 15:00
11 paragraph that the -- that the salesperson wrote.
12 It doesn't make any sense to me.

13 Q. And that paragraph reads, "As you know,
14 the mineral fibers present in these grades which
15 make them" -- my copy is not readable. 15:00

16 A. I think it's industrially useful.

17 Q. -- "are the asbestiform varieties of those
18 minerals normally contained in the commercial talc
19 and consequently fall under Section 1910.93A of
20 the OSHA asbestos standard." 15:00

21 What is it about that, that you don't
22 understand?

23 A. Well, they don't fall under that section.
24 And they are not -- they are -- you know,
25 asbestiform variety of these minerals. It would 15:00

1 have to be one of the six -- six that we talked
2 about a little while ago. It's none of those, so
3 it -- it has -- it is not asbestos. So her
4 description here is just incorrect.

5 Q. So is it your understanding that on 15:01
6 January 2nd, 1975, the asbestiform varieties of
7 the minerals under discussion were not regulated
8 under Section 1910.93A of the OSHA asbestos
9 standard?

10 A. The asbestiform varieties of the minerals 15:01
11 in these five grades were not. The confusion
12 existed in that the company believed that one of
13 those six minerals, either anthophyllite asbestos
14 or chrysotile I think it was anthophyllite
15 asbestos existed in these five grades and 15:01
16 consequently were prepared to label it as such and
17 did, in fact, label it as such.

18 Q. So what you're saying is that they didn't
19 make a mistake in how they analyzed the fiber,
20 they analyzed the fiber correctly, but they 15:02
21 didn't -- but the way the fiber was, wasn't
22 regulated; is that what you're saying?

23 MR. RADCLIFFE: Object to the form.
24 Misstates prior testimony.

25 MS. ABRAMS: Do you understand the 15:02

1 question?

2 MR. RADCLIFFE: Misstates prior testimony.

3 THE WITNESS: No. I -- I understand that
4 as I said, this paragraph at the bottom is not
5 correct. This is not properly stated. 15:02

6 BY MS. ABRAMS:

7 Q. Is it your understanding that in January
8 1975, the product Mouldene talc was not an
9 asbestiform-containing product?

10 A. January 2nd, 1975, the company believed it 15:02
11 contained asbestos, which would have been one of
12 those six minerals in the asbestiform variety that
13 I described to you before. That's what they
14 believed. They believed that based on comments
15 that Dr. Thompson made to them in error. 15:02

16 Q. I move to strike as nonresponsive.
17 Can you please read back the question.
18 (Record read.)

19 THE WITNESS: Can you read the first part
20 again?

21 (Record read.)

22 THE WITNESS: It wasn't discovered not to
23 be, and it never was.

24 BY MS. ABRAMS:

25 Q. It had no asbestiform components in 1975? 15:03

1 A. It's not the talc fibers asbestiform based
2 on reports similar to Dr. Wylie's report that we
3 discussed before. So, yes, it contained some
4 asbestiform fiber, this talc fiber that's not
5 asbestos. 15:03

6 Q. Isn't it true, Dr. Kelse, that
7 mineralogically, based on Dr. Wylie's report of
8 fibrous talc, the asbestiform fibrous talc, that
9 material, mineralogically basically in -- in
10 certain ranges looks the same as chrysotile 15:04
11 asbestos?

12 MR. RADCLIFFE: Object to the form.
13 Argumentative.

14 BY MS. ABRAMS:

15 Q. Is that a correct statement? 15:04

16 MR. RADCLIFFE: Same objection.

17 THE WITNESS: It looks the same. The
18 meaning of the term "asbestiform," looks like.

19 Oh, and thank you for the promotion. It's
20 Mr. Kelse. 15:04

21 BY MS. ABRAMS:

22 Q. Okay. So you agree with me that the
23 Mouldene talc that Dr. Wylie looked at under the
24 microscope, the appearance of the fiber, the
25 length of it, the width of it, the aspect ratio of 15:04

1 it, every aspect of it, some of those fibers
2 looked exactly like chrysotile asbestos?

3 A. I would say "resembled." I don't know if
4 you'd use the word "exactly." I don't know that
5 there is an exact description to any -- you know, 15:05
6 even the asbestos fibers are different depending
7 on where they come from, and -- you know.

8 But they are of a certain category, have
9 certain characteristics. They met those
10 characteristics, looked like it, that they met 15:05
11 those characteristics. That's what the term
12 "asbestiform" means. That's what she said she saw
13 in -- in the Mouldene, and they were talc fiber.

14 MS. ABRAMS: I move to strike as
15 nonresponsive. 15:05

16 Could you read the question back, please.
17 (Record read.)

18 MR. RADCLIFFE: Objection. Argumentative.
19 Asked and answered.

20 BY MS. ABRAMS: 15:06

21 Q. Is that correct?

22 A. That it looked like asbestos?

23 Q. Chrysotile. In every respect. Is that
24 correct?

25 MR. RADCLIFFE: Objection. Argumentative. 15:06

1 THE WITNESS: Oh, no. Actually, that's
2 not -- chrysotile is -- is -- not in every
3 respect. Chrysotile is a tubed -- you know, it's
4 a -- it's a phyla silica. It's rolled on itself.

5 Talc fiber is not like that. That's not 15:06
6 the form of it. The out -- the outer form, length
7 and width and some splitting, some curvature,
8 that's consistent with an asbestos fiber.

9 But that's not in every form. Every form
10 would also include the individual crystal fibrils 15:06
11 as being hollow-cored material, and -- and talc
12 fiber is not that.

13 BY MS. ABRAMS:

14 Q. In terms of the aspects of the fiber under
15 the Stanton hypothesis, could you differentiate 15:06
16 those fibers from chrysotile fibers that Dr. Wylie
17 was talking about when she was looking at fibrous
18 talc?

19 MR. RADCLIFFE: Objection. Vague and
20 ambiguous.

21 BY MS. ABRAMS:

22 Q. In the Mouldene specifically.

23 MR. RADCLIFFE: Same objection.

24 THE WITNESS: Could you just --

25 BY MS. ABRAMS: 15:07

1 Q. That she called asbestiform.

2 MR. RADCLIFFE: Same objection.

3 THE WITNESS: Well, she --

4 BY MS. ABRAMS:

5 Q. Can you answer that question? 15:07

6 A. Well, she differentiated it using
7 refractive index.

8 Q. From chrysotile?

9 A. Sure.

10 Q. She never mentioned chrysotile one way or 15:07
11 the other, did she?

12 A. No. No, she didn't.

13 Q. So she didn't differentiate it from
14 chrysotile, did she?

15 MR. RADCLIFFE: Objection. Argumentative. 15:07

16 THE WITNESS: Well, then, she would have
17 said it was chrysotile.

18 BY MS. ABRAMS:

19 Q. She didn't differentiate it from
20 chrysotile, did she, in that report? 15:07

21 MR. RADCLIFFE: Objection. Argumentative.
22 Asked and answered.

23 THE WITNESS: I don't think -- there was
24 no chrysotile reported in her papers.

25 BY MS. ABRAMS: 15:07

1 Q. She didn't say there was no chrysotile in
2 the material, did she?

3 A. No.

4 Q. Thank you.

5 Now, with respect to the January 2nd, 15:07
6 1975, letter, this is a letter telling
7 R.T. Vanderbilt -- by R.T. Vanderbilt telling
8 their client, Georgia-Pacific that there is
9 asbestos -- regulated asbestos material in the
10 Mouldene talc; correct? 15:08

11 A. That's what it says.

12 MR. RADCLIFFE: Objection. Argumentative.

13 BY MS. ABRAMS:

14 Q. And that they're putting a warning on the
15 material; correct? 15:08

16 A. That's correct.

17 MR. RADCLIFFE: Mr. Kelse, once again,
18 wait a heartbeat, so if I have an objection we
19 don't speak on top of each other.

20 THE WITNESS: Okay. 15:08

21 BY MS. ABRAMS:

22 Q. Do you know -- strike that.

23 These other fibers, fiber 1, fiber 2, 6,
24 apparently, and fiber MPL fiber, those apparently
25 were fibers that also came out of the 15:08

1 International Talc Company; correct?

2 A. Yes.

3 Q. Do you know more specifically what mine
4 those fibers came from?

5 A. My heartbeat... 15:09

6 Q. That's a "do you know"?

7 A. Do I know?

8 Q. Yes.

9 A. They're International Talc products from
10 Talcville. 15:09

11 Q. From Mine 3?

12 A. Yes.

13 Q. So it's your understanding that those all
14 were mined out of Mine 3?

15 A. That's my understanding, yes. 15:09

16 Q. And not the Arnold pit?

17 A. That's correct.

18 Q. And how do you know that?

19 A. It's always been described that way.

20 Q. By who? 15:09

21 A. By Dr. Thompson. He was asked to look at
22 those grades because they came out of Talcville.

23 Q. And do you know how he knows that?

24 A. You'll have to ask him.

25 Q. Now, on the second page of this three-page 15:09

1 exhibit, you've produced what is a very
2 difficult-to-read document.

3 Where did you find this document?

4 A. Okay. This is actually a photograph of
5 the bags that relate to that plant or warehouse in 15:10
6 Syracuse, New York that we talked about a little
7 earlier. This is one of those 12 or 15 pages.

8 Q. So this is a -- a photo of a bag that you
9 found in 1992?

10 A. Correct. 15:10

11 Q. And you took it in 1992?

12 A. Yes. That's when I visited the location.

13 Q. Did you take this photograph?

14 A. I don't recall whether I did or not. I
15 know I obtained it at the time. I'm not sure 15:10
16 whether I took it or not.

17 Q. Do you have the photograph?

18 A. No, I don't. I have other photographs but
19 not this specific one.

20 Q. What other photographs do you have? 15:10

21 A. The -- the bags on a pallet in the
22 warehouse. The bags on a pallet in the truck. I
23 have those two photographs.

24 Q. Where are those photos?

25 A. In that same file. 15:11

1 Q. And you did not bring those with you
2 today?

3 A. That's correct.

4 Q. Is there some reason why you didn't bring
5 those? 15:11

6 A. Well, I put these files together with the
7 idea in mind to -- that these would help me to
8 explain questions that I thought might be asked of
9 me, not necessarily responsive to, you know, your
10 discovery. 15:11

11 Q. So you brought them not as responsive to
12 the notice of deposition but just that you felt
13 would help you in testifying?

14 A. That and where I did see that there was a
15 document missing, this cursory review that I -- I 15:11
16 made of that disk such as those couple studies
17 that we mentioned in the health file. I brought
18 those for that reason.

19 So it's really a combination, but
20 predominantly to help me try to explain these 15:12
21 issues, although I'm told my job isn't to explain
22 anything.

23 Q. Okay. So these are in your Mouldene file,
24 all the photos?

25 A. Yes. 15:12

1 Q. And is there a -- is the photo that
2 belongs with this copy easier to read than the
3 copy that you brought here?

4 A. If I can find it, find out where it is.

5 Q. Well, it's in your Mouldene file; correct? 15:12

6 A. Yeah. I provided the -- that file when --
7 when I was requested for anything I had on
8 Mouldene. And -- and that was -- the photograph
9 was with that.

10 And when I got my file back, it wasn't in 15:12
11 it. It was just the picture of it on the paper.
12 So I don't know where the actual photograph went.

13 Q. So you gave the photograph with your
14 entire Mouldene file to Hawkins & Parnell; is that
15 correct? 15:13

16 A. I assume that's where it went, yes.

17 Q. Did you see any of that file in the
18 documents on the disk, any of those photos?

19 A. I did not. It doesn't mean it was there
20 or not. It was a very cursory look. 15:13

21 Q. And what else was missing from your file
22 when you got it back?

23 A. That's the only --

24 MR. RADCLIFFE: Objection. Argumentative.

25 THE WITNESS: That's the only thing that 15:13

1 I -- that I know for sure.

2 BY MS. ABRAMS:

3 Q. And I'm asking that that entire Mouldene
4 file be produced without any need to go to court
5 and ask for it. I'd appreciate that immediately 15:13
6 so that we can continue to depose this witness in
7 a timely manner.

8 Do you have any understanding from memory
9 what's on this picture?

10 A. Well, the words that I read at the top are 15:13
11 the same as the words on the memo.

12 Q. All I can read is, "Caution: Product
13 contains" and it looks like "asbestos." Huh? Is
14 that correct?

15 A. That's what it looks like. 15:14

16 Q. What else do you actually see on that
17 page?

18 A. On the page or on the picture?

19 Q. In the picture.

20 A. Well, it says "asbestos fibers" -- 15:14

21 Q. No, no, no. On the page with the
22 depiction, not in the letter.

23 Can you --

24 A. Oh, here?

25 Q. -- make out anything else on there? 15:14

1 A. No. It's pretty --

2 Q. I'm pointing to the middle of the page.

3 Do you know what that word is? Does that
4 say "Mouldene" in the picture, do you remember?

5 A. I don't -- I don't remember. It could -- 15:14
6 it could say that. I don't know. It's hard --
7 hard to tell.

8 Q. It would be hard to know without the
9 photo; correct?

10 A. I -- I would agree. 15:14

11 Q. But you'd be able to tell that from the
12 photo that you gave to the Hawkins & Parnell firm;
13 correct?

14 MR. RADCLIFFE: Objection, argumentative.

15 THE WITNESS: I believe so. We'd have to 15:14
16 see. BY MS. ABRAMS:

17 Q. And where did you get this picture? Did
18 you take the picture -- the -- strike that.

19 Where did you get this copied?

20 A. It was in the folder when it was delivered 15:15
21 back to me.

22 Q. So the Hawkins & Parnell firm delivered
23 back to you with your file this particular picture
24 in substitution for the photo; is that correct?

25 A. That's what it appears to be. 15:15

1 Q. So we've learned that the company sent a
2 warning to its customer Georgia-Pacific about its
3 Mouldene and other fibers from line No. 3 that
4 said they had asbestos in it.

5 We've learned that in 1992 you saw some 15:15
6 product that had Mouldene on it at someone's plant
7 that wasn't Georgia-Pacific that had some kind of
8 cautionary label on it, which is not readable from
9 the picture, but you have a picture of that;
10 correct? Somewhere? 15:15

11 A. Somewhere.

12 Q. And what -- what do you believe we can
13 learn from the material safety data sheet that
14 you've produced?

15 A. Well, it's consistent with the label. 15:16
16 It's actually -- says "asbestiform talc," and it
17 says "and/or" asbestiform anthophyllite, which
18 is -- you know, if it's asbestiform talc, it's not
19 asbestos. But if it's asbestiform anthophyllite,
20 it would be. 15:16

21 Q. Nobody said that back in 1975, did they?
22 Do you have a reference to some -- some government
23 agency saying that if it's asbestiform talc, it's
24 not asbestos; but if it's asbestiform
25 anthophyllite, it is? 15:16

1 A. I don't know what they were saying in 1975
2 in terms of how they defined it.

3 Q. So -- but it's your understanding
4 that's -- that's the regulation today is that's
5 how it's defined; correct? 15:17

6 A. Today that would be, yes.

7 Q. And is that written in the regulation that
8 asbestiform talc is not regulated? Is there
9 something that you can point to me in a federal
10 regulation that says asbestiform talc is not 15:17
11 considered part of this regulation?

12 A. No --

13 MR. RADCLIFFE: Objection. Compound.

14 THE WITNESS: It would be no different
15 than it would be Nike sneakers is not mentioned. 15:17
16 If it's not mentioned, if it's not specifically
17 designated as asbestos, it's not asbestos from a
18 regulatory standpoint.

19 MS. ABRAMS: Move to strike as
20 nonresponsive. 15:17

21 BY MS. ABRAMS:

22 Q. Is there somewhere in the regulation that
23 you can point to me that says talc that is
24 asbestiform is not subject to this regulation?
25 Does it specifically say that? 15:17

1 A. No.

2 Q. Now, this document has a stamp on it that
3 is an Exhibit No. 6 to a case called Ballard
4 versus Owens.

5 Do you know anything about that case? 15:18

6 A. I don't.

7 Q. Were you -- did you give a deposition in
8 that case?

9 A. I certainly don't recall. It looks like
10 the date is '79, so... 15:18

11 Q. So this was a case in 1979. And do you
12 know what the disease was in that case?

13 MR. RADCLIFFE: Objection. Assumes facts
14 not in evidence.

15 THE WITNESS: I have no idea. 15:18

16 BY MS. ABRAMS:

17 Q. Did you ever find out what that case was
18 about?

19 A. No.

20 Q. Did you ever think that you should find 15:18
21 out what that case was about?

22 Did it ever concern you that there was a
23 case in 1979 where this exhibit about
24 R.T. Vanderbilt Mouldene talc material safety data
25 sheet was an exhibit? 15:19

1 A. No. It wouldn't concern me.

2 Q. Now, you have several other pages in here,
3 I believe four of them, which are -- appear to be
4 PowerPoint slides; correct?

5 A. That's correct. 15:20

6 Q. And these are your depictions of various
7 matters contained in various articles and other
8 materials in your Mouldene file?

9 A. Yes. They pertain to the talc fiber
10 that's referenced in the Mouldene file. 15:20

11 Q. Okay. But these are your particular
12 slides?

13 A. Yes.

14 Q. So these would be your opinion here;
15 right? 15:20

16 Essentially, you created these for
17 purposes of presenting your understanding and your
18 opinion, not something that is a historical
19 document or something like that?

20 A. That would be -- 15:20

21 MR. RADCLIFFE: Objection. Argumentative.
22 Compound.

23 BY MS. ABRAMS:

24 Q. Is that correct?

25 A. That would be correct. 15:21

1 MS. ABRAMS: Now, I want to go off the
2 record.

3 And before I go off the record, Mr. Kelse,
4 you've been produced as the custodian of these
5 records, and, I don't care when we do this, but I 15:21
6 need to have you look through that big stack of
7 documents and tell me which of those documents you
8 believe go to your testimony as custodian which
9 you think you have and what's missing.

10 For example, we just found out that 15:21
11 there's a photo that's missing, and I need to know
12 what wasn't produced and what was produced.
13 You're the only person for all these categories
14 that can tell me all about that.

15 So I'm happy to have him do that, come 15:21
16 back and continue that part of his deposition
17 sometime at a later time, so we're not wasting
18 three hours here.

19 MR. RADCLIFFE: Well, I'm not sure I -- I
20 agree with you. There's no photo missing from 15:22
21 what you've requested, I think. I think that
22 we've provided you what you've requested. The
23 photo is missing from a file that Mr. Kelse
24 brought to help explain his understanding.

25 And the photo isn't missing. There's a 15:22

1 photocopy. The photo itself is not in the file,
2 but there is a photocopy. So I don't agree that
3 that's a missing document.

4 I also think --

5 MS. ABRAMS: Let me explain to you. I'll 15:22
6 meet and confer with you on this.

7 We asked specifically for all documents
8 regarding -- with information regarding warnings
9 Vanderbilt provided to anyone regarding the
10 presence of asbestos in Mouldene talc. And our 15:22
11 definition of a document includes a photograph.
12 And a piece of paper that is unreadable is not the
13 best evidence and not what we asked for. We asked
14 for the photograph.

15 So I beg to differ that Vanderbilt has 15:22
16 produced everything, particularly since its
17 attorneys have the photograph.

18 But I don't want to sit and quibble about
19 that. I just want to know whether this custodian
20 of records that you've produced that hasn't even 15:23
21 looked at the custodian of records' submission
22 that we sent him -- so if he's the custodian, I
23 need him to look at the documents or look at the
24 disk or look at whatever you want and confirm that
25 everything that he knows of, everywhere that he's 15:23

1 looked, and that it's all there.

2 That's what I'm entitled to under
3 California law. So I'm not trying to be
4 difficult, but my understanding from his testimony
5 is that he never saw this document, he never 15:23
6 looked for anything other than what he felt like
7 bringing with him today, and he hasn't reviewed
8 the documents.

9 And yet, he's here as Vanderbilt's
10 representative with respect to the categories of 15:23
11 things that we've asked for.

12 So I'm meeting and conferring with you and
13 I'm trying to work this out as best as we can to
14 move forward and -- you know, so that I don't have
15 to go to court and ask the judge to exclude all of 15:24
16 your evidence because you haven't properly
17 produced it.

18 So I'm happy to do it however you want,
19 but I'm just trying to get the information that I
20 want and make sure it's all covered. 15:24

21 MR. RADCLIFFE: First of all, Mr. Kelse
22 said he did look through the documents that were
23 produced. He said that he didn't go through them
24 page by page, but he did look through them.

25 I also don't think it's required that he 15:24

1 look at the documents requested as long as he's
2 aware of the documents that are requested. You've
3 never asked him if he was requested to look for
4 specific documents and why he was requested to
5 bring specific documents. Those are not questions 15:24
6 that you asked.

7 We don't have to show him the list, as
8 long as he's aware of what he's supposed to bring.

9 Now, he made a comparison according to his
10 testimony. He tried to look through the CD that 15:24
11 was produced to you.

12 He's identified some documents that were
13 not included on the CD. I'm not sure -- I
14 think we -- frankly, I have to look at those
15 documents to see if they were even requested. 15:25

16 Just because they were kept in a file
17 doesn't mean that you requested them. Your very
18 specific requests were responded to by prior
19 counsel. If they missed a document and you're
20 entitled to it, we'll give it to you. But I don't 15:25
21 know that that document exists, as I sit here
22 right now.

23 MS. ABRAMS: Well, I don't know if it
24 exists either. But it did exist, and it existed
25 before it went to Hawkins & Parnell. 15:25

1 MR. RADCLIFFE: Well, you're talking about
2 the photograph. I'm talking about other
3 documents.

4 MS. ABRAMS: Look. I'm not here to argue
5 with you. This man is here as your corporate 15:25
6 representative who is your custodian of records.
7 And my understanding is, that basically he flipped
8 through a disk, but he didn't really look for
9 anything.

10 And he can't say really whether the stuff 15:25
11 on the disk is a complete rendition of what is
12 actually in the R.T. Vanderbilt files with respect
13 to this corporation.

14 If you want to let that stand, that's
15 fine. I'll just move to exclude all your 15:26
16 evidence. I'd like to give you the opportunity
17 because we're going to be taking his deposition
18 again, to go and do the proper custodial search
19 and have him look through his files and have him
20 talk to people and have him do whatever he needs 15:26
21 to do so that we can get the information that we
22 need on Mouldene talc. He's got a sample in his
23 file. Mr. Thompson has a sample.

24 I mean, come on. We filed this case a
25 long time ago. We sent out this deposition notice 15:26

1 from May 26th. We're sitting here in August
2 taking a deposition. And we just need to expedite
3 this, so I'd like to expedite as best we can. I
4 understand you're new to the case, but the -- but
5 your client is not new to this case and we need to 15:26
6 just move forward.

7 So you can -- you know, if you want to go
8 off the record, take a break later, we'll talk
9 about it. If you don't want to talk about it
10 anymore, that's fine. 15:27

11 I'm just trying to work with you so that
12 we can be sure that we have everything that we
13 need in the case concerning Mouldene talc which
14 isn't something that I understand has come up many
15 times before with the R.T. Vanderbilt Company. 15:27

16 MR. RADCLIFFE: I'll be happy to talk to
17 you. My understanding is that you have never --
18 on the sample, my understanding is that your first
19 request for the sample was made in discovery that
20 was filed at the end of July, a response to which 15:27
21 is not yet due.

22 So if you're implying that we've had a
23 sample and we haven't produced it to you for some
24 reason, that's not accurate. Our time to even
25 respond to that discovery has not yet run. 15:27

1 As I said, I think directly in response to
2 documents, it's my understanding that counsel went
3 through the documents and produced what you asked
4 for.

5 Just because Mr. Kelse has six inches of 15:27
6 documents in his file doesn't mean that you asked
7 for all six inches.

8 If you only asked for documents that were
9 perhaps three documents out of that pile that were
10 responsive, that's what you were given. 15:28

11 I also said, if there are documents that
12 should have been produced and have not been
13 produced, we'll be happy to produce them.

14 THE VIDEOGRAPHER: I have to change tape.

15 MS. ABRAMS: Okay. Change the tape. 15:28

16 THE VIDEOGRAPHER: Okay. This is the end
17 of Tape No. 2, August the 10th, 2009, the
18 deposition of John Kelse.

19 We're going off the record at 3:26 p.m.

20 (Brief recess taken.)

21 THE VIDEOGRAPHER: This is the beginning
22 of Tape No. 3, August the 10th, 2009, the
23 deposition of John Kelse.

24 We're back on the record at 3:48 p.m.

25 BY MS. ABRAMS: 15:50

1 Q. Mr. Kelse, I want to go through some of
2 these categories. I'm going to begin with
3 Category No. 4, Studies on the Presence of
4 Asbestos in Mouldene Talc.

5 You've been produced as the custodian of 15:50
6 those records, I believe, and the person most
7 knowledgeable.

8 Do you, other than what you've produced
9 today, know of any other studies of Mouldene?

10 A. No, I don't. 15:51

11 Q. You don't have Mr. Thompson's original
12 study of that material where he believed it
13 contained asbestos, do you?

14 A. No, I don't.

15 Q. Do you have any pre-studies by McCrone? 15:51

16 A. On -- for Mouldene?

17 Q. Correct.

18 A. Not that I'm aware of.

19 Q. Do you know -- other than asking Mr.
20 Thompson for those studies, do you know where any 15:51
21 studies, other studies of Mouldene, if they exist,
22 would be?

23 A. I would -- I've made an effort to try to
24 be the central repository for all analytical
25 reports that pertain to our talc. 15:51

1 So, to that extent, I would hope that, in
2 my chronological order of those types of reports,
3 if there was another report that addressed
4 Mouldene in regard to whether it did or didn't
5 contain asbestos, I would have it. 15:52

6 Q. Do you believe there would be -- well,
7 strike that.

8 Do you believe that analytical reports are
9 kept at the production facilities?

10 A. I don't know what the production 15:52
11 facilities might have. I have -- I'm most
12 interested in that I have every one that is
13 available to us. I can't speak for an analysis
14 that was done by someone that I am not aware sent
15 out material out to be analyzed and never sent me 15:52
16 a copy of a report or told me anything of the sort
17 was produced. I just have copies of -- of reports
18 that I -- I am aware of.

19 Q. In preparation for your deposition today,
20 is it fair to say you did not search at the mill 15:53
21 production facilities or any lab for any
22 analytical studies or otherwise, any kind of
23 studies of presence -- regarding presence of
24 asbestos in Mouldene?

25 A. That's correct. 15:53

1 Q. And other than the places I just
2 mentioned, are there any other places at
3 R.T. Vanderbilt that might have that information
4 that you can think of, other than perhaps Mr.
5 Thompson? 15:53

6 A. No. Those would be the sources.

7 Q. With respect to information Vanderbilt may
8 have received from any source regarding studies of
9 the presence of asbestos in Mouldene talc, in
10 other words, studies other than by or for 15:54
11 Vanderbilt, do you know of any of those?

12 A. I'm not aware of any, other than what I
13 mentioned before. Those I have copies for are the
14 only ones that I am aware of.

15 Q. If -- do you know whether customers have 15:54
16 ever had Vanderbilt talc analyzed?

17 A. Any Vanderbilt talc or?

18 Q. Correct?

19 A. I believe they have.

20 Q. And when a customer has reason to have 15:54
21 Vanderbilt talc analyzed and they decide to send
22 it to Vanderbilt Talc, who do they send it to? Or
23 what department?

24 A. I would say it would come to me. Whether
25 it was addressed to me, it may go to -- to whoever 15:54

1 they know as being their contact with Vanderbilt
2 who could be a salesman.

3 But, one way or another, I would hope that
4 I would get all the reports. I believe I -- I --
5 I have them, but I can't speak for things I -- I 15:55
6 don't know about.

7 Q. Well, is there a procedure within
8 Vanderbilt if a customer has a complaint or a
9 report of that nature, that that procedure is to
10 send it to you in your capacity as the Vanderbilt 15:55
11 manager?

12 A. I wouldn't call it a formal procedure, but
13 it's -- it's generally recognized that that's
14 what's done.

15 Q. Did you talk to any of the sales -- people 15:55
16 in the sales department to determine whether they
17 had in their files any customer correspondence
18 with respect to the presence of Vanderbilt -- of
19 asbestos or the question of asbestos in any
20 Vanderbilt talc? 15:55

21 A. No, I did not.

22 Q. And if they were kept in the files of the
23 sales department, what files would they be kept
24 in?

25 A. I -- I don't know. 15:56

1 Q. Is there a customer complaint department?

2 A. Yes, there is.

3 Q. Who heads that department?

4 A. I believe that would be Jerry Dvornek.

5 Q. And did you speak to Mr. Dvornek about 15:56
6 this matter?

7 A. No, I didn't.

8 Q. Do you know if he keeps files of customer
9 complaints?

10 A. Well, he is in charge of the quality 15:56
11 control program which is linked to customer
12 complaints. He keeps records of complaints, types
13 of complaints, broken bags, shipments, things of
14 that nature. And he provides a report of those
15 types of incidents. 15:56

16 I have never seen, in the time I've been
17 there, the quality and the customer complaint
18 department handle an issue or question on
19 Vanderbilt talc in terms of its composition. It's
20 always -- maybe two over a span of 20 years, and 15:57
21 it was just directed to me.

22 Q. What were those two?

23 A. As I said, maybe two, it would be
24 something down in that range. These would be the
25 question you'd almost anticipate: Well, I heard 15:57

1 that Vanderbilt talc may have asbestos in it. Is
2 that true? That's more or less the type of
3 question that we would commonly receive.

4 Q. Is that some kind of -- strike that.

5 Does Mr. Dvornek keep a file on those 15:57
6 matters, to your knowledge?

7 A. I don't know if he keeps a file on those
8 types of... they wouldn't be complaints, they'd
9 be questions.

10 Q. Did you ask him? 15:58

11 A. No.

12 Q. In preparation for your deposition?

13 A. No.

14 Q. Do you keep a file on those types of
15 matters? 15:58

16 A. I do.

17 Q. What is the file entitled?

18 A. The file is broken down by product type.

19 And so I have a file on New York state talc. I
20 have one on Kalen and so forth. 15:58

21 And for New York state talc, I have a file
22 by year. And if someone has asked me a question
23 about the talc and I respond in a letter
24 correspondence, I keep a copy of that
25 correspondence by year in that folder. 15:58

1 Q. Did you look in that folder when you -- in
2 preparation for your deposition today?

3 A. No, I did not.

4 Q. Is there any reason why you didn't?

5 A. I was asked a couple weeks ago if 15:59
6 something along the lines, and I notice in here as
7 I was reading through, if there had been any
8 correspondence with certain companies. It was
9 like prior to 1990, I think it said here.

10 There was one company that I recognize, 15:59
11 but the correspondence that I had with it was post
12 1990. And that's -- that's all -- that's as far
13 as I looked.

14 Q. Well, let's go to No. 32. That says,
15 "Correspondence between Vanderbilt and 16:00
16 CertainTeed."

17 Do you see any 1990 there?

18 A. I'm sorry, which one was that?

19 Q. No. 32, page --

20 A. 5?

21 Q. Page 11.

22 A. Okay. I have the wrong set of...
23 Correspondence between Vanderbilt and Certain --
24 CertainTeed Corporation, that's not a name I
25 recognize at all. 16:00

1 Q. And communications between Vanderbilt and
2 CertainTeed Corporation.

3 Do you see any -- any date modifier on
4 that?

5 A. No. But I also don't recognize the name 16:00
6 at all. And I --

7 Q. Let's go through these because you were
8 asked -- but you didn't look in the folder to see,
9 did you?

10 A. Well, I wouldn't -- that's a name I don't 16:00
11 recognize at all. I -- I --

12 Q. When was the last time you looked in that
13 folder?

14 A. Oh, if I file a -- a paper every now and
15 then, there are several folders, quite a few, and 16:01
16 they have the names of the companies on the top.
17 And they sort of stick out. And -- and
18 CertainTeed Corporation is not one that I recall
19 ever seeing.

20 Q. So how many folders are there? Is it a 16:01
21 file drawer?

22 A. It's -- it's a file drawer and it's by
23 year.

24 Q. So you did not specifically look for
25 correspondence, for example, with CertainTeed? 16:01

1 You're just assuming it's not there because it
2 doesn't ring a bell; correct?

3 A. Right. I would have been the one who
4 responded.

5 Q. So with respect to Category 12, 16:01
6 "Correspondence between Vanderbilt and United
7 States" -- "and United Gypsum Company," is it
8 correct that you did not look in your file for
9 that information?

10 A. That's correct. 16:02

11 Q. Do you know the name United States Gypsum
12 Company?

13 A. Did it used to be called U.S. Gyp?

14 Q. U.S. Gyp, yes.

15 A. U.S. Gyp? Yes. We did have interface 16:02
16 with them. I'm not sure what -- what year.

17 Q. Did you produce that to your attorneys to
18 produce here?

19 A. No, I didn't.

20 Q. And why not? 16:02

21 A. I really wasn't asked to. Those files,
22 the correspondence to companies, as I understood
23 it, were all copied and -- by Hawkins & Parnell as
24 well.

25 Q. Your files -- your correspondence with 16:03

1 customer files were copied by Hawkins & Parnell?

2 A. I believe they were, yes.

3 Q. Four or five years ago?

4 A. Yes.

5 Q. And so anything before -- anything in the 16:03
6 interim they wouldn't have; correct? Anything
7 from four or five years ago up to now?

8 A. That's -- that's correct. But I do know
9 that over the last certainly three or four years,
10 I have not had any correspondence with National 16:03
11 Gypsum.

12 Q. U.S. Gypsum?

13 A. U.S. Gypsum.

14 Q. So what do you believe in your -- is in
15 your file with respect to United States Gypsum 16:03
16 Company?

17 A. I would have to look.

18 Q. And as a meet and confer, I ask that you
19 do that and produce it to your attorneys.

20 Did you get your files back from Hawkins & 16:04
21 Parnell?

22 A. Yes. Yes. They're there.

23 Q. Now, what about Georgia-Pacific?

24 A. I don't believe I have correspondence with
25 Georgia-Pacific. But, again, I would have to look 16:04

1 to say for -- with certainty.

2 Q. This 1975 correspondence with
3 Georgia-Pacific that's attached as Exhibit 6 that
4 you produced here today from Pamela Harvey,
5 specialties department, you don't have a file with 16:05
6 that in your customer file?

7 A. No, I don't. And I probably should have
8 made it clear that my customer file began in 1985
9 when I started, actually a couple years
10 thereafter. 16:05

11 So it only goes back to then-- it's not --
12 it's just a historical record of what I did.

13 Q. So if there were historical records, where
14 would they be?

15 A. We have -- I really -- I really am not -- 16:05
16 not sure. I know that prior to my arriving at the
17 company, people kept records in different offices.
18 We tried to put all of the records together that
19 pertained to talc. In most cases, the records
20 were duplicative or, you know, repeats of the same 16:06
21 material.

22 At one point in the late '80s, I tried to
23 put together the -- what I viewed as the most
24 pertinent documents. And whatever else is there
25 or what I may not -- what I may not have viewed as 16:06

1 being pertinent or of any consequence, I -- I
2 really haven't paid attention to.

3 Q. Well, where are those non-pertinent
4 documents?

5 A. We have some files in Norwalk that were 16:07
6 some of these residual files from different
7 offices. And all of those files were part of what
8 was copied by Hawkins & Parnell as well.

9 Q. Where are they kept?

10 A. They're kept in -- in Norwalk. 16:07

11 Q. Who is the custodian of those records?

12 A. Oh, I have keys to those file cabinets.

13 Q. And what are the file cabinets labeled?

14 A. "See John Kelse for entry." I have my
15 name on them. 16:07

16 Q. So these are the historical files for
17 R.T. Vanderbilt, essentially, that you don't use
18 in your everyday work for the corporation, more or
19 less?

20 A. Well, that's true. They -- most -- they 16:08
21 predate me.

22 Q. And -- and it's fair to say that in
23 preparation for your deposition as the custodian
24 of records, you did not review any of those
25 documents; correct? 16:08

1 A. That would be correct.

2 MR. RADCLIFFE: Objection. Misstates
3 prior testimony.

4 BY MS. ABRAMS:

5 Q. Did I state that right? 16:08

6 A. That I did not review --

7 Q. Anything in those historical files in
8 Norwalk for this deposition.

9 A. That would be correct.

10 Q. And it is also fair to say that you do not 16:08
11 know one way or the other whether there are any
12 International Talc historical documents in that
13 collection; correct?

14 A. That would be correct.

15 Q. And you didn't look for those? 16:08

16 A. No. They wouldn't be pertinent to me.

17 Q. Did you -- in your files, do you -- strike
18 that.

19 Do you know if Pamela Harvey still works
20 for the R.T. Vanderbilt Company? 16:09

21 A. Not to my knowledge.

22 MR. RADCLIFFE: I think it's Morvay,
23 M-o-r-v-a-y.

24 MS. ABRAMS: That's why it says "Morvay"
25 in there. Okay. 16:09

1 THE WITNESS: Yes.

2 BY MS. ABRAMS:

3 Q. Do you know where the historical documents
4 from the specialties department went to after that
5 department no longer existed? 16:10

6 A. No, I don't.

7 Q. Did you -- it's fair to say you did not
8 look in your files or in any historical files in
9 Norwalk for any documents with respect to asbestos
10 in talc supply to Georgia-Pacific or 16:10
11 correspondence with Georgia-Pacific or
12 communications with Vanderbilt and
13 Georgia-Pacific; correct?

14 A. That's correct.

15 Q. And other than this 1975 document, you 16:10
16 have no -- you didn't search for any other
17 information with respect to warnings provided to
18 Georgia-Pacific by Vanderbilt; correct?

19 A. That's correct.

20 Q. Now, do you have any documents in your 16:10
21 file of any kind that suggest that there was any
22 warning or communication between R.T. Vanderbilt
23 at any time and the United States Gypsum Company
24 with respect to the hazards of asbestos in
25 Mouldene talc? 16:11

1 MR. RADCLIFFE: Object to the form.

2 Misstates prior testimony -- ignores prior
3 testimony.

4 THE WITNESS: All I have on Mouldene talc
5 I have in this folder. 16:11

6 MS. ABRAMS: Could you repeat the
7 question, please?

8 BY MS. ABRAMS:

9 Q. I want you to answer the question.

10 (Record read.) 16:11

11 MR. RADCLIFFE: Same objections.

12 THE WITNESS: I would have to answer that
13 I don't know for certain. I would have to look.

14 BY MS. ABRAMS:

15 Q. You didn't look? 16:11

16 A. I didn't look.

17 Q. And you didn't look in your file; correct?

18 A. That's right.

19 Q. And you didn't look in the historical
20 files; correct? 16:11

21 A. That's correct.

22 Q. How about National Gypsum, do you know
23 whether there were communications with National
24 Gypsum?

25 A. Yes. 16:12

1 MR. RADCLIFFE: Same objections.

2 BY MS. ABRAMS:

3 Q. You may answer.

4 A. Yes. There were communications.

5 Q. What types of communications? 16:12

6 A. They were the -- the standard type of
7 communication. They were asking for confirmation
8 that there is no asbestos in -- in the talc being
9 supplied to them. And I provided them that
10 confirmation. 16:12

11 Q. Did you -- did you furnish that document
12 to your attorneys to supply here today?

13 A. No, I didn't. I don't know whether it was
14 supplied or not. I know it was copied.

15 Q. And that was by Hawkins & Parnell? 16:12

16 A. Right.

17 Q. Do you know when it was copied?

18 A. During their -- they were in a copying
19 frenzy four or five years ago.

20 Q. But you still have that document in your 16:12
21 file?

22 A. Yes. I believe it would be there.

23 Q. And what exactly was that document?

24 A. Well, I'd have to go back and look. As I
25 said, they're almost always, Do you have asbestos 16:13

1 in your talc, or... it's usually that type of
2 question.

3 Q. Do you know what National Gypsum, what
4 type of talc they were purchasing?

5 A. Not off the top of my head. They may have 16:13
6 asked. You know, sometimes they'll say, Will you
7 purchase Nytal, whatever the grade is, could you
8 give me confirmation that there is no asbestos in
9 this material?

10 Q. And it's correct that you tell your 16:13
11 customer there's no asbestos in the material;
12 correct?

13 A. Yes.

14 Q. How about with respect to Kaiser Gypsum,
15 do you have communications in your files with 16:13
16 respect to Kaiser Gypsum?

17 MR. DAVIS: Davis. Objection.
18 Foundation. Speculation.

19 MS. ABRAMS: That was loud.

20 THE WITNESS: It was.

21 I would have to say I -- I don't know.
22 I'd have to go look. I don't believe so, but I
23 would have to check.

24 BY MS. ABRAMS:

25 Q. So you haven't checked about Kaiser 16:14

1 Gypsum; correct?

2 A. That's correct.

3 Q. And you haven't checked the historical
4 files either; correct?

5 A. That's correct. 16:14

6 Q. So it's fair to say that with respect to
7 any correspondence or communication or potential
8 warnings supplied to Kaiser Gypsum, you just don't
9 know whether those exist or not; correct?

10 A. I wouldn't know any more than this one 16:14
11 episode with these five products. That's the only
12 one I'm aware of that we ever labeled, used an
13 asbestos label for. Other than that, I am not
14 aware of any other time, any other grade of talc
15 that had that label on it. 16:14

16 Q. And when you're talking about --

17 MR. DAVIS: Sorry. Davis. Move to strike
18 nonresponsive portions. Belated objection.
19 Foundation. Speculation.

20 BY MS. ABRAMS: 16:15

21 Q. And when you're talking about -- strike
22 that.

23 What you're referring to when you picked
24 up your file was a letter to Georgia-Pacific;
25 correct? That's all you have? 16:15

1 A. On Mouldene, yes.

2 Q. You don't have any correspondence with you
3 or know of any with respect to Kaiser Gypsum;
4 correct?

5 A. No. Only what I have for Mouldene. 16:15

6 MR. DAVIS: Move to strike nonresponsive
7 portions. Belated objection. Foundation.
8 Speculation.

9 That's a double-negative answer, it sounds
10 like to me. 16:15

11 THE WITNESS: That's Georgia-Pacific.

12 MS. ABRAMS: Will you please repeat the
13 question and move to strike the last answer.

14 (Record read.)

15 THE WITNESS: That's correct. 16:15

16 BY MS. ABRAMS:

17 Q. And I think you -- you already mentioned,
18 with respect to any correspondence, communication,
19 warnings or information in relation to CertainTeed
20 with respect to asbestos in Vanderbilt talc, you 16:16
21 have -- you don't recall anything about
22 CertainTeed one way or the other?

23 A. CertainTeed? I'm sorry I don't
24 understand.

25 Q. CertainTeed Corporation. 16:16

1 A. No. The name --

2 MR. RADCLIFFE: Objection. Misstates
3 prior testimony.

4 THE WITNESS: -- that's not familiar to me
5 at all. 16:16

6 BY MS. ABRAMS:

7 Q. And you didn't look in your records, but
8 you actually don't think that's there at all;
9 correct?

10 A. That would be correct. 16:16

11 Q. What about DAP, do you know anything -- do
12 you have any recollection of any correspondence,
13 communication, warnings or other discussions
14 regarding asbestos in talc between R.T. Vanderbilt
15 and DAP? 16:16

16 MR. WAY: Objection. Lacks foundation.
17 Calls for speculation.

18 MS. ABRAMS: That's DAP, Inc., D-A-P.

19 THE WITNESS: Yes. There has been that
20 correspondence. 16:16

21 BY MS. ABRAMS:

22 Q. Can you tell us about that from your
23 memory?

24 A. Same as all the other questions: Do you
25 have asbestos in your talc? That's essentially 16:17

1 it.

2 Q. And you have documents in your files in
3 your office with respect to DAP?

4 A. Yes, I do.

5 Q. But you didn't produce those here today in 16:17
6 response to the deposition; correct?

7 A. Yes. They were all DAP correspondence, I
8 believe. I don't know if you had a timeline on
9 that, but I believe they're all post 1990. I
10 don't know if that applies or not. 16:17

11 Q. So you were -- Vanderbilt was supplying
12 talc to DAP after 1990; correct?

13 A. I have correspondence post 1990. I
14 don't -- I don't know what the history of sales
15 are with that. 16:17

16 Q. Well, at the time that you received the
17 correspondence, was DAP a customer of Vanderbilt,
18 to your knowledge?

19 A. I believe they were.

20 Q. Okay. And they were asking you in the 16:17
21 1990s or some time after 1990 regarding
22 information on whether there was asbestos in the
23 talc that they were purchasing; correct?

24 A. That's correct.

25 Q. And Vanderbilt told them no; correct? 16:18

1 A. That's correct.

2 Q. And so obviously they weren't warning them
3 about any dangers of asbestos in the talc that
4 they were supplying to DAP after 1990; correct?

5 MR. RADCLIFFE: Objection. Assumes facts 16:18
6 not in evidence.

7 THE WITNESS: I don't know how to answer
8 that. There's no asbestos in the talc, so why
9 would they warn -- no, the answer is.

10 BY MS. ABRAMS: 16:18

11 Q. The answer is no; correct?

12 A. What was the question again? Make sure
13 that --

14 MS. ABRAMS: Read the question back,
15 please. 16:18

16 (Record read.)

17 MR. RADCLIFFE: Same objections.

18 BY MS. ABRAMS:

19 Q. That's right?

20 A. Yes. That's correct. 16:18

21 Q. And what about Dowman, do you recognize
22 that name?

23 A. I do not.

24 Q. Did you look in your files to see if there
25 was a Dowman file? 16:19

1 A. I did not, no.

2 Q. Did you look in the historical files to
3 see if there was a Dowman file?

4 A. No, I did not.

5 Q. Is it your belief that the information in 16:19
6 your files regarding DAP was something that was
7 copied by the Hawkins & Parnell firm?

8 A. It is my belief, yes.

9 Q. So it wasn't something that you got in the
10 last four or five years? 16:19

11 A. No.

12 Q. You joined the R.T. Vanderbilt firm in
13 1985; correct?

14 A. Correct.

15 Q. You -- from your work at the Hartford, you 16:19
16 were aware that asbestos was a dangerous product;
17 correct?

18 A. A dangerous material, yes.

19 Q. And when you got to R.T. Vanderbilt, is it
20 correct that the Vanderbilt -- R.T. Vanderbilt 16:20
21 Company was also aware that asbestos was
22 hazardous?

23 A. I really can't speak for anybody at
24 Vanderbilt. I don't know what they were aware of
25 or not aware of. 16:20

1 Q. Well, they were warning about asbestos in
2 1975; correct?

3 A. Yes.

4 Q. Do you know when they first became aware
5 of the hazards of asbestos? 16:20

6 A. Again, I don't know. I can only speak for
7 myself. I don't know who knew what, you know, at
8 Vanderbilt. I have indications from papers that
9 are in my file that there was an awareness of the
10 need to label if you had asbestos in your product. 16:20
11 That would be the extent of my understanding of
12 what people understood or didn't understand in
13 those days.

14 Q. Are there corporate employees that have
15 been at the R.T. Vanderbilt Company longer than 16:21
16 you have, Mr. Kelse?

17 A. The corporate employees who have been
18 there longer than I have?

19 Q. Yes.

20 A. Certainly. 16:21

21 Q. Do any of them work in your department?

22 A. No -- oh, I'm sorry. I have to correct
23 that. My secretary. She's been there two years
24 longer than -- than I have.

25 Q. Who would be the person that is most 16:21

1 knowledgeable about when and how the R.T.

2 Vanderbilt Company first became aware of the

3 hazards of asbestos? Who would that be?

4 MR. RADCLIFFE: Objection. Calls for

5 speculation. Beyond the scope.

16:22

6 THE WITNESS: Yeah. I would have no idea.

7 BY MS. ABRAMS:

8 Q. Would you agree that you are not that

9 person?

10 A. Again, I would have no idea. My

16:22

11 understanding of what asbestos is, the risks of

12 asbestos I brought with me when I joined

13 R.T. Vanderbilt in 1985. Whatever the

14 understanding was among other employees of the

15 company prior to my arrival, I really don't know.

16:22

16 Q. As the R.T. Vanderbilt designated

17 corporate designee on this issue, when Vanderbilt

18 and how Vanderbilt first became aware of the

19 hazards of asbestos, what investigation did you

20 undertake to determine that information?

16:22

21 A. My primary interest was to determine

22 whether we had any asbestos in any of our products

23 in the first place.

24 And it -- it became clear to me, based on

25 the -- on the science base that I saw that it did

16:23

1 not contain asbestos, so that was the end of that
2 concern.

3 MS. ABRAMS: Well, move to strike that as
4 nonresponsive.

5 BY MS. ABRAMS:

16:23

6 Q. Perhaps you didn't understand the
7 question.

8 A. Okay.

9 Q. You have been designated by
10 R.T. Vanderbilt as the person most knowledgeable
11 as to how the Vanderbilt Company and when the
12 Vanderbilt Company first became aware of the
13 hazards of asbestos, not of any hazards in your
14 own particular product but the hazards of
15 asbestos.

16:23

16:23

16 A. Oh, as -- as a risk in general? Then I
17 would have to say I don't know.

18 Q. And my question is, since you've been
19 designated as the person most qualified to answer
20 this question, what did you do pursuant to your
21 obligations as the person most qualified to
22 undertake an investigation on this issue of how
23 Vanderbilt first became aware of the hazards of
24 asbestos?

16:23

25 A. Again, I'm confused by the question. I'm 16:24

1 not -- there is no asbestos in the talc product.
2 I have a record of some confusion over five grades
3 in -- between 1974.

4 I see an awareness of the possibility
5 of -- of trying to figure out what's being 16:24
6 regulated as asbestos in 1972. And there are
7 documents and records along that line. And that's
8 all that I have seen in the files that date back,
9 you know, prior to my being there.

10 So I have no idea what knowledge existed 16:25
11 in the company in regard to the risks of asbestos
12 in general.

13 Q. And it's fair to say that you -- for
14 preparation for this deposition, you did not
15 undertake an investigation to find out that 16:25
16 information?

17 MR. RADCLIFFE: Objection. Argumentative.
18 Misstates prior testimony.

19 BY MS. ABRAMS:

20 Q. Is that correct? You can have her read it 16:25
21 back, the court reporter read it back.

22 A. I didn't do it. I wouldn't know where to
23 begin with that.

24 Q. And you didn't seek any assistance in
25 answering that question about where to begin? 16:25

1 A. Well, what would be the point? I mean, if
2 you don't have asbestos in your material, why
3 would I launch an investigation on when someone
4 first read about the asbestos. It just doesn't --
5 it's not pertinent. 16:25

6 Q. So is it fair that -- to say that because
7 you believed it isn't pertinent, you just didn't
8 do it?

9 MR. RADCLIFFE: Objection. Argumentative.

10 THE WITNESS: If we had asbestos in our 16:26
11 product, it would be -- you know, you definitely
12 would want to reflect that. When we believed we
13 did have asbestos in some grades, we were willing
14 and -- and quite prepared to label it as such.

15 But we're not going to discuss asbestos 16:26
16 or -- or label materials as asbestos-containing
17 when asbestos isn't an issue in those materials.

18 MS. ABRAMS: Move to strike as
19 nonresponsive.

20 BY MS. ABRAMS: 16:26

21 Q. I just want to be clear for the record
22 that as the custodian of records and the person
23 most knowledgeable about how Vanderbilt first
24 became aware of asbestos, you did not undertake
25 any investigation to find that out; correct? 16:26

1 MR. RADCLIFFE: Objection. Argumentative.
2 Misstates prior testimony.

3 MS. ABRAMS: In preparation for this
4 deposition.

5 MR. RADCLIFFE: Objection. Argumentative. 16:27
6 Misstates prior testimony.

7 THE WITNESS: That's correct. Maybe you
8 can help me understand what this record business
9 is from a legal standpoint is all about. My job
10 is occupational health. Records that I keep are 16:27
11 pertinent to occupational health. It's not
12 pertinent to legal cases necessarily.

13 You know, I'm not there as a clerk to
14 file, you know, historical documents and every day
15 go check them. I'm there to understand what the 16:27
16 risks are.

17 And so the documents that are pertinent to
18 that understanding, I keep. That's -- that's what
19 I do.

20 So whatever your definition is, I mean, I 16:27
21 can't help that. I'm just telling you what I do.

22 MS. ABRAMS: Move to strike as
23 nonresponsive.

24 BY MS. ABRAMS:

25 Q. I'm just trying to be clear because I just 16:27

1 want to have a clear record --

2 A. Sure.

3 Q. -- that the category that we asked
4 R.T. Vanderbilt to find out when they first became
5 aware of the hazards of asbestos, they've 16:27
6 designated you as the person most knowledgeable on
7 that issue.

8 And I just want to confirm that you may
9 not be the person most knowledgeable on that issue
10 and you didn't do anything to investigate to find 16:28
11 the answer to that; is that right?

12 MR. RADCLIFFE: Objection. Same
13 objections as before.

14 THE WITNESS: Yes. The answer would be
15 no, I did not. 16:28

16 BY MS. ABRAMS:

17 Q. You have also been designated to provide
18 information about what the corporation,
19 Vanderbilt, did in terms of telling its customers
20 how to handle its talc. 16:28

21 Did you do anything to investigate that
22 issue?

23 THE WITNESS: Could you read that back to
24 me, please.

25 (Record read.) 16:29

1 MS. ABRAMS: And that's Category 47.

2 THE WITNESS: It's the responsibility of
3 my department to determine, you know, cautionary
4 warning, risk information that's put on product
5 labels and MSDS. In fact, we create the MSDSes. 16:29
6 So I wouldn't -- no, I didn't -- I didn't do a
7 search because it's my department's
8 responsibility.

9 BY MS. ABRAMS:

10 Q. And I just want to read to you the 16:29
11 definition of "handling of talc" because I want to
12 be clear what we're talking about.

13 A. Sure.

14 Q. It refers to how to "process, use and/or
15 handle talc and talc products to minimize dust and 16:29
16 exposure to dust."

17 So is that something that you're the most
18 knowledgeable person about?

19 A. Again, I would have to take tests to find
20 out more somebody else, but as an industrial 16:30
21 hygienist, part of my job is to understand what
22 the exposure levels of various substances are,
23 including dust in the mines, and then to also be
24 able to comment intelligently about how to
25 minimize that exposure through a variety of 16:30

1 controls. And that's the typical industrial
2 hygiene type of work.

3 So, to that extent, to the extent that I
4 am the corporate industrial hygienist, to that
5 extent, I -- I would think that I would be more 16:30
6 knowledgeable about that type of an exercise than
7 anyone else in the company.

8 Q. Are you -- are the corporate industrial
9 hygiene files kept with you?

10 A. Yes. 16:30

11 Q. So you have all the records of all the --
12 that studies at all the plants over the years for
13 -- for R.T. Vanderbilt; correct?

14 A. Which type of records?

15 Q. Your corporate records, your inhouse 16:31
16 studies of -- dust studies at the plant.

17 A. Risk-related.

18 Q. Well, any dust studies that are done at
19 the plant.

20 A. Oh, dust studies, yes. 16:31

21 Q. And is it also correct that if outside
22 people do dust studies at the plant and there are
23 documents with respect to those, those are housed
24 in your department?

25 A. Yes. 16:31

1 Q. Do you have any information in your files
2 regarding any dust studies that were done at the
3 International Talc facility?

4 MR. RADCLIFFE: Objection. Beyond the
5 scope. 16:31

6 THE WITNESS: I'm going to say no.

7 BY MS. ABRAMS:

8 Q. Do you know if they exist?

9 MR. RADCLIFFE: Same objection.

10 THE WITNESS: The reason I hesitated is 16:32
11 because you're saying health department, and this
12 is in -- this is in published papers. Took air
13 samples at various area mines. Whether or not
14 they took them at International Talc, I don't know
15 for certain. 16:32

16 BY MS. ABRAMS:

17 Q. Do you know -- do you have reports in your
18 files of those air samples?

19 MR. RADCLIFFE: Objection. Beyond the
20 scope. 16:32

21 THE WITNESS: No, I don't. I don't.

22 BY MS. ABRAMS:

23 Q. Is there a particular paper you're
24 referring to? You said "in published papers."

25 A. The one I'm thinking of is a study by -- 16:32

1 it was actually written by Kleinfeld.

2 Q. Do you know if there are any historical
3 International Talc files in Norwalk that might
4 have underlying data from the Kleinfeld studies?

5 MR. RADCLIFFE: Objection. Beyond the 16:33
6 scope.

7 THE WITNESS: There wouldn't be any
8 underlying data from Kleinfeld studies. There was
9 no link there.

10 BY MS. ABRAMS: 16:33

11 Q. Do you have any of the New York State
12 Health Department data?

13 A. No, I don't.

14 Q. Do you know where that might be found?

15 MR. RADCLIFFE: Objection. Beyond the 16:33
16 scope.

17 THE WITNESS: No, I don't.

18 BY MS. ABRAMS:

19 Q. Have you seen reference in various
20 documents that the dust levels at International 16:34
21 Talc mines were higher than at the Vanderbilt
22 mines?

23 A. The document that I --

24 MR. RADCLIFFE: Beyond the scope.

25 THE WITNESS: The document that I 16:34

1 mentioned, Kleinfeld, talks about dust levels at
2 other area mines. I don't know if it's specific
3 to International.

4 BY MS. ABRAMS:

5 Q. Other than what's in Kleinfeld, is there 16:34
6 any independent information in the files of
7 R.T. Vanderbilt that you know of that would
8 corroborate that statement?

9 A. I'm not --

10 MR. RADCLIFFE: Assumes facts not in 16:34
11 evidence. Argumentative.

12 THE WITNESS: I'm not aware of any.

13 BY MS. ABRAMS:

14 Q. And it's fair to say you haven't looked in
15 the Norwalk files to see if anything exists there; 16:34
16 correct?

17 A. That's correct.

18 Q. Now, what -- when did R.T. Vanderbilt --
19 strike that.

20 Has R.T. Vanderbilt ever informed 16:35
21 customers that they should take precautions when
22 handling Vanderbilt talc products?

23 MR. RADCLIFFE: Objection. Misstates
24 prior testimony. Argumentative.

25 THE WITNESS: Would you just read that 16:35

1 back to me.

2 (Record read.)

3 THE WITNESS: My records indicate that the
4 material safety data sheets that date back into
5 the mid '70s contained a general dust warning, 16:35
6 minimize dust, that sort of thing.

7 BY MS. ABRAMS:

8 Q. What kind of precautions did Vanderbilt
9 take in its own mine and mill to minimize dust?

10 A. That one -- we're very proud of that. 16:36
11 The -- the mill and the mine opened in 1948. And
12 it was actually considered one of the best
13 examples of dust control, well dust-controlled
14 operation. And by that I mean the mining that we
15 did, the underground mining was done only with wet 16:36
16 drilling.

17 Prior to that, other area mines either all
18 or mostly used dry drilling which was a huge
19 difference in dust generation in -- in the mines
20 and just gigantic reduction in dust just with that 16:37
21 one technology improvement.

22 In the mill --

23 Q. Excuse me, do you know whether
24 International Talc used wet or dry drilling?

25 MR. RADCLIFFE: Objection. Beyond the 16:37

1 scope.

2 THE WITNESS: I've been told they
3 predominantly used dry drilling.

4 BY MS. ABRAMS:

5 Q. Was that in the underground mine? 16:37

6 A. I don't know.

7 Q. Who told you that?

8 MR. RADCLIFFE: Objection. Beyond the
9 scope.

10 THE WITNESS: Dana Putman. 16:37

11 BY MS. ABRAMS:

12 Q. Okay. Continue, please.

13 A. The mill was constructed purposely very
14 carefully to minimize dust generation. Certainly
15 in the late '40s it had certainly been considered 16:37
16 state of the art.

17 And examples of that would be, they have
18 what they call elevator conveyance systems which
19 are, if you can imagine them, ducts in which the
20 ore is transferred, and these ducts are closed and 16:38
21 there is a positive pressure, air pressure kept in
22 the mill so that the -- the air would actually
23 move into the material conveyance systems rather
24 than dust, you know, flowing out of the conveyance
25 systems because of the pressure differentials. 16:38

1 They also used local exhaust systems to
2 a -- a much greater extent I understand than other
3 area mines, particularly at the packing stations,
4 things of that nature.

5 So this combination of -- of controls, 16:38
6 they also even began in the '50s with isolation
7 and control booths, which over a period of time
8 they expanded, which kept operators, you know, in
9 a closed booth out of the general mill area. And
10 those types of improvements occurred over, you 16:39
11 know, a span of time.

12 But initially, it was built with a
13 positive pressure system, the closed or conveyance
14 systems and some local ventilation systems that
15 were very, very effective. 16:39

16 Q. Apparently respirators were available at
17 the mine in the 1960s?

18 A. Yes. And they were available in the mine
19 prior to that.

20 Q. And they became obligatory at some point? 16:39

21 A. They certainly did. When I joined the
22 company, they were -- they were obligatory at that
23 time which is 1985. I'm not sure how much earlier
24 that became the rule. Obviously at some point
25 earlier. Exactly when that was, I don't know. 16:39

1 Q. And at that time, were they canister
2 respirators?

3 A. In 1985, they were -- there were a few
4 canister respirators left. Then a few years
5 later, around 1987, everyone used what's known as 16:40
6 Racal respirators, a positive pressure respirator.
7 It consists of a hardhat with an air mover in the
8 back, a filter at the top of the helmet, and then
9 a plastic face shield.

10 What this does is the motor pulls the air 16:40
11 in the back of the helmet, pushes it through the
12 filter to filter out particulate, and blows the
13 clean air across the workers' face and out.

14 This is run by a battery, a nickel-cadmium
15 battery, that's charged every day. And these were 16:40
16 provided to every single talc worker.

17 Q. Despite all of those precautions, isn't it
18 correct that workers at the R.T. Vanderbilt
19 Company contracted respiratory illnesses including
20 talcosis, lung cancer and mesothelioma? 16:40

21 MR. RADCLIFFE: Objection. Argumentative.
22 Assumes facts not in evidence.

23 BY MS. ABRAMS:

24 Q. Is that correct?

25 A. Again, I have difficulty -- all right. 16:41

1 I'll answer that as best I can.

2 Q. That's a "yes" or "no" question.

3 A. Well, it -- it assumes that people
4 contracted lung cancer, mesothelioma as a result
5 of exposure to the talc. And that's not what my 16:41
6 science base tells me.

7 Are there people who worked there who
8 had died of lung cancer or died of mesothelioma or
9 at least alleged to have died of mesothelioma?

10 Yes. 16:41

11 Are there individuals that worked at that
12 talc mine who had talcosis? Yes.

13 I would say that the anomaly in the
14 respiratory disease, the talcosis, you would --
15 you would -- that would be something that would 16:42
16 occur with overexposure to talc or any -- you
17 know, or -- any mineral dust poses a risk of that
18 sort.

19 If we had workers who came from other
20 mines, other area mines, they would have had 16:42
21 extremely elevated exposures to talc, and later on
22 you find that they show some interstitial fibrosis
23 or some talcosis, it doesn't necessarily mean that
24 that talcosis was cause by exposure to Vanderbilt
25 talc. 16:42

1 It doesn't tell you one way or the other,
2 although my current data suggests, because as time
3 has gone on, we have now workers who only had
4 exposure to Vanderbilt talc and my medical
5 surveillance data, as indicated in one of these 16:42
6 files by Dr. Boehcleck, shows that we had very,
7 very, very little in the way of dust disease in
8 that group.

9 MS. ABRAMS: Move to strike as
10 nonresponsive. 16:43

11 Could you read the question back.

12 BY MS. ABRAMS:

13 Q. And ask you to answer the question as
14 stated.

15 (Record read.) 16:43

16 MR. RADCLIFFE: Same objections. Asked
17 and answered.

18 BY MS. ABRAMS:

19 Q. Is that true? That's a "yes" or "no"
20 question. 16:43

21 A. That they contracted those diseases?

22 MR. RADCLIFFE: It's not a "yes" or "no"
23 question if you don't think it is.

24 THE WITNESS: I really don't think it is.

25 BY MS. ABRAMS: 16:43

1 Q. You don't have an answer to that question?
2 You can't say yes or no?

3 MR. RADCLIFFE: It's been asked and
4 answered.

5 THE WITNESS: I would say yes to some of 16:43
6 the nonmalignant respiratory disease or talcosis.
7 I would say no to lung cancer and mesothelioma.

8 BY MS. ABRAMS:

9 Q. How many Workers' Compensation claims have
10 you particularly seen and know of, mesothelioma 16:44
11 claims made by Vanderbilt workers?

12 A. There were -- there are four workmen's
13 comp claims for mesothelioma -- well, four
14 individuals that worked for Vanderbilt at one
15 point or another. 16:44

16 Q. How do you know that?

17 A. Well, I have those records.

18 Q. You have all the comp claims?

19 MR. RADCLIFFE: Objection to the form.
20 Assumes facts not in evidence. 16:44

21 THE WITNESS: I have -- I try to maintain
22 a record of compensation claims, as you would
23 expect I would, that are linked to occupational
24 disease at any plant. So for our mines, I would
25 have records that claim or allege pulmonary risk, 16:44

1 which would include talcosis or a claim of lung
2 cancer linked to the talc, that type of comp
3 record I -- I would have.

4 BY MS. ABRAMS:

5 Q. Is there a -- 16:45

6 MR. RADCLIFFE: Excuse me. Sorry to
7 interrupt. But it's 4:45, and given our
8 discussions on scheduling and agreement to
9 continue at a later date, and also given the fact
10 that it's 7:45 East Coast time for Mr. Kelse -- 16:45

11 THE WITNESS: I didn't even change my
12 watch.

13 MR. RADCLIFFE: We're going to conclude at
14 5. So I wanted to give you...

15 MS. ABRAMS: I thought we were going to 16:45
16 midnight.

17 MR. RADCLIFFE: No.

18 MS. ABRAMS: Changed your mind, huh?

19 MR. RADCLIFFE: I said we couldn't go to
20 midnight. But I think -- 16:45

21 MS. ABRAMS: Do you want to read the
22 question back, so I can remember where I was.

23 (Record read.)

24 BY MS. ABRAMS:

25 Q. Do you have all the comp claims? Is there 16:45

1 a procedure within RT Vanderbilt Company where you
2 formally receive all Workers' Compensation claims
3 for any occupational injuries?

4 MR. RADCLIFFE: Objection. Assumes facts
5 not in evidence. 16:46

6 THE WITNESS: With the qualifier for
7 occupational injuries, I would say yes.

8 BY MS. ABRAMS:

9 Q. Well, what's the qualifier?

10 A. Because I don't receive all the 16:46
11 compensation records.

12 Q. Which ones do you receive?

13 A. Well, I've expressly asked to see all
14 compensation records that are linked to
15 occupational disease. 16:46

16 Q. Who have you asked?

17 A. I've instructed the plants to send those
18 records to me.

19 Q. So the plants actually receive the claims?

20 A. Yes. That's a typical procedure. 16:46

21 Q. How far back do your files go?

22 A. I did a review of the comp files for
23 pulmonary claims relative to Gouverneur talc. My
24 files go back to 1972.

25 Q. And it's your testimony that there were 16:47

1 only four Workers' Comp claims against the R.T.
2 Vanderbilt Company for allegations of mesothelioma
3 since 1972?

4 A. That's what my records show.

5 Q. And -- and you know there were more 16:47
6 mesotheliomas that were recorded; correct? There
7 were more than four.

8 MR. RADCLIFFE: Object to the form.
9 Assumes facts not in evidence. Argumentative.

10 BY MS. ABRAMS: 16:47

11 Q. They may or may not have been Workers'
12 Comp claims.

13 A. There were others that were not
14 mesothelioma -- not comp claims. Two were
15 reported in the mortality studies. 16:47

16 Q. So there were six workers -- six
17 R.T. Vanderbilt workers alleged mesothelioma from
18 working at the R.T. Vanderbilt mines; correct?

19 MR. RADCLIFFE: Object to the form.
20 Assumes facts not in evidence. Argumentative. 16:48

21 THE WITNESS: Yeah. There were six
22 mesothelioma cases -- or alleged mesothelioma
23 cases among people whoever worked at the mine.

24 BY MS. ABRAMS:

25 Q. And you have those -- information about 16:48

1 those six workers in your files?

2 A. Yes, I do.

3 Q. Do you know where they worked?

4 A. Yes, I do.

5 Q. Do you know how long they worked for 16:48

6 R.T. Vanderbilt?

7 A. Yes.

8 Q. Do you know their jobs?

9 A. Yes.

10 Q. Do you know whether any International Talc 16:48

11 workers also filed Workers' Compensation claims?

12 A. I do not.

13 MR. RADCLIFFE: Objection. Beyond the
14 scope.

15 BY MS. ABRAMS: 16:48

16 Q. Did you produce to the Hawkins & Parnell
17 law firm all the Workers' Compensation claim
18 information in your file?

19 A. All workmen compensation?

20 Q. With respect to occupational disease 16:49
21 alleged against Vanderbilt.

22 A. I provided a list of all -- all pulmonary
23 claims that dated back to 1972.

24 Q. How many talcosis claims are there?

25 A. I looked at them -- dating back to 1972, I 16:49

1 think there was a total of -- it was close to
2 58 -- 1972 to the present -- 58 pulmonary claims,
3 the vast majority of which used the term
4 "talcosis" or exposure to dust was the description
5 on the claim forms. 16:50

6 Q. Do any of them allege asbestosis?

7 A. There were three out of that -- that group
8 that -- where the term "asbestos" was placed on
9 the comp form.

10 Q. Asbestosis? You said "asbestos." I asked 16:50
11 you about asbestosis?

12 A. Asbestosis, yes.

13 Q. And what about pleural plaques? Do any of
14 them allege pleural plaque?

15 A. Pleural plaque is -- is referred to in -- 16:50
16 in a number of cases, but...

17 Q. Do you know how many?

18 A. No, I -- I don't.

19 Q. What about lung cancer, how many alleged
20 lung cancer? 16:51

21 A. From my review of the file indicated there
22 were two claims filed for lung cancer.

23 Q. And did those claims for lung cancer
24 allege lung cancer and asbestosis or lung cancer
25 and pleural plaque, if you recall? 16:51

1 A. One did allege asbestos exposure. The
2 other one, and I quickly looked at these, did not.

3 Q. Let me just clarify before you answer.

4 What I asked you was: Did the claims
5 allege asbestosis or pleural plaque? Not asbestos 16:51
6 exposure.

7 A. They're included -- they're included in
8 that description.

9 Q. Asbestosis and pleural plaques?

10 A. In one of the two lung cancer cases that 16:51
11 were filed.

12 Q. And these -- are all these claims in the
13 possession of the Hawkins & Parnell law firm, to
14 your knowledge?

15 A. They have the master list that I described 16:52
16 to you. I gave them that -- that summary. And
17 they have --

18 Q. Do they have the claims?

19 A. Well, I don't know what you mean by --

20 Q. Do you have the actual claim forms and 16:52
21 everything, all the supporting documentation?

22 A. As much as I could get my hands on, yes.

23 Q. And did you produce those to the Hawkins &
24 Parnell law firm?

25 A. On the claims for mesothelioma, I did. 16:52

1 Q. Now, you mentioned that you've given six
2 depositions or more; correct?

3 A. Yes.

4 Q. And in all six of those cases, were all of
5 those people or workers or their family members 16:53
6 alleging -- were those mesothelioma claims?
7 Cases -- third party cases?

8 A. Cases?

9 Q. Correct. Those were -- those were civil
10 cases; correct? 16:53

11 A. Yes.

12 Q. And were all those cases mesothelioma
13 cases?

14 A. I believe they were. If they weren't,
15 they were mostly -- just about all, but maybe one. 16:53

16 Q. Those are all workers who allege exposure
17 to Vanderbilt talc and are claiming that they got
18 mesothelioma as a result of that; correct?

19 A. Yes.

20 Q. And do you know how many other cases of 16:53
21 alleged mesotheliomas are currently pending or
22 have preceded this one with respect to exposure to
23 Vanderbilt talc for mesothelioma?

24 MR. RADCLIFFE: When you say "cases," are
25 you talking about a legal case or just an 16:53

1 instance?

2 MS. ABRAMS: Strike my question.

3 Let me ask a better question.

4 BY MS. ABRAMS:

5 Q. Do you know how many either pending or 16:54
6 resolved cases, legal cases, exist where there has
7 been an allegation of exposure to Vanderbilt talc
8 contributing to the development of mesothelioma?

9 MR. RADCLIFFE: Objection. Beyond the
10 scope. 16:54

11 THE WITNESS: I don't know how many there
12 are. But that's generally what the cases are.
13 Whatever they are.

14 BY MS. ABRAMS:

15 Q. Do you know of other than the six that 16:54
16 you've been involved in?

17 A. Oh, I -- I know there are -- there are
18 others. I don't know exactly the names of them, I
19 haven't memorized them or --

20 Q. Do you get --

21 A. -- been involved in them.

22 Q. Do you get information on cases filed
23 against the Vanderbilt -- R.T. Vanderbilt Company
24 alleging mesothelioma, civil cases routinely that
25 you keep in your files? 16:54

1 A. I don't keep those records. If they're
2 legal notices or claims, they go to someone else.

3 Q. Who do they go to?

4 A. You can ask Paul Vanderbilt that tomorrow.
5 He will give you a better answer. I believe it's 16:55
6 him, but you need to ask him.

7 Q. Do you get copied on those?

8 A. Generally, if -- if it's a claim of
9 something that looks like -- that they feel they
10 would like comment from me on, they -- they will. 16:55
11 But it's not something that's routine, that I'm
12 just automatically copied in.

13 Q. Do you know of other cases, either legal
14 cases or cases of individuals who have alleged
15 that they have mesothelioma from working with 16:55
16 Mouldene talc?

17 MR. RADCLIFFE: Object to the form. Vague
18 and ambiguous.

19 BY MS. ABRAMS:

20 Q. Other than this one. 16:56

21 A. I really can't -- can't speak to that. I
22 don't know what the case, you know, record is,
23 or...

24 Q. I'm asking you from your memory, do you
25 know of any? 16:56

1 A. Oh, from my memory?

2 Other than, you know, the cases that I've
3 been directly involved in, I really don't know
4 what the status is.

5 Q. Well, did any of those involve Mouldene 16:56
6 talc?

7 A. I don't know. I don't -- I don't recall
8 if any -- any of those that I've been involved in,
9 I don't believe any of them did.

10 Q. With respect to category -- if we're going 16:56
11 to quit at 5, I'm going to leave out for today a
12 few of these categories.

13 So let's just go down to correspondence
14 between Vanderbilt and Johns-Manville. Do you
15 have any correspondence between Vanderbilt and 16:57
16 Johns-Manville corporation?

17 A. There is some old correspondence, and I
18 would defer to Dr. Thompson. He was involved
19 in -- in an interchange with Johns-Manville. I
20 don't know exact date of that. But again, it 16:57
21 predates me.

22 Q. So would Slim Thompson be the person most
23 knowledgeable for that category of information?

24 MR. RADCLIFFE: Object. Calls for
25 speculation. 16:57

1 THE WITNESS: Well, I believe so.

2 BY MS. ABRAMS:

3 Q. He would be more knowledgeable than you on
4 that issue?

5 A. Yes, he would. 16:57

6 Q. And you don't maintain those files?

7 A. They may be in that general archival, you
8 know, group of files that we discussed earlier
9 that were not -- you know, would not be something
10 that would be of great interest to me. 16:58

11 Q. The ones in Norwalk?

12 A. Yeah.

13 Q. How about in your correspondence files
14 that you mentioned before, do you think there are
15 any Johns-Manville files? 16:58

16 A. Well, in the correspondence file, I think,
17 as I indicated, it only really goes back to the --
18 you know, the mid '80s on, that I kept. Those are
19 files to remind me of what I was involved in.

20 Q. So do you know whether you have Johns -- a 16:58
21 Johns-Manville file or not, do you recall?

22 A. I don't -- I don't have a file labeled
23 "Johns-Manville." I don't know that I have any
24 documents from Johns-Manville.

25 MS. ABRAMS: What time is it? 16:58

1 MR. RADCLIFFE: It's 4:58. Do you have
2 two minutes? I do have to clean up something so I
3 can potentially avoid a motion to compel.

4 MS. ABRAMS: You don't get to do that.
5 You don't get to ask him questions until I get to 16:58
6 finish my deposition. And I have more to do. But
7 we can go off the record and we can clean up the
8 next time we get together.

9 MR. RADCLIFFE: Well, if you're going to
10 file a motion to compel off of this record, I'm 16:59
11 going to ask questions. If you're not going to
12 file a motion to compel off this record, I'll
13 wait.

14 MS. ABRAMS: How many questions do you
15 have? 16:59

16 MR. RADCLIFFE: Depends on his answers.
17 But three, four.

18 MS. ABRAMS: I will allow you to question
19 the witness because I am going to ask for
20 information off this record. 16:59

21 EXAMINATION BY MR. RADCLIFFE:

22 Q. Mr. Kelse, you were asked questions
23 about -- earlier about when R.T. Vanderbilt first
24 became aware of the hazards of exposure to
25 asbestos; do you remember those questions? 16:59

1 A. I remember being asked that question.

2 Q. Do you know whether RT Vanderbilt was
3 aware of the hazards of exposure as of the time of
4 OSHA standard in 1972?

5 MS. ABRAMS: Lacks foundation. Calls for 16:59
6 speculation based on his testimony.

7 THE WITNESS: They were aware that such a
8 standard was produced and they wondered and they
9 had some questions as to whether or not it
10 pertained to Vanderbilt. There are documents that 17:00
11 suggest it was some confusion about that.

12 BY MR. RADCLIFFE:

13 Q. Based on all of your work at Vanderbilt
14 since 1985, have you been able to determine how
15 much before 1972, if at all, Vanderbilt became 17:00
16 aware of the hazards of exposure to asbestos?

17 A. I -- I cannot tell.

18 Q. Is that something that you've looked into
19 in the past?

20 A. I have. You know, I found papers that 17:00
21 are -- that -- or articles that maybe predate
22 1972.

23 But I have no idea when they were
24 obtained, by who. They could have been obtained
25 in 1974 or '75. I don't know. 17:00

1 Q. In a case -- in the case -- strike that.

2 In a situation where you've done
3 investigation and research in the past, do you
4 find it necessary to repeat that investigation and
5 research for -- in response to a deposition 17:01
6 notice?

7 MS. ABRAMS: Objection. Calls for a legal
8 conclusion. And it's vague and ambiguous. Lacks
9 foundation. Calls for speculation. And it's
10 unintelligible. 17:01

11 THE WITNESS: Well, I think, as I tried to
12 say before, my job is to understand the risks of
13 our products, and understanding the risks of our
14 products means understanding what the best
15 available data and best science tells us about 17:01
16 those products.

17 I am not particularly focused or tuned in
18 to 30, 40-year-old documents that reflect
19 confusion. It's just not something that is of
20 interest. It's a waste of time. 17:01

21 What I'm interested in is what do we know
22 now, what is the -- the strength and credibility
23 of the information that currently exists. That's
24 what I'm interested in.

25 MS. ABRAMS: Are you done? 17:02

1 MR. RADCLIFFE: I guess so. I'll leave it
2 at that.

3 MS. ABRAMS: I have a follow-up.

4 EXAMINATION BY MS. ABRAMS:

5 Q. You mentioned, with respect to the '72 17:02
6 standards and becoming aware of OSHA, they
7 wondered whether it pertained to R.T. Vanderbilt
8 and there are documents on this.

9 What documents are those and where are
10 they? 17:02

11 A. There are some -- a couple of -- one or
12 two internal memos that were written by employees
13 that had -- had gone to Washington for, I believe
14 it was, a synopsis of the new -- or the first
15 federal standard on asbestos which was promulgated 17:03
16 by OSHA in 1972.

17 And they returned to the company and
18 reported they didn't know whether or not this new
19 standard would apply to the talc that was mined in
20 upstate New York because the standards 17:03
21 specifically included the mineral tremolite.

22 And there was no question that the
23 industrial talc that was mined in upstate New York
24 contained a very high level, high percentage of
25 tremolite. In fact, it was the most prevalent 17:03

1 mineral in the product, more prevalent even than
2 talc, the talc itself.

3 Q. Well, who were those people?

4 A. I believe the -- it was a fellow by the
5 name of Bacen, B-a-c-e-n. I can't remember his 17:03
6 first name.

7 Q. Okay. And you said there -- he wrote some
8 internal memos. Where are those kept?

9 A. I do have copies of those. I know they
10 were copied by Hawkins & Parnell. Whether they 17:04
11 supplied them to you in this -- in your discovery
12 or not, I -- I don't know.

13 Q. Can you give me some more information on
14 what that document might look like so we could
15 look for it? 17:04

16 A. They were similar internal memos as the
17 one that we've discussed that -- that Dr. Thompson
18 wrote, you know, to Paul Vanderbilt explaining his
19 analysis.

20 Q. Was it something on letterhead, or was it 17:04
21 something that said "memo"?

22 A. Yeah, it would -- it said "memo."

23 Q. And you think those were written around
24 1972?

25 A. Yes. 17:04

1 MS. ABRAMS: And if that hasn't been
2 produced, I'd ask that you produce it forthwith.

3 BY MS. ABRAMS:

4 Q. And you also said you found some articles
5 that predate 1972 that could have been obtained 17:05
6 before or after that date. Where are those
7 articles?

8 A. They would be in -- in my file.

9 Q. That file that you gave to Hawkins &
10 Parnell? 17:05

11 A. Yeah. They -- they would have been
12 copied.

13 Q. I'd ask that you look and see what those
14 articles are and produce them if they haven't been
15 produced and give those to your attorney; okay? 17:05

16 A. Um-hum.

17 MS. ABRAMS: Are you ready to go off the
18 record?

19 MR. RADCLIFFE: I'm ready.

20 MS. ABRAMS: Okay. Let's go off the 17:05
21 record and we will continue the deposition after
22 meeting and conferring as to when that will take
23 place.

24 THE VIDEOGRAPHER: This adjourns the
25 deposition for the day of John Kelse. 17:05

1 The present time is 5:04 p.m.

2 The electronic record contains three
3 videotapes today, August 10th, 2009. The
4 originals are to be retained by Televideo
5 Production Services located at 3655 Grand Avenue, 17:06
6 Oakland, California 94610. The phone number is
7 (510) 893-0555. Copies are available to
8 interested parties unless otherwise stipulated.

9 We are now off the record.

10 (Off the video record.)

11 MS. ABRAMS: So we're back on the written
12 record in the Kelse deposition for the sole
13 purpose of marking additional exhibits to attach
14 to the deposition subject to Mr. Kelse reviewing
15 them to determine -- or make sure that these are 15:07
16 the records that he produced at his deposition
17 yesterday.

18 And he'll have an opportunity to look at
19 these and just make sure they're all complete.

20 So exhibit next in order, which I can't 15:08
21 remember what the number is, so he'll let us
22 know --

23 THE REPORTER: Exhibit 7.

24 MS. ABRAMS: Exhibit 7, is going to be the
25 entire Mouldene file, Exhibit 8 is going to be the 15:08

1 mineral reference file, and Exhibit 9 is going to
2 be the health reference file.

3 MR. RADCLIFFE: I have no objection to
4 attaching those exhibits subject to, as you say,
5 Mr. Kelse being able to review the documents and 15:08
6 confirm they are the documents that he brought
7 with him to the deposition.

8 MS. ABRAMS: Okay. And so we will leave
9 those with you, the court reporter. Thank you.

10

11 (Plaintiff's Exhibit Nos. 7-9 marked for
12 identification.)

13

14 (Whereupon, the deposition was adjourned
15 for the day at 5:06 p.m.)

16

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1 SIGNATURE OF DEPONENT

2

3 I, the undersigned, JOHN KELSE, do hereby
4 certify that I have read the foregoing deposition
5 and find it to be a true and accurate
6 transcription of my testimony, with the following
7 corrections, if any:

8

9	<u>PAGE</u>	<u>LINE</u>	<u>CHANGE</u>
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23

24

25

JOHN KELSE, Date

1

2 CERTIFICATE OF REPORTER

3

4

5 I, KATHERINE J. KIRBY, do hereby certify
6 that said proceedings were taken in shorthand by
7 me, a Certified Shorthand Reporter of the State of
8 California, and were thereafter transcribed by
9 computer-aided transcription, and that the
10 foregoing transcript constitutes a full, true and
11 correct report of said proceedings which took
12 place.

13 That I am a disinterested person in the
14 said action.

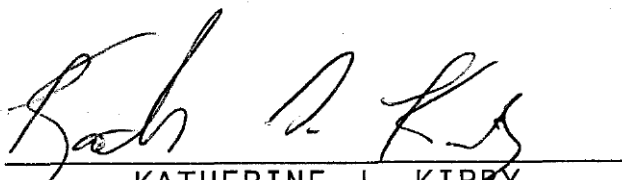
15 IN WITNESS WHEREOF, I have hereunder set my
16 hand this 24th day of August 2009.

17

18

19

20

21 
22 _____
23 KATHERINE J. KIRBY
24 CSR No. 6418
25

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4 Oakland, California 94607
Telephone: (510) 302-1000

5 Attorneys for Plaintiffs
6
7



8 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

9 IN AND FOR THE COUNTY OF ALAMEDA
10

11 ERIC WESTON,

12 Plaintiff,

13 vs.

14 ASBESTOS CORPORATION LIMITED, et
15 al.,

16 Defendants.
17

No. RG08426405

**NOTICE OF TAKING DEPOSITION OF
DEFENDANT R.T. VANDERBILT
COMPANY, INC.'S CUSTODIAN(S) OF
RECORDS AND PERSON(S) MOST
QUALIFIED**

[C.C.P. §§ 2025.220(a), 2025.230,
2025.270(a), 2025.280(a), 2020.510]

Custodian of Records or Other Qualified
Witness:

May 26, 2009

Person Most Qualified:

May 26, 2009

18
19
20
21
22 TO ALL PARTIES AND ALL ATTORNEYS OF RECORD IN THIS ACTION:

23 PLEASE TAKE NOTICE that on May 26, 2009, at 10:00 a.m., at the offices of

24 Kazan, McClain, Lyons, Greenwood & Harley, A Professional Law Corporation, 171

25 Twelfth Street, Third Floor, Oakland, CA 94607 plaintiffs in the above-captioned action

26 will take the deposition of R.T. Vanderbilt Company, Inc., ("Deponent") which is required

27 to designate one or more persons to testify on its behalf pertaining to documents as

28 defined and described in the Documents to be Produced section of this Notice. The

KAZAN, McCLAIN,
LYONS,
GREENWOOD &
HARLEY
A PROFESSIONAL
LAW CORPORATION
171 TWELFTH STREET
THIRD FLOOR
OAKLAND, CA 94607
(510) 302-1000
(510) 465-7728
FAX (510) 835-4913

Notice of Taking the Deposition of R.T. Vanderbilt Co., Inc.'s Custodian(s) of Records and Person(s) Most Qualified

1 witness or someone in authority for the deponent "is expected to make an inquiry of
2 everyone who might be holding responsive documents or everyone who knows where
3 such documents might be held." Maldonado v. Sup. Ct. (ICG Telecom Group, Inc.)
4 (2002) 94 Cal.App.4th 1390, 1396.

5 The deposition shall continue from day to day until completed, Saturdays,
6 Sundays, and holidays excepted. The deposition is to be recorded by video technology.

7 Pursuant to California Code of Civil Procedure, Deponent is required both to
8 testify and to produce for inspection and copying all of the documents defined and
9 described in this Notice within its possession, custody, or control, and/or the possession,
10 custody or control of its agents, representatives, or attorneys, no matter where said
11 documents are located.

12 **DOCUMENTS TO BE PRODUCED**

13 1. All DOCUMENTS with information regarding VANDERBILT's RECORD
14 RETENTION POLICY.

15 "VANDERBILT," "DEFENDANT," "YOU," and "YOUR" shall refer to defendant R.T.
16 Vanderbilt Company, Inc., and all of its current and former attorneys, agents, employees,
17 officers, parent entities, predecessors, subsidiaries, divisions, affiliates, successor, alter
18 egos, sister companies and contract units, including but not limited to International Talc
19 Company and Western Talc Company.

20 "RECORD RETENTION POLICY" shall refer to any policy pursuant to which
21 defendant's DOCUMENTS are maintained or destroyed, including the legal and financial
22 basis for deciding how long to retain DOCUMENTS, the period of time it is required that
23 DOCUMENTS be maintained, what categories of DOCUMENTS are subject to each
24 document retention policy, the history and development of each policy, the operation and
25 enforcement of each policy, and revisions of the policies.

26 "DOCUMENTS" shall mean all writings, as defined in California Evidence Code §
27 250, including without limitation: all originals and all duplicates of handwriting, typewriting,
28 printing, photostats, photographs, electronic data on any of YOUR computers, facsimile,

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1 e-mail, and every other means of recording upon any tangible thing or other form of
2 communication or representation.

3 2. All correspondence between VANDERBILT and International Talc
4 Company.

5 3. All DOCUMENTS with information regarding the presence of ASBESTOS
6 in Mouldene talc at any time.

7 "ASBESTOS" shall mean the mineral asbestos in any form, including without
8 limitation: riebeckite, crocidolite asbestos, cummingtonite-grunerite, amosite asbestos,
9 anthophyllite, actinolite, tremolite, soda tremolite, sodium rich tremolite, chrysotile,
10 winchite, richterite, fluoro-edenite, and all other potentially asbestiform amphiboles.

11 4. All DOCUMENTS with information regarding studies on the presence of
12 ASBESTOS in Mouldene talc.

13 5. All DOCUMENTS VANDERBILT received regarding studies on the
14 presence of ASBESTOS in Mouldene talc.

15 6. All DOCUMENTS with information regarding studies VANDERBILT
16 conducted on the presence of ASBESTOS in Mouldene talc.

17 7. All DOCUMENTS with information regarding studies VANDERBILT
18 commissioned on the presence of ASBESTOS in Mouldene talc.

19 8. All DOCUMENTS with information regarding WARNINGS VANDERBILT
20 provided to anyone regarding the presence of ASBESTOS in Mouldene talc.

21 "WARNING(S)" shall mean any method by which a cautionary message was
22 communicated, such as warnings regarding the HAZARDS OF ASBESTOS, including
23 but not limited to, posting signs, distributing literature, affixing labels, conducting
24 meetings, implementing procedures, word of mouth or any other such method.

25 "HAZARDS OF ASBESTOS" shall refer to any dangers associated with the
26 inhalation of or exposure to ASBESTOS and products that contain ASBESTOS, including
27 but not limited to TALC.

28 //

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FAX (510) 835-4913

1 "TALC" shall refer to any and all types of talc, including but not limited to raw talc,
2 processed talc, and talc-containing products, including but not limited to Mouldene.

3 9. All DOCUMENTS with information regarding VANDERBILT's supply of
4 Mouldene talc.

5 10. All DOCUMENTS with information regarding VANDERBILT's supply of
6 TALC to the United States Gypsum Company prior to 1990.

7 11. All DOCUMENTS with information regarding the presence of ASBESTOS
8 in TALC VANDERBILT supplied to the United States Gypsum Company prior to 1990.

9 12. All sales records between VANDERBILT and the United States Gypsum
10 Company.

11 13. All correspondence between VANDERBILT and the United Gypsum
12 Company.

13 14. All correspondence between VANDERBILT and the United Gypsum
14 Company regarding the presence of ASBESTOS in TALC supplied by VANDERBILT
15 prior to 1990.

16 15. All DOCUMENTS with information regarding WARNINGS VANDERBILT
17 provided to the United States Gypsum Company prior to 1990 regarding the presence of
18 ASBESTOS in TALC supplied by VANDERBILT.

19 16. All DOCUMENTS with information regarding VANDERBILT's supply of
20 TALC to the Georgia Pacific Corporation prior to 1990.

21 17. All DOCUMENTS with information regarding the presence of ASBESTOS
22 in TALC VANDERBILT supplied to the Georgia Pacific Corporation prior to 1990.

23 18. All sales records between VANDERBILT and the Georgia Pacific
24 Corporation.

25 19. All correspondence between VANDERBILT and the Georgia Pacific
26 Corporation.

27 //

28 //

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FAX (510) 835-4913

1 20. All correspondence between VANDERBILT and the Georgia Pacific
2 Corporation regarding the presence of ASBESTOS in TALC supplied by VANDERBILT
3 prior to 1990.

4 21. All DOCUMENTS with information regarding WARNINGS VANDERBILT
5 provided to the Georgia Pacific Corporation prior to 1990 regarding the presence of
6 ASBESTOS in TALC supplied by VANDERBILT.

7 22. All DOCUMENTS with information regarding VANDERBILT's supply of
8 TALC to National Gypsum prior to 1990.

9 23. All DOCUMENTS with information regarding the presence of ASBESTOS
10 in TALC VANDERBILT supplied to National Gypsum prior to 1990.

11 24. All sales records between VANDERBILT and National Gypsum.

12 25. All correspondence between VANDERBILT and National Gypsum.

13 26. All correspondence between VANDERBILT and National Gypsum
14 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.

15 27. All DOCUMENTS with information regarding WARNINGS VANDERBILT
16 provided to National Gypsum prior to 1990 regarding the presence of ASBESTOS in
17 TALC supplied by VANDERBILT.

18 28. All DOCUMENTS with information regarding VANDERBILT's supply of
19 TALC to Kaiser Gypsum Company, Inc. prior to 1990.

20 29. All DOCUMENTS with information regarding the presence of ASBESTOS
21 in TALC VANDERBILT supplied to Kaiser Gypsum Company, Inc. prior to 1990.

22 30. All sales records between VANDERBILT and Kaiser Gypsum Company,
23 Inc.

24 31. All correspondence between VANDERBILT and Kaiser Gypsum Company,
25 Inc.

26 32. All correspondence between VANDERBILT and Kaiser Gypsum Company,
27 Inc. regarding the presence of ASBESTOS in TALC supplied by VANDERBILT prior to
28 1990.

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1 33. All DOCUMENTS with information regarding WARNINGS VANDERBILT
2 provided to Kaiser Gypsum Company, Inc. prior to 1990 regarding the presence of
3 ASBESTOS in TALC supplied by VANDERBILT.

4 34. All DOCUMENTS with information regarding VANDERBILT's supply of
5 TALC to CertainTeed Corporation prior to 1990.

6 35. All DOCUMENTS with information regarding the presence of ASBESTOS
7 in TALC VANDERBILT supplied to CertainTeed Corporation prior to 1990.

8 36. All sales records between VANDERBILT and CertainTeed Corporation.

9 37. All correspondence between VANDERBILT and CertainTeed Corporation.

10 38. All correspondence between VANDERBILT and CertainTeed Corporation
11 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.

12 39. All DOCUMENTS with information regarding WARNINGS VANDERBILT
13 provided to CertainTeed Corporation prior to 1990 regarding the presence of
14 ASBESTOS in TALC supplied by VANDERBILT.

15 40. All DOCUMENTS with information regarding VANDERBILT's supply of
16 TALC to DAP, Inc. prior to 1990.

17 41. All DOCUMENTS with information regarding the presence of ASBESTOS
18 in TALC VANDERBILT supplied to DAP, Inc. prior to 1990.

19 42. All sales records between VANDERBILT and DAP, Inc.

20 43. All correspondence between VANDERBILT and DAP, Inc.

21 44. All correspondence between VANDERBILT and DAP, Inc. regarding the
22 presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.

23 45. All DOCUMENTS with information regarding WARNINGS VANDERBILT
24 provided to DAP, Inc. prior to 1990 regarding the presence of ASBESTOS in TALC
25 supplied by VANDERBILT.

26 46. All DOCUMENTS with information regarding VANDERBILT's supply of
27 TALC to Dowman Products prior to 1990.

28 //

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FAX (510) 835-4913

1 47. All DOCUMENTS with information regarding the presence of ASBESTOS
2 in TALC VANDERBILT supplied to Dowman Products prior to 1990.

3 48. All sales records between VANDERBILT and Dowman Products.

4 49. All correspondence between VANDERBILT and Dowman Products.

5 50. All correspondence between VANDERBILT and Dowman Products
6 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.

7 51. All DOCUMENTS with information regarding WARNINGS VANDERBILT
8 provided to Dowman Products prior to 1990 regarding the presence of ASBESTOS in
9 TALC supplied by VANDERBILT.

10 52. All DOCUMENTS with information regarding how VANDERBILT first
11 became aware of the HAZARDS OF ASBESTOS.

12 53. All DOCUMENTS with information regarding how VANDERBILT became
13 aware that TALC supplied by VANDERBILT contained ASBESTOS.

14 54. All DOCUMENTS regarding the HANDLING OF TALC that VANDERBILT
15 provided to anyone prior to 1990.

16 "HANDLING OF TALC" shall refer to how to process, use, and/or handle TALC
17 and TALC products to minimize dust and exposure to dust.

18 55. All DOCUMENTS regarding information VANDERBILT provided to anyone
19 regarding the HANDLING OF TALC.

20 56. All DOCUMENTS with information regarding insurance coverage presently
21 available to International Talc Company to cover judgments entered against it in
22 asbestos-related personal injury lawsuits include costs of defense.

23 57. All DOCUMENTS with information regarding worker's compensation claims
24 alleging asbestos disease that have been filed against International Talc Company.

25 58. All DOCUMENTS with information regarding worker's compensation claims
26 alleging asbestos disease that have been filed against VANDERBILT.

27 59. All issues of "The Vanderbilt News" from 1973 through 1989.

28 //

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1 60. All transcripts of sworn testimony given by former or present employees of
2 VANDERBILT in worker's compensation cases filed against VANDERBILT that allege
3 asbestos disease.

4 61. All transcripts of sworn testimony given by former or present employees of
5 VANDERBILT in third party personal injury cases filed against VANDERBILT that allege
6 asbestos disease.

7 62. All transcripts of testimony given by former or present employees of
8 VANDERBILT in front of any county, state, or federal government agency.

9 63. All depositions taken in any asbestos lawsuits regarding Mouldene talc.

10 64. All exhibits to each deposition taken in any asbestos lawsuit regarding
11 Mouldene talc.

12 65. All depositions taken in any asbestos lawsuits regarding plaster casting.

13 66. All exhibits to each deposition taken in any asbestos lawsuit regarding
14 plaster casting.

15 67. All depositions taken in any asbestos lawsuits regarding International Talc
16 Company.

17 68. All exhibits to depositions taken in any asbestos lawsuit regarding
18 International Talc Company.

19 69. All correspondence between VANDERBILT and the United States
20 Department of Labor which reference ASBESTOS in any way.

21 70. All correspondence between VANDERBILT and the United States
22 Department of Labor in 1983.

23 71. All correspondence VANDERBILT provided to its employees which
24 reference ASBESTOS in any way.

25 72. All correspondence VANDERBILT provided to its employees dated May 27,
26 1988.

27 73. All correspondence VANDERBILT sent to Georgia Pacific Corp. dated
28 January 2, 1975.

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1 74. All DOCUMENTS celebrating VANDERBILT's 50th Anniversary, including
2 those published in 1966.

3 75. All correspondence between VANDERBILT and Johns-Manville
4 Corporation which reference ASBESTOS in any way, including correspondence dated
5 1974.

6 76. All correspondence between VANDERBILT and Johns-Manville
7 Corporation which reference any testing performed by Johns-Manville Corporation on
8 any VANDERBILT products.

9 **PLEASE TAKE FURTHER NOTICE that on May 26, 2009, at 1:00 p.m., or**
10 immediately upon completion of the custodian of records deposition, at the offices of
11 Kazan, McClain, Lyons, Greenwood & Harley, A Professional Law Corporation, 171
12 Twelfth Street, Third Floor, Oakland, CA 94607 plaintiffs in the above-captioned action
13 will take further deposition of R.T. Vanderbilt Company, Inc. ("Deponent"). Deponent
14 shall "designate and produce" at the deposition those of its officers, directors, managing
15 agents, employees, or agents who are "most qualified" to testify on its behalf as to the
16 Matters On Which Examination Is Requested as set forth in this Notice. Code of Civil
17 Procedure § 2025.230. The person(s) so designated by defendant must testify "to the
18 extent of any information known or reasonably available to said defendant." Id.

19 Said deposition shall continue from day to day until completed, Saturdays,
20 Sundays, and holidays excepted. Said deposition is to be recorded by video technology.

21 **MATTERS ON WHICH EXAMINATION IS REQUESTED**

- 22 1. VANDERBILT's RECORD RETENTION POLICY.
23 2. The presence of ASBESTOS in Mouldene talc at any time.
24 4. Studies on the presence of ASBESTOS in Mouldene talc.
25 5. Information VANDERBILT received from any source regarding studies on
26 the presence of ASBESTOS in Mouldene talc.
27 6. Studies VANDERBILT conducted on the presence of ASBESTOS in
28 Mouldene talc.

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1 7. Studies VANDERBILT commissioned on the presence of ASBESTOS in
2 Mouldene talc.

3 8. WARNINGS VANDERBILT provided to anyone regarding the presence of
4 ASBESTOS in Mouldene talc.

5 9. VANDERBILT's supply of Mouldene talc.

6 10. VANDERBILT's supply of TALC to the United States Gypsum Company
7 prior to 1990.

8 11. The presence of ASBESTOS in TALC VANDERBILT supplied to the United
9 States Gypsum Company prior to 1990.

10 12. Correspondence between VANDERBILT and the United Gypsum
11 Company.

12 13. Communications between VANDERBILT and the United Gypsum Company
13 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.

14 14. WARNINGS VANDERBILT provided to the United States Gypsum
15 Company prior to 1990 regarding the presence of ASBESTOS in TALC supplied by
16 VANDERBILT.

17 15. VANDERBILT's supply of TALC to the Georgia Pacific Corporation prior to
18 1990.

19 16. The presence of ASBESTOS in TALC VANDERBILT supplied to the
20 Georgia Pacific Corporation prior to 1990.

21 17. Correspondence between VANDERBILT and the Georgia Pacific
22 Corporation.

23 18. Communications between VANDERBILT and the Georgia Pacific
24 Corporation regarding the presence of ASBESTOS in TALC supplied by VANDERBILT
25 prior to 1990.

26 19. WARNINGS VANDERBILT provided to the Georgia Pacific Corporation
27 prior to 1990 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT.

28 20. VANDERBILT's supply of TALC to National Gypsum prior to 1990.

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- 1 21. The presence of ASBESTOS in TALC VANDERBILT supplied to National
2 Gypsum prior to 1990.
- 3 22. Correspondence between VANDERBILT and National Gypsum.
- 4 23. Communications between VANDERBILT and National Gypsum regarding
5 the presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.
- 6 24. WARNINGS VANDERBILT provided to National Gypsum prior to 1990
7 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT.
- 8 25. VANDERBILT's supply of TALC to Kaiser Gypsum Company, Inc. prior to
9 1990.
- 10 26. The presence of ASBESTOS in TALC VANDERBILT supplied to Kaiser
11 Gypsum Company, Inc. prior to 1990.
- 12 27. Correspondence between VANDERBILT and Kaiser Gypsum Company,
13 Inc.
- 14 28. Communications between VANDERBILT and Kaiser Gypsum Company,
15 Inc. regarding the presence of ASBESTOS in TALC supplied by VANDERBILT prior to
16 1990.
- 17 29. WARNINGS VANDERBILT provided to Kaiser Gypsum Company, Inc. prior
18 to 1990 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT.
- 19 30. VANDERBILT's supply of TALC to CertainTeed Corporation prior to 1990.
- 20 31. The presence of ASBESTOS in TALC VANDERBILT supplied to
21 CertainTeed Corporation prior to 1990.
- 22 32. Correspondence between VANDERBILT and CertainTeed Corporation.
- 23 33. Communications between VANDERBILT and CertainTeed Corporation
24 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.
- 25 34. WARNINGS VANDERBILT provided to CertainTeed Corporation prior to
26 1990 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT.
- 27 35. VANDERBILT's supply of TALC to DAP, Inc. prior to 1990.
- 28 //

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1 36. The presence of ASBESTOS in TALC VANDERBILT supplied to DAP, Inc.
2 prior to 1990.

3 37. Correspondence between VANDERBILT and DAP, Inc.

4 38. Communications between VANDERBILT and DAP, Inc. regarding the
5 presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.

6 39. WARNINGS VANDERBILT provided to DAP, Inc. prior to 1990 regarding
7 the presence of ASBESTOS in TALC supplied by VANDERBILT.

8 40. VANDERBILT's supply of TALC to Dowman Products prior to 1990.

9 41. The presence of ASBESTOS in TALC VANDERBILT supplied to Dowman
10 Products prior to 1990.

11 42. Correspondence between VANDERBILT and Dowman Products.

12 43. Communications between VANDERBILT and Dowman Products regarding
13 the presence of ASBESTOS in TALC supplied by VANDERBILT prior to 1990.

14 44. WARNINGS VANDERBILT provided to Dowman Products prior to 1990
15 regarding the presence of ASBESTOS in TALC supplied by VANDERBILT.

16 45. How VANDERBILT first became aware of the HAZARDS OF ASBESTOS.

17 46. How VANDERBILT became aware that TALC supplied by VANDERBILT
18 contained ASBESTOS.

19 47. Information regarding the HANDLING OF TALC that VANDERBILT
20 provided to anyone prior to 1990.

21 48. Insurance coverage presently available to International Talc Company to
22 cover judgments entered against it in asbestos-related personal injury lawsuits include
23 costs of defense.

24 49. Worker's compensation claims alleging asbestos disease that have been
25 filed against International Talc Company.

26 50. Worker's compensation claims alleging asbestos disease that have been
27 filed against VANDERBILT.


28 //

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- 1 51. Correspondence between VANDERBILT and the United States Department
- 2 of Labor.
- 3 52. Information VANDERBILT provided to its employees about ASBESTOS.
- 4 53. Information VANDERBILT provided to its employees about the HAZARDS
- 5 OF ASBESTOS.
- 6 54. Correspondence between VANDERBILT and Georgia Pacific Corp.
- 7 55. Correspondence between VANDERBILT and Johns-Manville Corporation.
- 8 56. Information regarding testing performed by Johns-Manville Corporation on
- 9 any VANDERBILT products.

11 DATED: May 6, 2009

KAZAN, McCLAIN, LYONS, GREENWOOD &
HARLEY
A Professional Law Corporation

13
14 By 
William Ruiz

Attorneys for Plaintiffs

25 KAZAN, McCLAIN,
26 LYONS,
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28 (510) 302-1000
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1 PROOF OF SERVICE

2 Re: Eric Weston v. Asbestos Corporation Limited, et al
3 Alameda County Superior Court No. RG08426405

4 I am employed in the County of Alameda, State of California. I am over the age of 18
5 years and not a party to the within action. My business address is 171 Twelfth Street, Third Floor,
6 Oakland, California 94607. On May 6, 2009, I served the following document(s):

- 7 • **NOTICE OF TAKING THE DEPOSITION OF DEFENDANT R.T. VANDERBILT
8 COMPANY, INC.'S CUSTODIAN(S) OF RECORDS AND PERSON(S) MOST
9 QUALIFIED**

10 by transmitting a true copy to:

11 Selman & Breitman
12 11766 Wilshire Boulevard, 6th Floor
13 Los Angeles, CA 90025-6538
14 **Counsel for R.T. Vanderbilt Company, Inc.**

15 via the following method:

16 X (By Overnight Delivery) By delivering to an authorized courier authorized by the
17 express service to receive documents or depositing in a box or other facility
18 regularly maintained by the express carrier a true copy thereof, on this date, and in
19 an envelope or package designated by the express service carrier. UPS Next Day
20 Air, Tracking # 1Z 863 722 01 9364 8857

21 AND

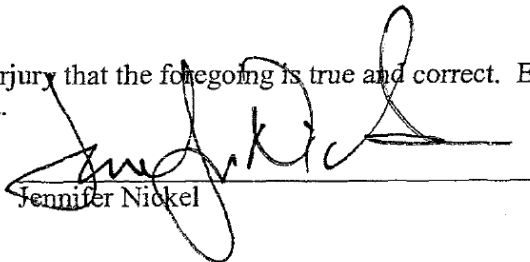
22 All Defense Counsel (See Attached Service List)

23 via the following method:

24 _____ (By Facsimile Machine [FAX]) By personally transmitting a true copy thereof via
25 an electronic facsimile machine between the hours of 9:00 a.m. and
26 5:00 p.m.

27 X (By Mail) I am readily familiar with this office's business practice for collection
28 and processing of correspondence for mailing with the United States Postal
Service. This document, which is in an envelope addressed as stated above, will
be sealed with postage fully prepaid and will be deposited with the United States
Postal Service this date in the ordinary course of business.

I declare under penalty of perjury that the foregoing is true and correct. Executed on
May 6, 2009, at Oakland, California.


Jennifer Nickel

KAZAN, McCLAIN,
ABRAMS, LYONS,
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ARCHER NORRIS
2033 N. Main Street, Suite 800, Walnut Creek, CA 94596
FOR: ST. LAWRENCE LIQUIDATING CORP, trustee for INTERNATIONAL TALC CO INC.
PH: (925) 930-6600
FAX: (925) 930-6620

BERRY & BERRY
P.O. Box 16070, Oakland, CA 94610
FOR: DESIGNATED DEFENSE COUNSEL
PH: (510) 835-8330
FAX: (510) 835-5117

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555 City Center, 555 12th Street, Suite 1280, Oakland, CA 94607
FOR: TRUITT & WHITE LUMBER COMPANY
PH: (510) 267-3000
FAX: (510) 267-0117

COUNSEL UNKNOWN
FOR: INDUSTRIAL & FOUNDRY SUPPLY COMPANY, INC. OF CALIFORNIA

FOLEY & MANSFIELD
1111 Broadway, 10th Floor, Oakland, CA 94607
FOR: CALAVERAS ASBESTOS, LTD; REGENTS OF THE UNIVERSITY OF CALIFORNIA; SPECIAL ELECTRIC COMPANY, INC.
PH: 510-590-9500
FAX: 510-590-9595

HASSARD BONNINGTON
2 Embarcadero Center, Suite 1800, San Francisco, CA 94111
FOR: KAISER GYPSUM COMPANY, INC.
PH: (415) 288-9800
FAX: (415) 288-9802

HERR & ZAPALA
152 North 3rd Street, Suite 500, San Jose, CA 95112
FOR: MODERN PLASTICS, INC sii/pae/et INDUSTRIAL FOUNDRY SUPPLY CO. OF CALIF; MODERN PLASTICS, INC.
PH: (408) 287-7788
FAX: (408) 927-0408

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FOR: RICH-TEX, INC.
PH: 415-675-7000
FAX: 415-675-7008

JACKSON & WALLACE
55 Francisco Street, Sixth Floor, San Francisco, CA 94133
FOR: DAP, INC.
PH: (415) 982-6300
FAX: (415) 982-6700

KASOWITZ, BENSON, TORRES & FRIEDMAN LLP
101 California Street, Suite 2050, San Francisco, CA 94111
FOR: CYPRUS AMAX MINERALS CO/sii/pae/alt/eqt/CYPRUS MINES CORP/PAUL W. WOOD; CYPRUS AMAX MINERALS CO/sii/pae/alt/eqt/SIERRA TALC & CHEMICAL COMPANY; CYPRUS AMAX MINERALS CO/sii/pae/alt/eqt/UNITED SIERRA DIVISION; CYPRUS AMAX MINERALS COMPANY
PH: 415-421-6140
FAX: 415-398-5030

McKENNA, LONG & ALDRIDGE
101 California Street, 41st Floor, San Francisco, CA 94111
FOR: CERTAINTEED CORPORATION
PH: (415) 267-4000
FAX: (415) 267-4198

PERKINS COIE LLP
Four Embarcadero Center, Suite 2400, San Francisco, CA 94111
FOR: GEORGIA PACIFIC CORPORATION
PH: (415) 344-7000
FAX: (415) 344-7288

SELMAN & BREITMAN
11766 Wilshire Boulevard, 6th Floor, Los Angeles, CA 90025-6538
FOR: R. T. VANDERBILT COMPANY, INC.; R. T. VANDERBILT COMPANY, INC. sii/pae/et INTERNATIONAL TALC CO INC.
PH: (310) 445-0800
FAX: (310) 473-2525

STEPTOE & JOHNSON
633 West Fifth Street, Suite 700, Los Angeles, CA 90071
FOR: METROPOLITAN LIFE INSURANCE COMPANY
PH: (213) 439-9400
FAX: (213) 439-9599

WALSWORTH, FRANKLIN, BEVINS & McCALL
601 Montgomery Street, 9th Floor, San Francisco, CA 94111
FOR: HENRY COMPANY; THE W.W. HENRY COMPANY
PH: (415) 781-7072
FAX: (415) 391-6258

SERVICE LIST CASE: Weston, Eric [1... 1414]
Page Two

ACTION #: RG08420405

May 6, 2009 12:19 PM

WALSWORTH, FRANKLIN, BEVINS & McCALL - QUINTEC
601 Montgomery Street, 9th Floor, San Francisco, CA 94111
FOR: QUINTEC INDUSTRIES INC.

PH: (415) 781-7072
FAX: (415) 391-6258

WILSON, ELSE, MOSKOWITZ, EDELMAN & DICKER
525 Market Street, 17th Floor, San Francisco, CA 94105-2722
FOR: ASBESTOS CORPORATION, LTD.

PH: (415) 433-0990
FAX: (415) 434-1370

WOOD SMITH HENNING & BERMAN LLP
1401 Willow Pass Road, Suite 700, Concord, CA 94520-5735
FOR: CATHERINE COLLINS; CATHERINE COLLINS dba as DREAM BUILDERS; FRANCIS COLLINS;
FRANCIS COLLINS dba as DREAM BUILDERS

PH: 925-356-8200
FAX: 925-356-8250

End of Service List

AUTHOR: PLEASE COMPLETE



25

TOXICOLOGY AND APPLIED PHARMACOLOGY 147, 000-000 (1997)
 ARTICLE NO. TO973276

Mineralogical Features Associated with Cytotoxic and Proliferative Effects of Fibrous Talc and Asbestos on Rodent Tracheal Epithelial and Pleural Mesothelial Cells

Ann G. Wylie,* H. Catherine W. Skinner,† Joanne Marsh,‡ Howard Snyder,† Carmala Garzzone,*
 Damian Hodkinson,* Roberta Winters,* and Brooke T. Mossman,‡

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Mineralogical Features Associated with Cytotoxic and Proliferative Effects of Fibrous Talc and Asbestos on Rodent Tracheal Epithelial and Pleural Mesothelial Cells. Wylie, A. G., Skinner, H. C. W., Marsh, J., Snyder, H., Garzzone, C., Hodkinson, D., Winters, R. and Mossman, B. T. (1997). *Toxicol. Appl. Pharmacol.* 147, 000-000.

Inhalation of asbestos fibers causes cell damage and increases in cell proliferation in various cell types of the lung and pleura *in vivo*. By using a colony-forming efficiency (CFE) assay, the cytotoxicity and proliferative potential of three mineral samples containing various proportions of fibrous talc were compared to NIEHS samples of crocidolite and chrysotile asbestos in cell types giving rise to tracheobronchial carcinomas, i.e., hamster tracheal epithelial (HTE) cells, and mesotheliomas, i.e., rat pleural mesothelial (RPM) cells. Characterization of mineralogical composition, surface area, and size distributions as well as proportions of fibers in all mineral samples allowed examination of data by various dose parameters including equal weight concentrations, numbers of fibers $>5 \mu\text{m}$ in length, and equivalent surface areas. Exposure to samples of asbestos caused increased numbers of colonies of HTE cells, an indication of proliferative potential, but fibrous talc did not. RPMs did not exhibit increased CFE in response to either asbestos or talc samples. Decreased numbers of colonies, an indication of cytotoxicity, were observed in both cell types and were more striking at lower weight concentrations of asbestos in comparison to talc samples. However, all samples of fibrous minerals produced comparable dose-response effects when dose was measured as numbers of fibers greater than $5 \mu\text{m}$ or surface area. The unique proliferative response of HTE cells to asbestos could not be explained by differences in fiber dimensions or surface areas, indicating an important role of mineralogical composition rather than size of fibers. © 1997 Academic Press

bioassays, the properties of fibers important in reactivity with cells and tissues are unclear (Guthrie and Mossman, 1993; Mossman and Begin, 1989). It is generally agreed that length and width or aspect ratio are important variables for predicting the carcinogenicity and fibrogenicity of durable fibers (Davis *et al.*, 1986; Stanton *et al.*, 1981). However, the mineralogical composition and structural features of fibers and particles may also play a role in pathogenicity (Oehlert, 1991; Wylie *et al.*, 1987; Skinner *et al.*, 1988; Wylie *et al.*, 1993). These properties govern surface properties as well as durability of fibers in the lungs and pleura, factors that may be critical in the development of lung cancer and mesothelioma. (Mossman and Gee, 1989; Mossman *et al.*, 1990; Guthrie and Mossman, 1993; Health Effects Institute, 1991).

Asbestos types, in contrast to a number of other fibrous and nonfibrous nonpathogenic materials, cause both cell proliferation and cytotoxicity in a dose-related fashion in several cell types (reviewed in Health Effects Institute, 1991). These biological responses may reflect the disease potential of various fiber types, as cell injury and hyperplasia are early events in rodent inhalation models of asbestosis and carcinogenesis (Mossman and Gee, 1989; Mossman *et al.*, 1990; Guthrie and Mossman, 1993; Health Effects Institute, 1991). In this study, we compared the cytotoxicity and proliferative potential of three New York talc samples to crocidolite and chrysotile asbestos in cell types affected in asbestos-induced tumors, i.e., hamster tracheal epithelial (HTE) cells, which can give rise to tracheobronchial neoplasms, and rat pleural mesothelial (RPM) cells, cells affected in the development of mesothelioma. In studies here, we used an established colony-forming efficiency (CFE) assay that documents both increases in cell proliferation and cell survival, as measured by increases in numbers of colonies, at low concentrations of minerals, and growth inhibition, as indicated by decreases in colony formation or size at high concentration of minerals, to compare responses to well-characterized samples of asbestos and fibrous talc in HTE and RPM cells. An additional advantage of this bioassay is that it employs cells from the lung and pleura and measures responses

Occupational exposures to mineral fibers such as asbestos are associated with the development of pulmonary and pleural disease (Mossman and Gee, 1989; Mossman *et al.*, 1990; Guthrie and Mossman, 1993). Although various types of asbestos are biologically active in a number of *in vivo* and *in vitro*

to minerals over a 7-day time period of exposure as opposed to shorter time frames used (<24 hr) in most other *in vitro* assays in the literature (reviewed in Health Effects Institute, 1991). In the CFE assay, nonfibrous particles such as glass beads are proliferative or cytotoxic to HTE cells at ≥ 100 -fold concentrations when compared to asbestos at equal weight concentrations (Mossman and Sesko, 1990; Marsh *et al.*, 1994; Timblin *et al.*, 1995).

The three talc samples used here differ somewhat in their mineralogy, both in the types of minerals and in their relative abundances. However, all three contain varying proportions of fibrous talc which is similar dimensionally and morphologically to asbestos. We thus hypothesized that factors other than length and width of fibers would govern the reactivity of minerals in the *in vitro* assays used here. The experiments were undertaken to explore the questions: (1) Do fibrous talc and asbestos fibers cause similar biological responses in epithelial and mesothelial cells? (2) Is reactivity to mineral samples dose related? and (3) Are responses in various cell types related only to numbers and sizes of fibers in each preparation or does mineralogy, including chemical composition, surface properties, and mineral structure, play a role?

METHODS

Sources of Mineral Samples

Three samples from the New York State Gouverneur Mining District, FD14, S157, and CPS183, and two asbestos samples, NIEHS chrysotile (Plasibest 20) and NIEHS crocidolite, were used in this study. The asbestos samples are essentially monomineralic and have been studied in detail (Campbell *et al.*, 1980). The general geology and mineralogy of the Gouverneur District are described by Engle (1962) and Ross *et al.* (1968). FD14 is a commercial talc, S157 was once produced from this district as a fiber talc product, and CPS183 is a laboratory separated concentrate of fibrous talc. Fibrous talc is a general term that includes fibers composed entirely of the mineral talc as well as fibers that are composed of both talc and amphibole (probably anthophyllite) intergrown on a submicrometer scale (Stemple and Binsley, 1960; Vint, 1985). The index of refraction of the fibers increases as the amphibole component increases (Veblet and Wylie, 1993). Fibrous talc is present in trace amounts in many commercial talc deposits, but it is a major component of most talc products from the Gouverneur Talc District. All samples were characterized by scanning electron microscopy (SEM), optical microscopy (OM), and x-ray diffraction (XRD); CPS183 and NIEHS crocidolite were also studied by TEM as this technique is more sensitive for the detection of smaller, thinner particles.

Characterization of Minerals

The samples were studied by XRD and SEM at Yale University in order to establish the overall mineralogy, mineral abundances, and the number of fibers per microgram. They were examined by OM at the Laboratory for Mineral Deposits Research, University of Maryland, in order to determine the mineralogy, mineral abundances, and number of fibers per microgram of the samples, and by transmission electron microscopy (TEM) at AMA Laboratories, Beltsville, Maryland (under the direction of the Laboratory for Mineral Deposits Research) for the purpose of determining the detailed size distribution of fibrous talc and especially to examine the content of fibers 0.1 μm in width and smaller. The protocols followed in each laboratory are described below. For purposes of this paper, "particles" refers to particles of all aspect ratios. "Fiber" refers to particles that have an aspect ratio (length/width) of at least

five and to bundles of such fibers. "Fibers" (unless otherwise specified) include true mineral fibers (very high aspect ratio particles whose shapes were attained during mineral formation) as well as elongated cleavage fragments (shape produced during comminution).

X-ray diffraction. Samples mixed with an internal standard and spun to minimize preferred orientation were analyzed by using a SCITAC Pad V automated diffractometer. Identification of minerals was based on comparison of the X-ray pattern with standard patterns.

Optical microscopy. A known weight of sample was dispersed in water and then passed through a 22-gauge needle 8X and sonicated 4 min before mounting on slides. A drop of immersion oil $n_D = 1.598$ was placed over the dried sample. For all samples except chrysotile ($N = 2$ mixtures), at least five separate mixtures were prepared from each sample and at least two slides were made from each mixture. One-hundred fibers were counted from each slide. All fibers longer than 5 μm and all particles that appeared to be composed of bundles of fibers were categorized by length and width and by index of refraction according to the following characteristics: all indices of refraction greater than 1.598 (amphibole), index of refraction parallel to elongation greater than 1.598 and index of refraction perpendicular to elongation less than 1.598 (fibers composed of talc and a significant amount of amphibole, and referred to as talc/amphibole), or all indices of refraction less than 1.598 (fibers dominated by the mineral talc). The number of fibers per microgram was calculated by assuming that particle distributions were representative and directly proportional to the area of the filter.

Scanning electron microscopy. A known weight of sample was dispersed in water, passed through a 22-gauge syringe needle 8X, and deposited onto a 0.45- μm cellulose filter. Replicate preparations were made for each sample and analyzed independently to test for homogeneity. The filters were examined with a JEOL JXA 8600 SEM equipped with EDXA. Particles that were at least 1 μm in length and 0.12 μm in width could be detected. Mineral identification was automated by predetermined the relative percentages of Na, Ca, K, Mg, Al, Si, Mn, and Fe in mineral standards and comparing them to the elemental compositions determined on the sample particles (Petruk and Skinner, 1997). The number of particles per microgram of sample was calculated by assuming that the particle distributions were representative and directly proportional to the area of the filter.

Transmission electron microscopy. A known weight of sample was dispersed in water, flushed with a 22-gauge syringe needle 8X, and then sonicated for 4 min. The solutions were then diluted and filtered through a 0.22- μm cellulose acetate filter. The samples were analyzed on a JEOL 100 CX II electron microscope at 19,000X magnification. Over 300 fibers from each sample were measured.

Surface area measurements. All five samples were tested for single point N₂-BET surface areas by J. W. Anderson of R. T. Vanderbilt Corporation. The tests were repeated 4X for each sample. Data were expressed as square millimeters per gram of sample.

Cell culture and addition of fibers to bioassay. A HTE cell line previously isolated and characterized by Mossman *et al.* (1980) was maintained at passages from 38 to 50 and cultured routinely in Ham's F12 medium (Gibco, Grand Island, NY) containing penicillin and streptomycin (both at 100 U/ml) and 10% newborn calf serum (Gibco). This cell line is diploid and possesses features, i.e., mucin secretion and cilia, of differentiated epithelial cells. Primary cultures of RPM cells were isolated by scraping the parietal pleural of two weaning male Fischer 344 rats (Janssen *et al.*, 1994) and were maintained for up to eight passages in Ham's F12-DMEM containing antibiotics (as above), 10% fetal calf serum (Gibco), hydrocortisone (100 ng/ml), insulin (2.5 $\mu\text{g}/\text{ml}$), transferrin (2.5 $\mu\text{g}/\text{ml}$), and selenium (2.5 ng/ml).

Mineral samples presterilized in a dry oven overnight at 130°C were added to Hanks' balanced salt solution (HBSS) before filtration 8X through a 22-gauge syringe needle and addition to cultures in 2% serum-containing medium.

A CFE assay was also used as a sensitive test for cytotoxicity and cell proliferation (Mossman and Sesko, 1990; Marsh *et al.*, 1994; Timblin *et al.*, 1995). HTE (400 cells/60 mm dish) and RPM (2000/60 mm dish) were plated for 24 hr before addition of dusts to medium containing 2% serum as described

TABLE 1
Characterization of Talc and Asbestos Samples

Sample	Mineralogy (% of sample)		
	Mineral composition		
FD14	Talc (37), tremolite (35), serpentine (15), other (<2), unknown (12) ^a		
S157	Talc (60), tremolite (12), unknown (21), other (4), anthophyllite (3), quartz (1)		
CPS183	Talc (50), quartz (12), unknown (28), tremolite (8), other (4), anthophyllite (3)		
NIEHS crocidolite	Riebeckite (100)		
NIEHS chrysotile	Chrysotile (100)		
	Mineralogy of fibers >5 μ m		
FD14	Talc (62), amphibole (24), talc/amphibole (14)		
S157	Talc (84), amphibole (11), talc/amphibole (5)		
CPS183	Talc (99), amphibole (1), talc/amphibole (<1)		
NIEHS crocidolite	Crocidolite (100)		
NIEHS chrysotile	Chrysotile (100)		
Sample	Surface area (mm ² /gm)	Fibers/ μ g	Fibers \geq 5 μ m/ μ g
	Surface area and fibers/ μ g ^b		
FD14	6.2 \pm 0.2 ^d	2.5 \times 10 ⁹	0.8 \times 10 ⁹
S157	4.9 \pm 0.2	1.1 \times 10 ⁹	4.8 \times 10 ⁸
CPS183	4.9 \pm 0.4	1.1 \times 10 ⁹	9.2 \times 10 ⁷
NIEHS crocidolite	10.3 \pm 1.3	5.3 \times 10 ⁹	3.8 \times 10 ⁸
NIEHS chrysotile	25.4 \pm 0.5	5.3 \times 10 ⁹	3.4 \times 10 ⁸

^a Primarily magnesium silicates (talc and talc/amphibole) with SEM/EDXA spectra too low for conclusive identification.

^b The most abundant amphibole is tremolite. A very small amount of anthophyllite may be included.

^c Data are based on SEM measurements. Chrysotile values are low due to its poor visibility on the SEM. Standard error of measurement is estimated to be 20%.

^d Mean \pm standard error of measurement of four individual measurements per group.

above. Minerals were then added, and untreated and mineral-exposed cultures were maintained for 7 days before examination. At this time, plates were rinsed in HBSS and fixed in methanol and stained with 10% Giemsa stain, and total colonies greater than 50 cells per plate were counted by using a blind code (Mosesman and Sedko, 1990; Mouch et al., 1994; Timbitt et al., 1995). Duplicate experiments were performed for each bioassay with N = 3-4 dishes per group per experiment. Statistical analyses of all data were performed by using analysis of variance and trend analysis.

RESULTS

Mineralogy

The overall mineralogical composition, the mineral composition of the fibers, the number of fibers per microgram, and the surface area measurement of the samples used in our studies are given in Table 1. FD14 is composed of platy talc, true mineral fibers of talc and talc/amphibole, cleavage fragments of tremolite, platy serpentine (chrysotile absent), and trace

amounts of other minerals. Fibers make up approximately 11% of the particles identified by SEM. They are mostly talc followed by amphibole cleavage fragments and talc/amphibole. S157 is composed of platy talc, true mineral fibers of talc and talc/amphibole, tremolite and anthophyllite cleavage fragments, and quartz. Fibers make up about 37% of the particles, and they are mostly talc with smaller amounts of amphibole cleavage fragments and talc/amphibole. CPS183 is composed of true mineral fibers of talc and a very small amount of talc/amphibole, cleavage fragments of tremolite and anthophyllite, and quartz. Fifty-nine percent of the particles are fibers, and they are almost all fibers of talc. The three talc samples represent a range in the amount of fiber present (both in portion of sample and in number of fibers/ μ g) and in the mineralogy of the fibrous portion, primarily in the content of amphibole both as a separate phase and as a component of fibrous talc. NIEHS crocidolite and NIEHS chrysotile are essentially monomineralic populations of true mineral fibers of riebeckite and chrysotile, respectively. The very small widths result in many more fibers per microgram than are found in the talc samples.

Surface Area

The specific surface areas (mm²/g) of talc samples are smaller than asbestos samples and roughly comparable to each other. The larger surface area of FD14 compared to the other talc samples is probably due to the presence of more abundant small platy talc particles that have two almost equivalent dimensions and one that is very much smaller, producing a large surface area/mass ratio. The greater surface area of chrysotile with respect to crocidolite can be attributed to its lower density and small fibril width and perhaps in part to the straw-like structure of the chrysotile fibers if N₂ penetrates the hollow center of the chrysotile tubes. Since the surface reactivity of different minerals affects the surface adsorption of N₂, some of the variation among samples may be related to mineralogy as well.

Size Distributions of Fibers in Mineral Preparations

Figure 1 shows the frequency of length and width for all fibers in units of fibers/microgram and the frequency of width for only those fibers greater than or equal to 5 μ m in length as established by SEM and OM. The abundance of narrow crocidolite fibers accounts for the fact that the NIEHS crocidolite contains more fibers per microgram than any other sample (Table 1). CPS183 and S157 are very similar in many respects. They are composed of similar numbers of fibers per microgram, but there are slightly more longer fibers and fewer long, wide fibers in CPS183. FD14 contains the smallest number of fibers per microgram and the highest proportion of the widest fibers. In general, talc fibers are narrower than amphibole cleavage fragments and the differences in the sizes of the fibers among the talc samples in part reflect the differences in the abundance of amphibole cleavage fragments vs fibrous talc. As

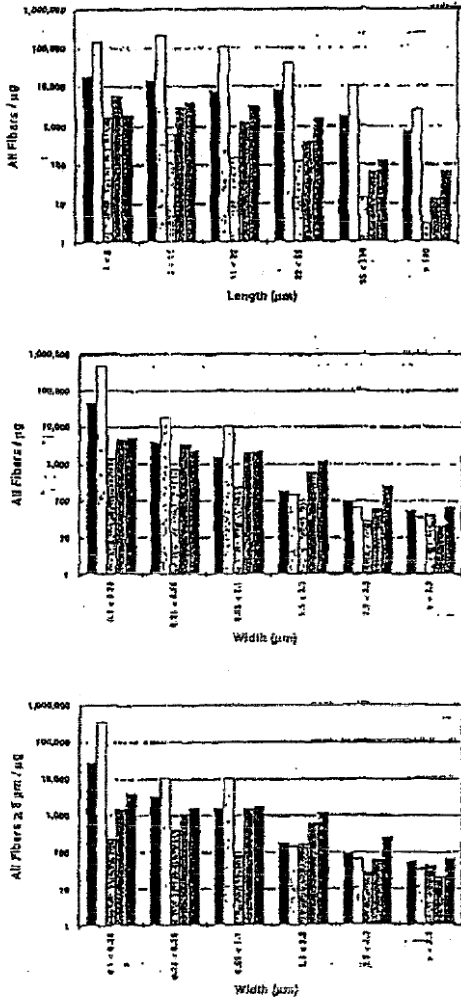


FIG. 1. The frequencies of length and width in units of fibers per microgram are shown for the three talc samples and two NIEHS asbestos samples. Also shown is the frequency of width (fibers/μg) for those fibers longer than 5 μm. (H) Chrysotile; (□) crocidolite; (■) FD14; (▧) S157; (▩) CPS183.

the amphibole content increases from CPS183 to S157 to FD14, the total fiber content goes down, and, on average, the fibers decrease in length and increase in width. No distinction between the size distributions of talc and talc/amphibole fibers were documented.

Table 2 gives the percentage of fibers in length-width categories

for CPS183 and NIEHS crocidolite asbestos as measured by TEM. These data enable a direct comparison between the dimensions of fibrous talc and crocidolite that is not restricted by the 0.1-μm width limit in the SEM data. These two true mineral fiber populations are quite similar, differing most notably in the higher proportion of wide (>0.5 μm) fibers and slightly lower proportion of long (>20 μm) fibers in fibrous talc.

CFE Assays

Combined data from duplicate experiments with HTE and RPM cells are presented in Figs. 2 and 3, respectively. CFE data are expressed as a ratio of the number of colonies in mineral-exposed cultures in comparison to control colonies × 100 at various concentrations of minerals on a weight basis (μg/cm²) as is typically found in the literature (Mossman *et al.*, 1990; Health Effects Institute, 1991). In HTE cells, both asbestos types showed an elevated number of colonies (*p* < 0.05) at lowest concentrations indicating increased cell proliferation and/or survival in response to asbestos fibers and confirming earlier studies (Mossman and Sesko, 1990; Marsh *et al.*, 1994). Significant decreases (*p* < 0.05) in CFE, an indication of toxicity or growth inhibition, were observed at concentrations of asbestos of 0.5 μg/cm² and greater. In contrast, RPM cells did not exhibit proliferative effects in response to either asbestos type, but statistically significant (*p* < 0.05) decreases in CFE were observed at concentrations of asbestos fibers greater than 0.05 μg/cm². In both cell types, the talc samples were less cytotoxic than asbestos. CPS183 was the most toxic talc sample, followed by S157 and FD14. In contrast to the other mineral samples, S157 and FD14 did not exhibit significant linear trends in cytotoxicity with increasing dosages in HTE cells.

Figures 4 and 5 show the same cellular response data as Figs. 2 and 3, but dose is calculated based on the number of

TABLE 2
Percentage of Fibers by Length and Width (μm) as Determined by Transmission Electron Microscopy

Length	Width: 0.01-0.1	>0.1-0.25	>0.25-0.5	≥0.5-1.0	>1.0
CPS183					
<1	2.9	1.5	—	—	—
>1-2	4.1	14.1	0.5	—	—
>2-5	2.5	22.0	6.8	1.6	—
>5-10	0.9	9.8	4.3	4.5	0.5
>10-20	0.5	7.3	3.2	2.3	2.5
>20-50	0.2	1.8	2.7	1.4	2.0
>50-100	—	—	—	—	0.2
NIEHS crocidolite					
<1	0.3	0.3	—	—	—
>1-2	1.1	9.5	0.3	—	—
>2-5	4.6	31.6	2.9	—	—
>5-10	1.4	18.1	3.7	0.6	—
>10-20	1.7	10.7	3.2	0.3	—
>20-50	0.6	2.9	1.4	1.1	—
>50-100	—	1.7	1.4	0.6	—

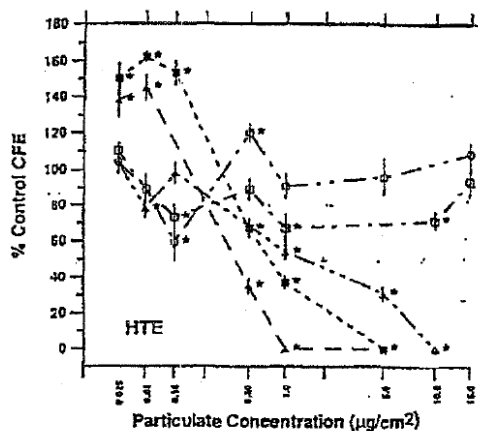


FIG. 2. Colony-forming efficiency (CFE) of HTE cells at various weight concentrations of samples. Standard error in CFE is indicated on symbol. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (C) FD14; (□) S157; (Δ) CPS183.

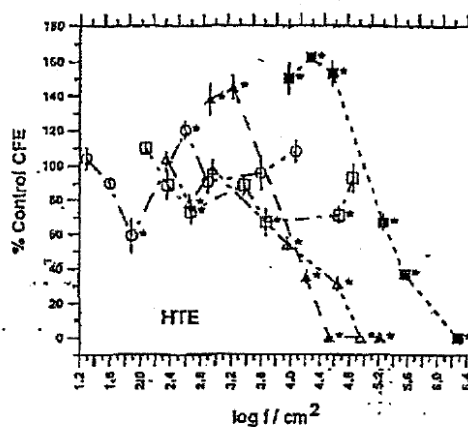


FIG. 4. Colony-forming efficiency (CFE) assays in HTE cells expressed as a function of fibers $\geq 5 \mu\text{m}$ in length per cm^2 (f/cm^2). The symbol width is equal to or greater than estimated error. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (C) FD14; (□) S157; (Δ) CPS183.

fibers greater than or equal to $5 \mu\text{m}/\text{cm}^2$ (fibers/ cm^2) rather than total sample weight per square centimeter. The data are taken from the SEM characterizations, but the comparisons would be the same if OM or TEM data were used. Doses of total sample per square centimeter administered to the cultures covered such a wide range that there were equivalent doses of fibers per square centimeter in almost all length/width categories for all samples. Therefore, even though crocidolite and

chrysotile contained many more fibers per microgram than the talc samples, the same number of fibers per centimeter were administered in low doses of asbestos and high doses of talc ($\mu\text{g}/\text{cm}^2$).

As shown in Fig. 4, the enhanced responses of HTE cells to asbestos appear to be a function of mineralogy and not fiber

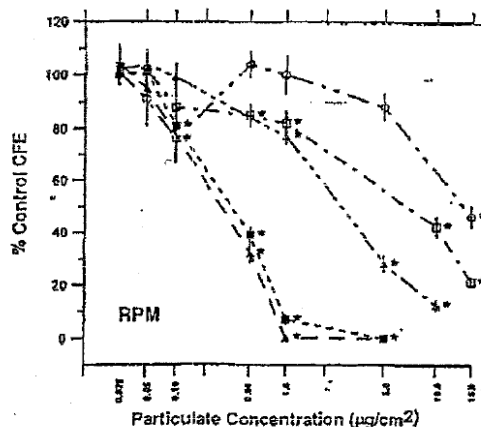


FIG. 3. Colony-forming efficiency (CFE) of RPM cells at various weight concentrations of samples. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (C) FD14; (□) S157; (Δ) CPS183.

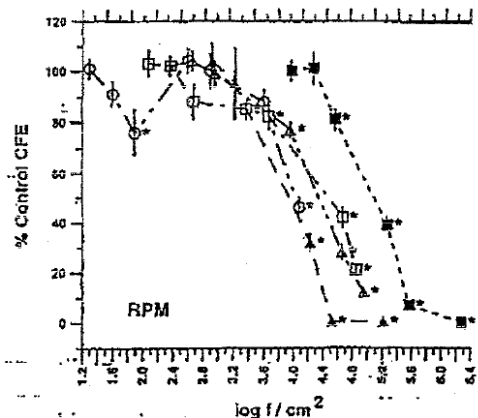


FIG. 5. Colony-forming efficiency (CFE) assays in RPM cells expressed as a function of fibers $\geq 5 \mu\text{m}$ in length and length/width $\geq 5:1$ per cm^2 (f/cm^2). The symbol width is equal to or greater than estimated error. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (C) FD14; (□) S157; (Δ) CPS183.

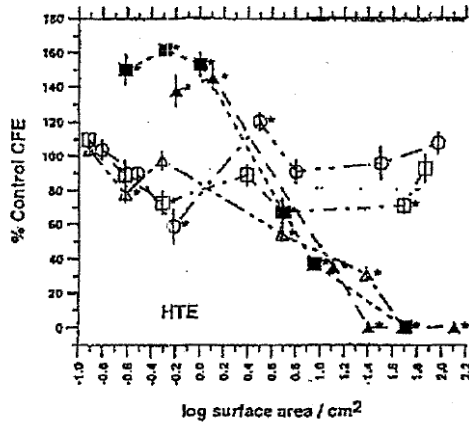


FIG. 6. Colony-forming efficiency (CFE) assays in HTE cells expressed as a function of surface areas of mineral samples (mm^2/cm^2). The symbol width is equal to or greater than one standard error. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (O) FD14; (C) S157; (Δ) CPS183.

concentration. The same concentrations of fibers greater than 5 μm of chrysotile and crocidolite that cause proliferation in HTE cells result in no effects when comparable concentrations of FD14 fibers are used, insignificant cytotoxicity with S157 fibers, and significant cytotoxicity with CPS183 fibers. It therefore seems likely that characteristics of the samples that are related to their mineralogy contribute to proliferation and/or cell growth inhibition.

As shown in Fig. 5, the response of RPM cells appears to be independent of the mineralogy of the samples. Neglecting the slight cytotoxic response of FD14 at low concentrations, the minimum concentrations of fibers per square centimeter necessary to cause significant decreases in CFE is between 10^3 and 10^4 fibers per square centimeter for all samples. In changing the size definition of a fiber (e.g., $>8, \leq 0.25 \mu\text{m}$; $>20 \mu\text{m}$, all widths; all lengths, $w < 0.28 \mu\text{m}$), we found that the effective dose changed but the relationships among the samples did not (data not shown).

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Figures 6 and 7 show CFE data in HTE and RPM cells, respectively, as a function of surface area. It is evident that surface area per se cannot explain cellular responses to minerals in HTE or RPM cells. Despite the fact that crocidolite and chrysotile have much larger surface areas per microgram, the range in the amount of sample administered resulted in similar doses between the asbestos and talc samples.

DISCUSSION

Asbestos is a term applied to a group of minerals that possess similar physical properties because of their habit of growth. However, different types of asbestos differ in their

mineralogy and fiber size, which in turn may vary in preparations obtained from different geographic locations and sometimes even from the same locality (Guthrie and Mossman, 1993). The two most widely studied types of asbestos are the serpentine mineral chrysotile ($\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$), the most common type of asbestos in the Northern hemisphere and in commercial usage historically, and the amphibole riebeckite, crocidolite ($\text{Na}_2\text{Fe}_3^{2+}\text{Fe}_2^{3+}\text{Si}_8\text{O}_{22}(\text{OH})_2$), a high-iron-containing asbestos mined in parts of South Africa and Western Australia. Although crocidolite is implicated as more potent in the induction of mesothelioma, both chrysotile and crocidolite are linked occupationally to the development of lung cancer and asbestosis (Mossman and Gee, 1989; Mossman *et al.*, 1990, 1996; Guthrie and Mossman, 1993; Health Effects Institute, 1991).

How asbestos causes lung disease is uncertain, but acute toxicity, measured by a variety of techniques which have detected increases in membrane permeability, necrosis, release of oxygen-free radicals, exfoliation, and cell death (reviewed in Mossman and Begin, 1989) has been observed in a variety of cells exposed to high concentrations of fibers. At lower concentrations, both crocidolite and chrysotile asbestos cause cell proliferation in HTE cells and organ cultures, phenomena not observed with various synthetic fibers or nonfibrous analogs of asbestos (Marsh and Mossman, 1988; Woodworth *et al.*, 1983). These biological responses to asbestos may be important in the induction of neoplasms as cell injury may cause exfoliation and compensatory hyperplasia of surrounding cell types which are more sensitive to genetic damage. As suggested by Ames and Gold (1990), mitogenesis may facilitate mutagenesis and contribute to tumor development. In addition, cell proliferation is

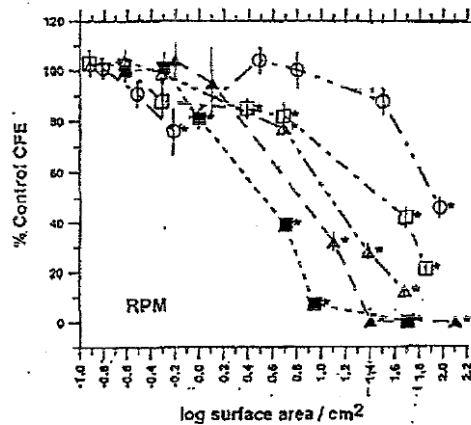


FIG. 7. Colony-forming efficiency (CFE) assays in RPM cells expressed as a function of surface areas of mineral samples (mm^2/cm^2). The symbol width is equal to or greater than one standard error. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (O) FD14; (C) S157; (Δ) CPS183.

an important component of tumor promotion and progression, and asbestos is a documented tumor promoter in epithelial cells of the respiratory tract (reviewed in Mossman *et al.*, 1990, 1996; Health Effects Institute, 1991).

Our results with asbestos samples are interesting in that HTE cells are unique in exhibiting increased CFE, in comparison to untreated and talc-exposed cells. Moreover, both cell types were more sensitive to the cytotoxic effects of equal weight dose amounts of asbestos, in comparison to talc. The lack of response of RPM cells to the proliferative effects of asbestos may reflect the fact that single cells, as opposed to confluent monolayers (Marsh and Mossman, 1988; Woodworth *et al.*, 1983), were exposed to fibers here. For example, when added to confluent, growth-arrested RPM cells, crocidolite causes cell proliferation as measured by dual fluorescence techniques with an antibody to 5-bromodeoxyuridine (BrdU) and the DNA dye YOYO (Goldberg *et al.*, 1997). Moreover, increased numbers of both pleural mesothelial and bronchial epithelial cells incorporating BrdU are observed after inhalation of NIEHS crocidolite or chrysotile by rats (Berube *et al.*, 1996). As suggested by Gerwin *et al.* (1987), mesothelial cells may require growth factors, either produced endogenously or produced by other cell types, for proliferative responses to asbestos, and the small numbers of cells used in the CFE bioassay may not be sufficient for amounts of cytokines needed here.

Our experiments also show that fibrous talc does not cause proliferation of HTE cells or cytotoxicity equivalent to asbestos in either cell type despite the fact that talc samples contain durable mineral fibers with dimensions similar to asbestos. These results are consistent with the findings of Stanton *et al.* (1981) who found no significant increases in pleural sarcomas in rats after implantation of materials containing fibrous talc. Moreover, Smith and colleagues report no sarcomas in hamsters after implantation of FD14 (1979), and other rodent studies in which tales of various types have been administered by inhalation of injection also have not shown an increased incidence of mesotheliomas or carcinomas (Stenback and Rowland, 1978; Wehner *et al.*, 1977). Epidemiological studies also indicate that talc in a number of occupational settings is less pathogenic than asbestos in the development of lung cancer, and the reports indicating excess lung cancer mortality may underestimate smoking habits, an important confounder, and exposure to commercial asbestos (reviewed in IARC, 1987a,b; Ross *et al.*, 1993). In essence, data have not proven that talc is a human carcinogen, as small numbers of cohorts have been studied, smoking histories are poorly documented, and workers were often exposed to other dusts, including asbestos, that may cause lung disease.

Increases in cytotoxicity over time with CPS183, as opposed to the other talc samples, in both cell types also suggest the importance of mineralogic differences as the size distributions of CPS183 and S157 are similar. Since CPS183 fibers are mainly talc, while S157 contains more talc/amphibole and amphibole, mineralogical variability may affect the responses of cells to cytotoxic effects of talc. Nonfibrous particles such

quartz may also play a role in cytotoxicity of the talc samples since CPS183 higher number of quartz particles, a mineral known to be cytolytic (Mossman and Begin, 1989).

Data presented here lend increased uncertainty to the concept that long thin fibers [length $>8 \mu\text{m}$, width $<0.25 \mu\text{m}$, i.e., the Stanton hypothesis (Stanton *et al.*, 1981)] are the predominant factors predicting tumorigenicity and fibrogenicity (Mossman *et al.*, 1990; Health Effects Institute, 1991). In his elegant and comprehensive studies, Stanton and colleagues implanted two samples of fibrous talc (No. 6 and No. 7 samples) into rats. One of us (AW) examined talc No. 6 and found it to be similar in mineralogy, size distribution, and morphology to FD14, and little is known about No. 7 except that it was obtained from the Gouverneur District. Neither talc produced significant excesses in pleural sarcomas despite the fact that the dose of fibers $>8 \mu\text{m}$ in length and $<0.25 \mu\text{m}$ in width in sample No. 6 was large enough to predict a tumor probability of $>50\%$.

In summary, intrapleural injection studies in rats, epidemiologic investigations, and our *in vitro* work with fibrous talc here suggest caution in generalizing that durable fibers $>5 \mu\text{m}$ or with aspect ratios approximating Stanton criteria are always more bioreactive and pathogenic. Our work is significant in that it supports reanalysis of the Stanton data by Wylie *et al.* (1987) and others (Oehlert, 1991; Nolan and Langer, 1993) and provides data implicating the importance of mineral type, rather than fiber length per se, in determining cellular outcomes associated with pathogenicity of mineral dusts.

ACKNOWLEDGMENTS

Work was supported in part by a grant from NIEHS (R01ES06499) to BTM and from R. T. Vanderbilt Company to AGW and CS. We thank Dr. Cynthia Timbina for her input into interpretation of CFE data.

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Wylie, A. G., Mossman, B. T., et al - 1997 ⁽⁵⁰⁾

Mineralogical Features Associated with Cytotoxic and Proliferative
Effects of Fibrous Talc and Asbestos on Rodent Tracheal
Epithelial and Pleural Mesothelial Cells

"fibrous talc does not cause proliferation of HTE cells or cytotoxicity equivalent to asbestos in either cell type despite the fact that talc samples contain durable mineral fibers with dimensions similar to asbestos. These results are consistent with the findings of Stanton, et al (1981) who found no significant increases in pleural sarcomas in rats after implantation of minerals containing fibrous talc."

EXHIBIT

3

Kelise



THE UNIVERSITY OF MARYLAND

COLLEGE PARK CAMPUS
Department of Geology

Dr. C.S. Thompson
R.T. Vanderbilt Company, Inc.
30 Winfield Street
Norwalk, Connecticut 06852

July 28, 1989

Dear Dr. Thompson, *Slam*

I have examined the sample of Mouldene(S-158) which you sent to me on July 19, 1989. The material consists primarily of fibrous talc with small amounts of tremolite, anthophyllite, carbonate, quartz, platy talc and feldspar.

The fibrous talc occurs in fiber bundles with splayed ends and as what appear to be individual fibers. The indices of refraction of this material are highly variable. Parallel to elongation, γ ranges from 1.594 to 1.576; however, most of the fibers and fiber bundles have γ 's between 1.582 and 1.588. Perpendicular to elongation the indices of refraction are much more variable, ranging from 1.536 to 1.578. These values represent the range in α and β . In general, the more the fibers display the classical characteristics of asbestos, i.e., fiber bundles with splayed ends, small fibril width, curved fibers, etc., the lower are the indices of refraction within the ranges given above.

The anthophyllite does not display asbestiform characteristics. It is most easily recognized by its peculiar striped extinction pattern which also appears to be reflected in plain light as variable indices of refraction. These characteristics might be explained as an intergrowth of anthophyllite and talc. γ for anthophyllite is always greater than 1.600 while α was measured as 1.596.

Tremolite, like anthophyllite, does not display the characteristics of asbestos. It is generally blocky, but an occasional particle has an aspect ratio in excess of 10:1. α for tremolite was measured as 1.600, and γ for tremolite is greater than 1.600.

Tremolite and anthophyllite are about equally abundant. Together they total 5-10% of the sample. A few percent of the sample is carbonate, a little less is quartz and feldspar occurs only in trace quantities.

If you have any questions, please let me know.

Sincerely yours,

Ann G. Wylie

INTER-OFFICE MEMORANDUM

To: P. Vanderbilt



Date: September 23, 1987

From: C. S. Thompson

B-FAME-3

Subject: Mouldene and Other International Talc Co. Fiber Products

The ore for Mouldene and all other fiber grades came from the No. 3 Mine in Talcville. These products were normally diluted with non-fibrous ores to maintain the desired oil/water absorption.

My early, and very preliminary, examination of the fibrous component of the fiber products by microscopic methods led me to the conclusion that the fibers were chrysotile since the optical properties are fairly similar and they bore a resemblance to some of the chrysotile I had worked with at Union Carbide (Coalings). This conclusion was also influenced by x-ray diffraction studies which showed the presence of a serpentine component in the ore (chrysotile, antigorite or lizardite) and the fact that I had never before seen talc in a fibrous habit.

Once the assets of ITC had been purchased and I had the opportunity to examine the ore and make concentrates of the fibrous component, optical (outside consultant) and x-ray diffraction studies made it clear that no chrysotile was present and that the fibers were predominately talc with a minor amphibole component. Optical examination indicated that, of the true fibers, approximately 1 in 20, had indices of refraction too high for talc and in the range of anthophyllite. Sometimes the fiber would have talc indices on one end grading to anthophyllite indices on the other, indicating some kind of hybrid or mixed mineral. Based on these observations it appeared that -5% of the fiber content was potentially anthophyllite and since the fiber products (Fiber 1, 2, 6N, Mouldene, etc.) contained between 20 to 60% fibers, I recommended that an asbestos label be carried by these products. A Mineral Safety Data Sheet (MSDS) was also issued listing these fibers as asbestiform. The listing in Section II of the ingredients in Mouldene and the others on the MSDS was incorrect and misleading. Instead of reading "Asbestiform Talc and/or asbestiform anthophyllite", the category should have been listed as "Asbestiform talc with trace to very minor amounts of asbestiform anthophyllite".

All these fiber products were discontinued by the end of 1976.

It was not until the late 1970's to mid-1980's when detailed studies were conducted using Transmission Electron Microscopy (TEM) and Selected Area Electron Diffraction (SAED) methods that we fully realized that the great majority of the fibers originally thought to be anthophyllite asbestos were in truth hybrid alteration minerals consisting of intimate intergrowths of talc and amphibole minerals (probably anthophyllite) generally referred to as "talcboles" or "biophyriboles". These are not classified as asbestos under any regulatory standard (see attached Bureau of Mines Publication RI 8923).

CST:
attachment

WES000043



Note to the File

Removal of 300 bags of MOULDENE Talc
From Armstrong Mold Company - Syracuse, NY

On May 2, 1992 I visited Armstrong Mold Company to observe the removal of 300 bags of unused "Mouldene". Because this discontinued talc product had been improperly labeled as asbestos containing, a licensed abatement contractor was retained by the owner of this material to remove it from his premises as an asbestos containing material. Rather than bear the analytical costs involved in proving this material contains no asbestos and was mislabeled, it was decided to handle this material "as though it did" contain asbestos in the interest of cost containment.

Overseeing this removal project was Mr. Alan Avrigh, who serves as the owner's occupational health and safety consultant. Mr. Avrigh is licensed to oversee projects of this nature and was responsible for retaining the removal contractor and obtaining all state required certificates and the burial permit. As per standard operating procedure (mandated), this removal project involved the following basic steps:

1. Each paper Mouldene bag was placed in a pre-labeled plastic bag and sealed after torn bags were patched with tape.
2. The removal contractors wore the typical removal gear (i.e. full body coveralls and respirators). The area was properly vacuumed after the work.
3. Double wrapped bags were placed in a covered box trailer and taken to a secured landfill for burial in West Virginia.
4. During and after the bags were removed from the owner's warehouse, air samples were taken to confirm the absence of residual contamination in the warehouse area.

Prior to the re-bagging, I inspected the bags and found about 5% to be in poor condition (some bags were torn). There was some evidence of spillage in the warehouse area. I took a sample from one of the bags to hold in the event future inquiries develop. This sample is labeled "K-100 (Mouldene)" and shall be filed with this record.

The removal project went smoothly and took approximately three hours. A listing of participants, phone numbers and license numbers was partially obtained on the removal date. A more complete listing shall be forwarded with the bill and retained in our files.

There was no evidence of any "hidden" agenda. I spoke with the owner of the metal casting facility who was not in the least concerned. In fact, Mr. Armstrong asked about the possible use of our talcs or our wollastonite in new processes he was considering (I left Randy Johnson's name and number for follow-up in that regard). The removal activity took place after work hours, there were no spectators, inquiries or any sign that this was anything other than a straight forward removal/disposal effort.

John W. Kelse
Corporate Industrial Hygienist
May 4, 1992



148

R. T. VANDERBILT COMPANY, INC.
30 WINFIELD STREET
NORWALK, CONNECTICUT 06858

MAIL ROOM
MAIL ROOM
MAIL ROOM
MAIL ROOM

January 2, 1975
Georgia-Pacific Corporation
900 South West Fifth Avenue
Portland, Oregon 97204

Attention: Mr. Edward L. Assen
Purchasing Manager

Gentlemen:

In the course of our assuming the business of the former
International Talc Company, we will continue to market
five fibrous (asbestiform) type talcs previously supplied
by them, namely:

1. Fiber #1
2. Fiber #2
3. Mouldone
4. 6E Fiber
5. EL Fiber

We intend to label bags containing these products with an
Asbestos CAUTION Label as follows:

CAUTION-PRODUCT CONTAINS
ASBESTOS FIBERS. AVOID
CREATING DUST. BREATHING
ASBESTOS DUST MAY CAUSE
SERIOUS BODILY HARM.

As you know, the fibrous fibers present in these grades,
which make them especially useful, are the asbestiform
varieties of those minerals normally contained in commer-
cial talc and consequently fall under Section 1910.93a,
the OSHA Asbestos Standard.

Very truly yours,

Paula A. Harvey
Specialties Department

PL. 1 (no way)
SER. NO. 5-1-80
MARKET 5. KRAMER H.C.
100-110





WES000054

NOTE: Exposure to all airborne mineral dusts is subject to OSHA regulations in accordance with Section 1910.93 of the Occupational Health and Safety Administration Standard as published in the Federal Register of October 18, 1972, starting on page 22139.

SECTION I	
TRADE NAME AND SYNONYMS	MOULDENE, II. FIBER No. 2 Industrial Fibrous Talc
MINERAL FAMILY	Hydrous silicates
CHEMICAL COMPOSITION	Complex hydrous calcium magnesium silicates

MATERIAL	SECTION II INGREDIENTS	% RANGE
Asbestiform talc and/or asbestiform anthophyllite		40 - 60
Talc - non-asbestiform		5 - 15
Non-asbestiform tremolite and/or anthophyllite		30 - 60
Quartz		1 - 5
Serpentine		5 - 10

SECTION III PHYSICAL DATA			
COLOR	White	SPECIFIC GRAVITY (IND-11)	±2.7
APPEARANCE	Fibrous		
OTHER PROPERTIES			

MATERIAL	SECTION IV HEALTH HAZARD DATA	*TLV
Asbestiform talc and asbestiform anthophyllite	5 fibers/cc > 5µm. in length	
Talc - non-asbestiform		20 Mppcf
Non-asbestiform		20 Mppcf
Serpentine		50 Mppcf
Quartz	30 mg./cu.m. ± % Quartz + 2	

SECTION V SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE	
Avoid breathing dust. Use respirator if TLV's exceeded.	

DATE: May 1, 1975

OVER INFORMATION

This information is furnished solely for the purpose of disclosure regarding health hazard and shall not be used or relied upon by any person for any other purpose.

Date 10-15-79
 Batch # 6
 Case 611120-V-OWENS
 Deponent Verdebilt
 Reporter John L. Jones, CRS File # 44-23
 Chem Reporting Services, Inc.
 BEC-00-1171

MOULDENE FILE

EXHIBIT	7
Deponent	Keise
Date	8/10 Rptr. KK
WWW.DEPOBOOK.COM	

148

F. T. VANDERBILT COMPANY, INC.
30 WINFIELD STREET
NORWALK, CONNECTICUT 06855

CABLE ADDRESS
F. T. VANDERBILT COMPANY, INC.
P.O. BOX 200
NORWALK, CT 06855

January 2, 1975

Georgia-Pacific Corporation
900 South West Fifth Avenue
Portland, Oregon 97204

Attention: Mr. Edward L. Assan
Purchasing Manager

Gentlemen:

In the course of our assuming the business of the former
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4. GR Fiber
5. EL Fiber

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ASBESTOS DUST MAY CAUSE
SERIOUS BODILY HARM.

As you know, the fibrous fibers present in these grades,
which make them especially useful, are the asbestiform
varieties of those minerals normally contained in commer-
cial talc and consequently fall under Section 1910.93a,
the OSHA Asbestos Standard.

Very truly yours,

Paula A. Harvey
Specialties Department

PL
SER: EK
5-1-80
DATE: 5-1-80
BY: [Signature]



WES000054

774

NOTE: Exposure to all airborne mineral dusts is subject to OSHA regulations in accordance with Section 1910.83 of the Occupational Health and Safety Administration Standard 28 published in the Federal Register of October 18, 1972, starting on page 22139.

SECTION I	
TRADE NAME AND SYNONYMS	MOULDENE, II FIBER No. 2 Industrial Fibrous Talc
MINERAL FAMILY	Hydrous silicates
CHEMICAL COMPOSITION	Complex hydrous calcium magnesium silicates

SECTION II INGREDIENTS		% RANGE
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SECTION III PHYSICAL DATA			
COLOR	White	SPECIFIC GRAVITY (HD-11)	±2.7
APPEARANCE	Fibrous		
OTHER PROPERTIES			

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Serpentine		50 Mppcf
Quartz	30 mg./cu.m. ÷ % Quartz + 2	

SECTION V SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	
Avoid breathing dust. Use respirator if TLV's exceeded.	

DATE: May 1, 1975

OVER 1 ON (FURTHER INFORMATION)

This information is furnished solely for the purpose of disclosure regarding MSDS forms and shall not be used or relied upon by any person for any other purpose.

Date: 10-15-79
 Case: 1411620-1-0-0285
 Department: VORDEL B.I.F.
 Reporter: Mark L. Usher
 Chem Reporting Services, Inc.
 888.330.1371

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John W. Kelse
Corporate Industrial Hygienist
May 4, 1992



Mineralogical Features Associated with Cytotoxic and Proliferative Effects of Fibrous Talc and Asbestos on Rodent Tracheal Epithelial and Pleural Mesothelial Cells

Ann G. Wylie,* H. Catherine W. Skinner,† Joanne Marsh,‡ Howard Snyder,† Carmala Garziona,‡
Damian Hodgkinson,* Roberta Winters,* and Brooke T. Mossman,‡

*Laboratory for Mineral Deposits Research, Department of Geology, University of Maryland, College Park, Maryland 20742; †Department of Geology and Geophysics, Yale University, New Haven, Connecticut 06511-8130; and ‡Department of Pathology, University of Vermont College of Medicine, Burlington, Vermont 05405

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Mineralogical Features Associated with Cytotoxic and Proliferative Effects of Fibrous Talc and Asbestos on Rodent Tracheal Epithelial and Pleural Mesothelial Cells. Wylie, A. G., Skinner, H. C. W., Marsh, J., Snyder, H., Garziona, C., Hodgkinson, D., Winters, R., and Mossman, B. T. (1997). *Toxicol. Appl. Pharmacol.* 147, 000-000.

Inhalation of asbestos fibers causes cell damage and increases in cell proliferation in various cell types of the lung and pleura *in vivo*. By using a colony-forming efficiency (CFE) assay, the cytotoxicity and proliferative potential of three mineral samples containing various proportions of fibrous talc were compared to NIEHS samples of crocidolite and chrysotile asbestos in cell types giving rise to tracheobronchial carcinomas, i.e., hamster tracheal epithelial (HTE) cells, and mesotheliomas, i.e., rat pleural mesothelial (RPM) cells. Characterization of mineralogical composition, surface area, and size distributions as well as proportions of fibers in all mineral samples allowed examination of data by various dose parameters including equal weight concentrations, numbers of fibers $>5 \mu\text{m}$ in length, and equivalent surface areas. Exposure to samples of asbestos caused increased numbers of colonies of HTE cells, an indication of proliferative potential, but fibrous talc did not. RPMs did not exhibit increased CFE in response to either asbestos or talc samples. Decreased numbers of colonies, an indication of cytotoxicity, were observed in both cell types and were more striking at lower weight concentrations of asbestos in comparison to talc samples. However, all samples of fibrous minerals produced comparable dose-response effects when dose was measured as numbers of fibers greater than $5 \mu\text{m}$ or surface area. The unique proliferative response of HTE cells to asbestos could not be explained by differences in fiber dimensions or surface areas, indicating an important role of mineralogical composition rather than size of fibers. © 1997 Academic Press

Occupational exposures to mineral fibers such as asbestos are associated with the development of pulmonary and pleural disease (Mossman and Gee, 1989; Mossman *et al.*, 1990; Guthrie and Mossman, 1993). Although various types of asbestos are biologically active in a number of *in vivo* and *in vitro*

bioassays, the properties of fibers important in reactivity with cells and tissues are unclear (Guthrie and Mossman, 1993; Mossman and Begin, 1989). It is generally agreed that length and width or aspect ratio are important variables for predicting the carcinogenicity and fibrogenicity of durable fibers (Davis *et al.*, 1986; Stanton *et al.*, 1981). However, the mineralogical composition and structural features of fibers and particles may also play a role in pathogenicity (Oehlert, 1991; Wylie *et al.*, 1987; Skinner *et al.*, 1988; Wylie *et al.*, 1993). These properties govern surface properties as well as durability of fibers in the lungs and pleura, factors that may be critical in the development of lung cancer and mesothelioma (Mossman and Gee, 1989; Mossman *et al.*, 1990; Guthrie and Mossman, 1993; Health Effects Institute, 1991).

Asbestos types, in contrast to a number of other fibrous and nonfibrous nonpathogenic materials, cause both cell proliferation and cytotoxicity in a dose-related fashion in several cell types (reviewed in Health Effects Institute, 1991). These biological responses may reflect the disease potential of various fiber types, as cell injury and hyperplasia are early events in rodent inhalation models of asbestosis and carcinogenesis (Mossman and Gee, 1989; Mossman *et al.*, 1990; Guthrie and Mossman, 1993; Health Effects Institute, 1991). In this study, we compared the cytotoxicity and proliferative potential of three New York talc samples to crocidolite and chrysotile asbestos in cell types affected in asbestos-induced tumors, i.e., hamster tracheal epithelial (HTE) cells, which can give rise to tracheobronchial neoplasms, and rat pleural mesothelial (RPM) cells, cells affected in the development of mesothelioma. In studies here, we used an established colony-forming efficiency (CFE) assay that documents both increases in cell proliferation and cell survival, as measured by increases in numbers of colonies, at low concentrations of minerals, and growth inhibition, as indicated by decreases in colony formation or size at high concentration of minerals, to compare responses to well-characterized samples of asbestos and fibrous talc in HTE and RPM cells. An additional advantage of this bioassay is that it employs cells from the lung and pleura and measures responses

to minerals over a 7-day time period of exposure as opposed to shorter time frames used (<24 hr) in most other *in vitro* assays in the literature (reviewed in Health Effects Institute, 1991). In the CFE assay, nonfibrous particles such as glass beads are proliferative or cytotoxic to HTE cells at ≥ 100 -fold concentrations when compared to asbestos at equal weight concentrations (Mossman and Sesko, 1990; Marsh *et al.*, 1994; Timblin *et al.*, 1995).

The three talc samples used here differ somewhat in their mineralogy, both in the types of minerals and in their relative abundances. However, all three contain varying proportions of fibrous talc which is similar dimensionally and morphologically to asbestos. We thus hypothesized that factors other than length and width of fibers would govern the reactivity of minerals in the *in vitro* assays used here. The experiments were undertaken to explore the questions: (1) Do fibrous talc and asbestos fibers cause similar biological responses in epithelial and mesothelial cells? (2) Is reactivity to mineral samples dose related? and (3) Are responses in various cell types related only to numbers and sizes of fibers in each preparation or does mineralogy, including chemical composition, surface properties, and mineral structure, play a role?

METHODS

Sources of Mineral Samples

Three samples from the New York State Governor Mining District, FD14, S157, and CPS183, and two asbestos samples, NIEHS chrysotile (Plasidest 20) and NIEHS crocidolite, were used in this study. The asbestos samples are essentially monomineralic and have been studied in detail (Campbell *et al.*, 1980). The general geology and mineralogy of the Governor District are described by Engle (1962) and Ross *et al.* (1968). FD14 is a commercial talc, S157 was once produced from this district as a fiber talc product, and CPS183 is a laboratory separated concentrate of fibrous talc. Fibrous talc is a general term that includes fibers composed entirely of the mineral talc as well as fibers that are composed of both talc and amphibole (probably anthophyllite) intergrown on a submicrometer scale (Stemple and Brindley, 1969; Vitz, 1985). The index of refraction of the fibers increases as the amphibole component increases (Veblen and Wylie, 1993). Fibrous talc is present in trace amounts in many commercial talc deposits, but it is a major component of most talc products from the Governor Talc District. All samples were characterized by scanning electron microscopy (SEM), optical microscopy (OM), and x-ray diffraction (XRD); CPS183 and NIEHS crocidolite were also studied by TEM as this technique is more sensitive for the detection of smaller, thinner particles.

Characterization of Minerals

The samples were studied by XRD and SEM at Yale University in order to establish the overall mineralogy, mineral abundances, and the number of fibers per microgram. They were examined by OM at the Laboratory for Mineral Deposits Research, University of Maryland. In order to determine the mineralogy, mineral abundances, and number of fibers per microgram of the samples, and by transmission electron microscopy (TEM) at AMA Laboratories, Beltsville, Maryland (under the direction of the Laboratory for Mineral Deposits Research) for the purpose of determining the detailed size distribution of fibrous talc and especially to examine the content of fibers 0.1 μm in width and smaller. The protocols followed in each laboratory are described below. For purposes of this paper, "particles" refers to particles of all aspect ratios. "Fiber" refers to particles that have an aspect ratio (length/width) of at least

five and to bundles of such fibers. "Fibers" (unless otherwise specified) include true mineral fibers (very high aspect ratio particles whose shapes were retained during mineral formation) as well as elongated cleavage fragments (shape produced during comminution).

X-ray diffraction. Samples mixed with an internal standard and spun to minimize preferred orientation were analyzed by using a SCITXG Pad V automated diffractometer. Identification of minerals was based on comparison of the X-ray pattern with standard patterns.

Optical microscopy. A known weight of sample was dispersed in water and then passed through a 22-gauge needle 8X and sonicated 4 min before mounting on slides. A drop of immersion oil $n_D = 1.598$ was placed over the dried sample. For all samples except chrysotile ($N = 2$ mixtures), at least five separate mixtures were prepared from each sample and at least two slides were made from each mixture. One hundred fibers were counted from each slide. All fibers longer than 5 μm and all particles that appeared to be composed of bundles of fibers were categorized by length and width and by index of refraction according to the following characteristics: all indices of refraction greater than 1.598 (amphibole), index of refraction parallel to elongation greater than 1.598 and index of refraction perpendicular to elongation less than 1.598 (fibers composed of talc and a significant amount of amphibole, and referred to as talc/amphibole), or all indices of refraction less than 1.598 (fibers dominated by the mineral talc). The number of fibers per microgram was calculated by assuming that particle distributions were representative and directly proportional to the area of the filter.

Scanning electron microscopy. A known weight of sample was dispersed in water, passed through a 22-gauge syringe needle 8X, and deposited onto a 0.45- μm cellulose filter. Replicate preparations were made for each sample and analyzed independently to test for homogeneity. The filters were examined with a JEOL IXA 8600 SEM equipped with EDXA. Particles that were at least 1 μm in length and 0.12 μm in width could be detected. Mineral identification was automated by predetermining the relative percentages of Na, Ca, K, Mg, Al, Si, Mn, and Fe in mineral standards and comparing them to the elemental compositions determined on the sample particles (Petruk and Skinner, 1997). The number of particles per microgram of sample was calculated by assuming that the particle distributions were representative and directly proportional to the area of the filter.

Transmission electron microscopy. A known weight of sample was dispersed in water, flushed with a 22-gauge syringe needle 8X, and then sonicated for 4 min. The solutions were then diluted and filtered through a 0.22- μm cellulose acetate filter. The samples were analyzed on a JEOL 100 CX II electron microscope at 19,000X magnification. Over 300 fibers from each sample were measured.

Surface area measurements. All five samples were tested for single point N_2 -BET surface areas by J. W. Anderson of R. T. Vanderbilt Corporation. The tests were repeated 4X for each sample. Data were expressed as square millimeters per gram of sample.

Cell culture and addition of fibers to bioassay. A HTE cell line previously isolated and characterized by Mossman *et al.* (1980) was maintained at passages from 38 to 50 and cultured routinely in Ham's F12 medium (Gibco, Grand Island, NY) containing penicillin and streptomycin (both at 100 U/ml) and 10% newborn calf serum (Gibco). This cell line is epithelial and possesses features, i.e., mucin secretion and cilia, of differentiated epithelial cells. Primary cultures of RPM cells were isolated by scraping the parietal pleural of two weanling male Fischer 344 rats (Janssen *et al.*, 1994) and were maintained for up to eight passages in Ham's F12-DMEM containing antibiotics (as above), 10% fetal calf serum (Gibco), hydrocortisone (100 ng/ml), insulin (2.5 $\mu\text{g/ml}$), transferrin (2.5 $\mu\text{g/ml}$), and selenium (2.5 ng/ml).

Mineral samples presterilized in a dry oven overnight at 130°C were added to Hanks' balanced salt solution (HBSS) before duration 8X through a 22-gauge syringe needle and addition to cultures in 2% serum-containing medium.

A CFE assay was also used as a sensitive test for cytotoxicity and cell proliferation [Mossman and Sesko, 1990; Marsh *et al.*, 1994; Timblin *et al.*, 1995]. HTE (400 cells/60 mm dish) and RPM (2000/60 mm dish) were plated for 24 hr before addition of dusts to medium containing 2% serum as described

TABLE 1
Characterization of Talc and Asbestos Samples

Sample	Mineralogy (% of sample)		
	Mineral composition		
FD14	Talc (37), tremolite (35), serpentine (15), other (<1), unknowns (12) ^a		
S157	Talc (60), tremolite (12), unknown (21), other (4), anthophyllite (3), quartz (1)		
CPS183	Talc (50), quartz (12), unknown (28), tremolite (4), other (4), anthophyllite (3)		
NIEHS crocidolite	Riebeckite (100)		
NIEHS chrysotile	Chrysotile (100)		
	Mineralogy of fibers > 5 μm		
FD14	Talc (62), amphibole (24), talc/amphibole (14)		
S157	Talc (84), amphibole (11), talc/amphibole (5)		
CPS183	Talc (99), amphibole (1), talc/amphibole (<1)		
NIEHS crocidolite	Crocidolite (100)		
NIEHS chrysotile	Chrysotile (100)		
	Surface area (mm ² /μm)	Fibers/μg	Fibers ≥ 5 μm/μg
	Surface area and fibers/μg ^b		
FD14	6.2 ± 0.2 ^c	2.5 × 10 ⁹	0.8 × 10 ⁹
S157	4.9 ± 0.2	1.1 × 10 ⁹	4.8 × 10 ⁸
CPS183	4.9 ± 0.4	1.1 × 10 ⁹	9.2 × 10 ⁸
NIEHS crocidolite	10.3 ± 1.3	5.3 × 10 ⁹	3.8 × 10 ⁹
NIEHS chrysotile	25.4 ± 0.5	5.3 × 10 ⁹	3.4 × 10 ⁹

^a Primarily magnesium silicates (talc and talc/amphibole) with SEM/EDXA spectra too low for conclusive identification.

^b The most abundant amphibole is tremolite. A very small amount of anthophyllite may be included.

^c Data are based on SEM measurements. Chrysotile values are low due to its poor visibility on the SEM. Standard error of measurement is estimated to be 20%.

^d Mean ± standard error of measurement of four individual measurements per group.

above. Minerals were then added, and untreated and mineral-exposed cultures were maintained for 7 days before examination. At this time, plates were rinsed in HBSS and fixed in methanol and stained with 10% Giemsa stain, and total colonies greater than 50 cells per plate were counted by using a blind code (Mossman and Seska, 1990; Marsh *et al.*, 1994; Timblin *et al.*, 1995). Duplicate experiments were performed for each bioassay with $N = 3-4$ dishes per group per experiment. Statistical analyses of all data were performed by using analysis of variance and trend analysis.

RESULTS

Mineralogy

The overall mineralogical composition, the mineral composition of the fibers, the number of fibers per microgram, and the surface area measurement of the samples used in our studies are given in Table 1. FD14 is composed of platy talc, true mineral fibers of talc and talc/amphibole, cleavage fragments of tremolite, platy serpentine (chrysotile absent), and trace

amounts of other minerals. Fibers make up approximately 11% of the particles identified by SEM. They are mostly talc followed by amphibole cleavage fragments and talc/amphibole. S157 is composed of platy talc, true mineral fibers of talc and talc/amphibole, tremolite and anthophyllite cleavage fragments, and quartz. Fibers make up about 37% of the particles, and they are mostly talc with smaller amounts of amphibole cleavage fragments and talc/amphibole. CPS183 is composed of true mineral fibers of talc and a very small amount of talc/amphibole, cleavage fragments of tremolite and anthophyllite, and quartz. Fifty-nine percent of the particles are fibers, and they are almost all fibers of talc. The three talc samples represent a range in the amount of fiber present (both in portion of sample and in number of fibers/μg) and in the mineralogy of the fibrous portion, primarily in the content of amphibole both as a separate phase and as a component of fibrous talc. NIEHS crocidolite and NIEHS chrysotile are essentially monomineralic populations of true mineral fibers of riebeckite and chrysotile, respectively. The very small widths result in many more fibers per microgram than are found in the talc samples.

Surface Area

The specific surface areas (mm²/g) of talc samples are smaller than asbestos samples and roughly comparable to each other. The larger surface area of FD14 compared to the other talc samples is probably due to the presence of more abundant small platy talc particles that have two almost equivalent dimensions and one that is very much smaller, producing a large surface area/mass ratio. The greater surface area of chrysotile with respect to crocidolite can be attributed to its lower density and small fibril width and perhaps in part to the straw-like structure of the chrysotile fibers if N₂ penetrates the hollow center of the chrysotile tubes. Since the surface reactivity of different minerals affects the surface adsorption of N₂, some of the variation among samples may be related to mineralogy as well.

Size Distributions of Fibers in Mineral Preparations

Figure 1 shows the frequency of length and width for all fibers in units of fibers/microgram and the frequency of width for only those fibers greater than or equal to 5 μm in length as established by SEM and OM. The abundance of narrow crocidolite fibers accounts for the fact that the NIEHS crocidolite contains more fibers per microgram than any other sample (Table 1). CPS183 and S157 are very similar in many respects. They are composed of similar numbers of fibers per microgram, but there are slightly more longer fibers and fewer long, wide fibers in CPS183. FD14 contains the smallest number of fibers per microgram and the highest proportion of the widest fibers. In general, talc fibers are narrower than amphibole cleavage fragments and the differences in the sizes of the fibers among the talc samples in part reflect the differences in the abundance of amphibole cleavage fragments vs fibrous talc. As

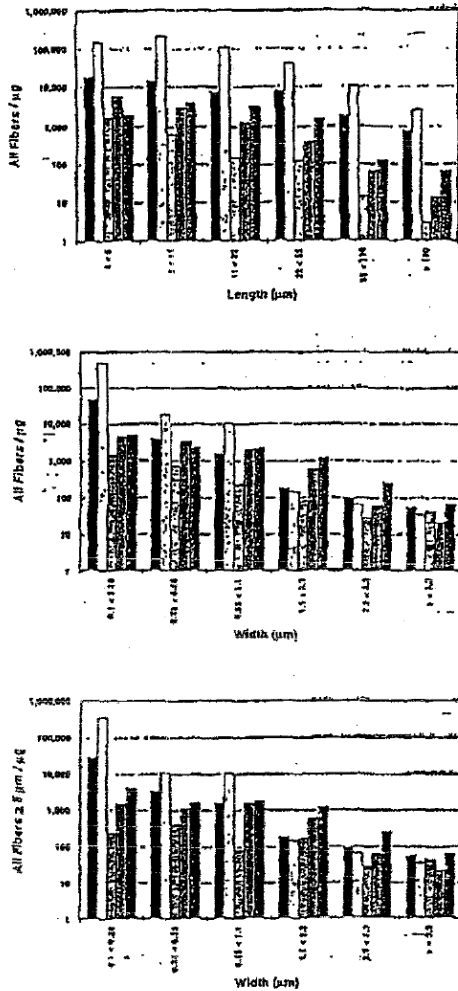


FIG. 1. The frequencies of length and width in units of fibers per microgram are shown for the three talc samples and two NIEHS asbestos samples. Also shown is the frequency of width (fibers/μg) for those fibers longer than 5 μm. (W) Chrysotile; (C) crocidolite; (U) FD14; (□) S157; (■) CPS183.

the amphibole content increases from CPS183 to S157 to FD14, the total fiber content goes down, and, on average, the fibers decrease in length and increase in width. No distinction between the size distributions of talc and talc/amphibole fibers were documented.

Table 2 gives the percentage of fibers in length-width categories

for CPS183 and NIEHS crocidolite asbestos as measured by TEM. These data enable a direct comparison between the dimensions of fibrous talc and crocidolite that is not restricted by the 0.1-μm width limit in the SEM data. These two true mineral fiber populations are quite similar, differing most notably in the higher proportion of wide (>0.5 μm) fibers and slightly lower proportion of long (>20 μm) fibers in fibrous talc.

CFE Assays

Combined data from duplicate experiments with HTE and RPM cells are presented in Figs. 2 and 3, respectively. CFE data are expressed as a ratio of the number of colonies in mineral-exposed cultures in comparison to control colonies × 100 at various concentrations of minerals on a weight basis (μg/cm²) as is typically found in the literature (Mossman *et al.*, 1990; Health Effects Institute, 1991). In HTE cells, both asbestos types showed an elevated number of colonies (*p* < 0.05) at lowest concentrations indicating increased cell proliferation and/or survival in response to asbestos fibers and confirming earlier studies (Mossman and Sesko, 1990; Marsh *et al.*, 1994). Significant decreases (*p* < 0.05) in CFE, an indication of toxicity or growth inhibition, were observed at concentrations of asbestos of 0.5 μg/cm² and greater. In contrast, RPM cells did not exhibit proliferative effects in response to either asbestos type, but statistically significant (*p* < 0.05) decreases in CFE were observed at concentrations of asbestos fibers greater than 0.05 μg/cm². In both cell types, the talc samples were less cytotoxic than asbestos. CPS183 was the most toxic talc sample, followed by S157 and FD14. In contrast to the other mineral samples, S157 and FD14 did not exhibit significant linear trends in cytotoxicity with increasing dosages in HTE cells.

Figures 4 and 5 show the same cellular response data as Figs. 2 and 3, but dose is calculated based on the number of

TABLE 2
Percentage of Fibers by Length and Width (μm) as Determined by Transmission Electron Microscopy

Length	Width: 0.01-0.1	>0.1-0.25	>0.25-0.5	≥0.5-1.0	>1.0
CPS183					
<1	2.9	1.6	—	—	—
>1-2	4.1	14.1	0.5	—	—
>2-3	2.5	22.0	6.8	1.6	—
>5-10	0.9	9.8	4.3	4.5	0.5
>10-20	0.5	7.3	3.2	2.3	2.5
>20-50	0.2	1.8	2.7	1.4	2.0
>50-100	—	—	—	—	0.2
NIEHS crocidolite					
<1	0.3	0.3	—	—	—
>1-2	1.1	9.5	0.3	—	—
>2-5	4.6	31.6	2.9	—	—
>5-10	1.4	18.1	3.7	0.6	—
>10-20	1.7	10.7	3.2	0.3	—
>20-30	0.6	2.9	1.4	1.1	—
>30-100	—	1.7	1.4	0.6	—

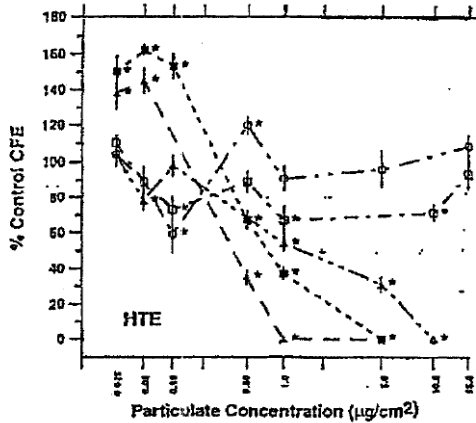


FIG. 2. Colony-forming efficiency (CFE) of HTE cells at various weight concentrations of samples. Standard error in CFE is indicated on symbol. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (C) FD14; (□) S157; (Δ) CPS183.

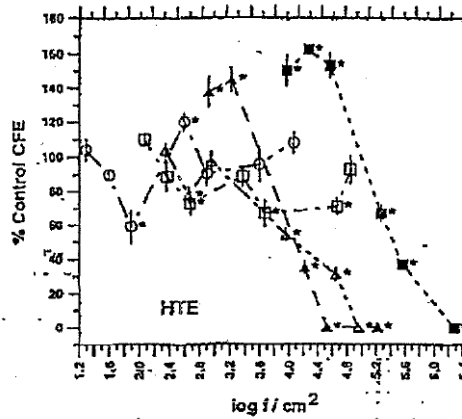


FIG. 4. Colony-forming efficiency (CFE) assays in HTE cells expressed as a function of fibers $\geq 5 \mu\text{m}$ in length per cm^2 (f/cm^2). The symbol width is equal to or greater than estimated error. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (C) FD14; (□) S157; (Δ) CPS183.

fibers greater than or equal to $5 \mu\text{m}/\text{cm}^2$ (fibers/ cm^2) rather than total sample weight per square centimeter. The data are taken from the SEM characterizations, but the comparisons would be the same if OM or TEM data were used. Doses of total sample per square centimeter administered to the cultures covered such a wide range that there were equivalent doses of fibers per square centimeter in almost all length/width categories for all samples. Therefore, even though crocidolite and

chrysotile contained many more fibers per microgram than the talc samples, the same number of fibers per centimeter were administered in low doses of asbestos and high doses of talc ($\mu\text{g}/\text{cm}^2$).

As shown in Fig. 4, the enhanced responses of HTE cells to asbestos appear to be a function of mineralogy and not fiber

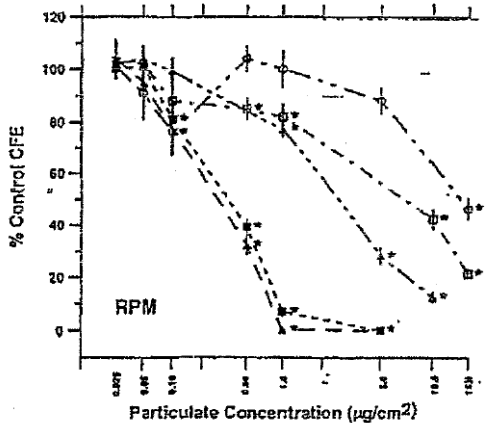


FIG. 3. Colony-forming efficiency (CFE) of RPM cells at various weight concentrations of samples. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (C) FD14; (□) S157; (Δ) CPS183.

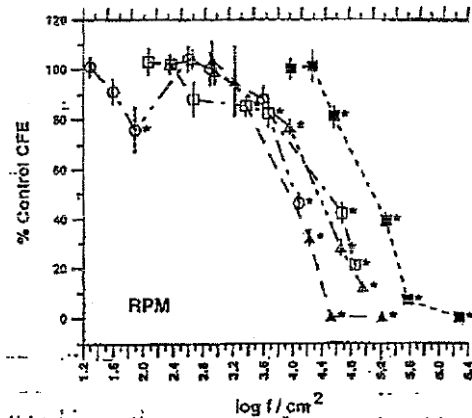


FIG. 5. Colony-forming efficiency (CFE) assays in RPM cells expressed as a function of fibers $\geq 5 \mu\text{m}$ in length and length/width $\geq 5:1$ per cm^2 (f/cm^2). The symbol width is equal to or greater than estimated error. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (A) Chrysotile; (M) crocidolite; (C) FD14; (□) S157; (Δ) CPS183.

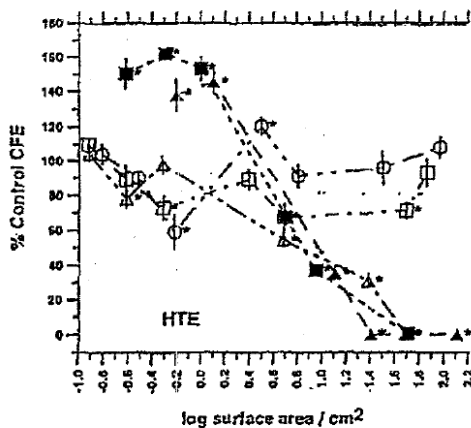


FIG. 6. Colony-forming efficiency (CFE) assays in HTE cells expressed as a function of surface areas of mineral samples (mm^2/cm^2). The symbol width is equal to or greater than one standard error. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (▲) Chrysotile; (■) crocidolite; (○) FD14; (□) S157; (△) CPS183.

concentration. The same concentrations of fibers greater than 5 μm of chrysotile and crocidolite that cause proliferation in HTE cells result in no effects when comparable concentrations of FD14 fibers are used, insignificant cytotoxicity with S157 fibers, and significant cytotoxicity with CPS183 fibers. It therefore seems likely that characteristics of the samples that are related to their mineralogy contribute to proliferation and/or cell growth inhibition.

As shown in Fig. 5, the response of RPM cells appears to be independent of the mineralogy of the samples. Neglecting the slight cytotoxic response of FD14 at low concentrations, the minimum concentrations of fibers per square centimeter necessary to cause significant decreases in CFE is between 10^3 and 10^4 fibers per square centimeter for all samples. In changing the size definition of a fiber (e.g., $>8, \leq 0.25 \mu\text{m}$; $>20 \mu\text{m}$, all widths; all lengths, $w < 0.28 \mu\text{m}$), we found that the effective dose changed but the relationships among the samples did not (data not shown).

Figures 6 and 7 show CFE data in HTE and RPM cells, respectively, as a function of surface area. It is evident that surface area per se cannot explain cellular responses to minerals in HTE or RPM cells. Despite the fact that crocidolite and chrysotile have much larger surface areas per microgram, the range in the amount of sample administered resulted in similar doses between the asbestos and talc samples.

DISCUSSION

Asbestos is a term applied to a group of minerals that possess similar physical properties because of their habit of growth. However, different types of asbestos differ in their

mineralogy and fiber size, which in turn may vary in preparations obtained from different geographic locations and sometimes even from the same locality (Guthrie and Mossman, 1993). The two most widely studied types of asbestos are the serpentine mineral chrysotile ($\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$), the most common type of asbestos in the Northern hemisphere and in commercial usage historically, and the amphibole riebeckite, crocidolite ($\text{Na}_2\text{Fe}_3^{2+}\text{Fe}_2^{3+}\text{Si}_8\text{O}_{22}(\text{OH})_2$), a high-iron-containing asbestos mined in parts of South Africa and Western Australia. Although crocidolite is implicated as more potent in the induction of mesothelioma, both chrysotile and crocidolite are linked occupationally to the development of lung cancer and asbestosis (Mossman and Gee, 1989; Mossman *et al.*, 1990, 1996; Guthrie and Mossman, 1993; Health Effects Institute, 1991).

How asbestos causes lung disease is uncertain, but acute toxicity, measured by a variety of techniques which have detected increases in membrane permeability, necrosis, release of oxygen-free radicals, exfoliation, and cell death (reviewed in Mossman and Begin, 1989) has been observed in a variety of cells exposed to high concentrations of fibers. At lower concentrations, both crocidolite and chrysotile asbestos cause cell proliferation in HTE cells and organ cultures, phenomena not observed with various synthetic fibers or nonfibrous analogs of asbestos (Marsh and Mossman, 1988; Woodworth *et al.*, 1983). These biological responses to asbestos may be important in the induction of neoplasms as cell injury may cause exfoliation and compensatory hyperplasia of surrounding cell types which are more sensitive to genetic damage. As suggested by Ames and Gold (1990), mitogenesis may facilitate mutagenesis and contribute to tumor development. In addition, cell proliferation is

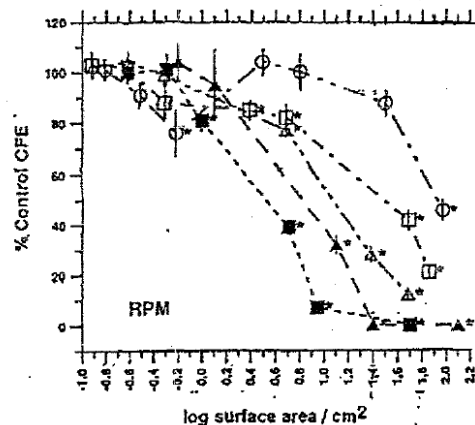


FIG. 7. Colony-forming efficiency (CFE) assays in RPM cells expressed as a function of surface areas of mineral samples (mm^2/cm^2). The symbol width is equal to or greater than one standard error. The standard error in CFE is indicated on the symbols. * $p < 0.05$ in comparison to untreated controls. (▲) Chrysotile; (■) crocidolite; (○) FD14; (□) S157; (△) CPS183.

an important component of tumor promotion and progression, and asbestos is a documented tumor promoter in epithelial cells of the respiratory tract (reviewed in Mossman *et al.*, 1990, 1996; Health Effects Institute, 1991).

Our results with asbestos samples are interesting in that HTE cells are unique in exhibiting increased CFE, in comparison to untreated and talc-exposed cells. Moreover, both cell types were more sensitive to the cytotoxic effects of equal weight dose amounts of asbestos in comparison to talc. The lack of response of RPM cells to the proliferative effects of asbestos may reflect the fact that single cells, as opposed to confluent monolayers (Marsh and Mossman, 1988; Woodworth *et al.*, 1983), were exposed to fibers here. For example, when added to confluent, growth-arrested RPM cells, crocidolite causes cell proliferation as measured by dual fluorescence techniques with an antibody to 5-bromodeoxyuridine (BrdU) and the DNA dye YOYO (Goldberg *et al.*, 1997). Moreover, increased numbers of both pleural mesothelial and bronchial epithelial cells incorporating BrdU are observed after inhalation of NIEHS crocidolite or chrysotile by rats (Berube *et al.*, 1996). As suggested by Gerwin *et al.* (1987), mesothelial cells may require growth factors, either produced endogenously or produced by other cell types, for proliferative responses to asbestos, and the small numbers of cells used in the CFE bioassay may not be sufficient for amounts of cytokines needed here.

Our experiments also show that fibrous talc does not cause proliferation of HTE cells or cytotoxicity equivalent to asbestos in either cell type despite the fact that talc samples contain durable mineral fibers with dimensions similar to asbestos. These results are consistent with the findings of Stanton *et al.* (1981) who found no significant increases in pleural sarcomas in rats after implantation of materials containing fibrous talc. Moreover, Smith and colleagues report no sarcomas in hamsters after implantation of FD14 (1979), and other rodent studies in which talcs of various types have been administered by inhalation or injection also have not shown an increased incidence of mesotheliomas or carcinomas (Stenback and Rowland, 1978; Wehner *et al.*, 1977). Epidemiological studies also indicate that talc in a number of occupational settings is less pathogenic than asbestos in the development of lung cancer, and the reports indicating excess lung cancer mortality may underestimate smoking habits, an important confounder, and exposure to commercial asbestos (reviewed in IARC, 1987a,b; Ross *et al.*, 1993). In essence, data have not proven that talc is a human carcinogen, as small numbers of cohorts have been studied, smoking histories are poorly documented, and workers were often exposed to other dusts, including asbestos, that may cause lung disease.

Increases in cytotoxicity over time with CPS183, as opposed to the other talc samples, in both cell types also suggest the importance of mineralogic differences as the size distributions of CPS183 and S157 are similar. Since CPS183 fibers are mainly talc, while S157 contains more talc/amphibole and amphibole, mineralogical variability may affect the responses of cells to cytotoxic effects of talc. Nonfibrous particles such as

quartz may also play a role in cytotoxicity of the talc samples since CPS183 has a higher number of quartz particles, a mineral known to be cytolytic (Mossman and Begin, 1989).

Data presented here lend increased uncertainty to the concept that long thin fibers [length $> 8 \mu\text{m}$, width $< 0.25 \mu\text{m}$, i.e., the Stanton hypothesis (Stanton *et al.*, 1981)] are the predominant factors predicting tumorigenicity and fibrogenicity (Mossman *et al.*, 1990; Health Effects Institute, 1991). In his elegant and comprehensive studies, Stanton and colleagues implanted two samples of fibrous talc (No. 6 and No. 7 samples) into rats. One of us (AW) examined talc No. 6 and found it to be similar in mineralogy, size distribution, and morphology to FD14, and little is known about No. 7 except that it was obtained from the Gouverneur District. Neither talc produced significant excesses in pleural sarcomas despite the fact that the dose of fibers $> 8 \mu\text{m}$ in length and $< 0.25 \mu\text{m}$ in width in sample No. 6 was large enough to predict a tumor probability of $> 50\%$.

In summary, intrapleural injection studies in rats, epidemiologic investigations, and our *in vitro* work with fibrous talc here suggest caution in generalizing that durable fibers $> 5 \mu\text{m}$ or with aspect ratios approximating Stanton criteria are always more bioreactive and pathogenic. Our work is significant in that it supports reanalysis of the Stanton data by Wylie *et al.* (1987) and others (Oehlert, 1991; Nolan and Langer, 1993) and provides data implicating the importance of mineral type, rather than fiber length per se, in determining cellular outcomes associated with pathogenicity of mineral dusts.

ACKNOWLEDGMENTS

Work was supported in part by a grant from NIEHS (R01ES06499) to BTM and from R. T. Vanderbilt Company to AGW and CS. We thank Dr. Cynthia Timblin for her input into interpretation of CFE data.

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Wylie, A. G., Mossman, B. T., et al - 1997 ⁽⁵⁰⁾

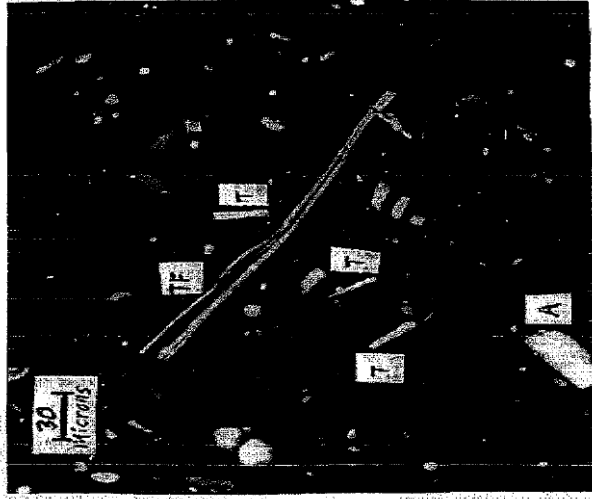
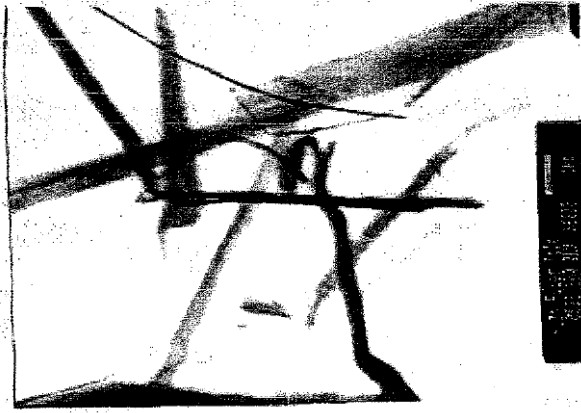
Mineralogical Features Associated with Cytotoxic and Proliferative
Effects of Fibrous Talc and Asbestos on Rodent Tracheal
Epithelial and Pleural Mesothelial Cells

"fibrous talc does not cause proliferation of HTE cells or cytotoxicity equivalent to asbestos in either cell type despite the fact that talc samples contain durable mineral fibers with dimensions similar to asbestos. These results are consistent with the findings of Stanton, et al (1981) who found no significant increases in pleural sarcomas in rats after implantation of minerals containing fibrous talc."

VANDERBILT TALC COMPOSITION
The talc & mixed fiber error source

	<u>Weight %</u>
Talc:	20 to 40%
<i>(Talc & Talc/amphibole fiber = 0.5 to 5% in whole product)</i>	
Tremolite (nonasbestiform):	40 to 60%
Serpentine (antigorite-lizardite):	15 to 30%
Anthophyllite (nonasbestiform):	1 to 5%
Quartz:	<1% (when detected at all)

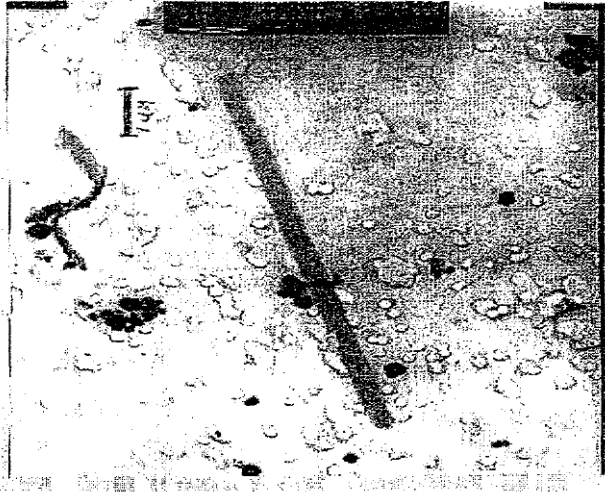
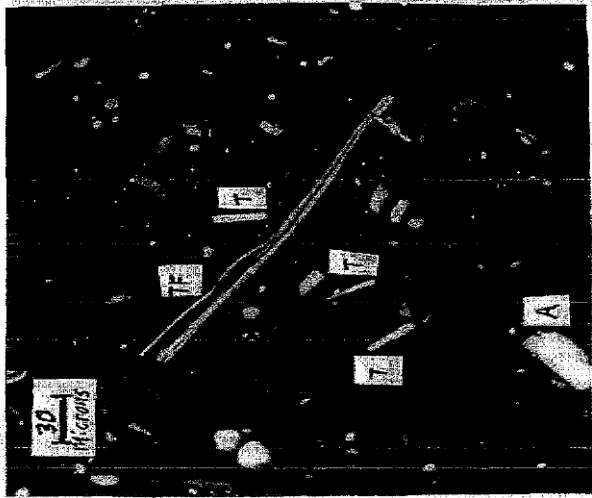
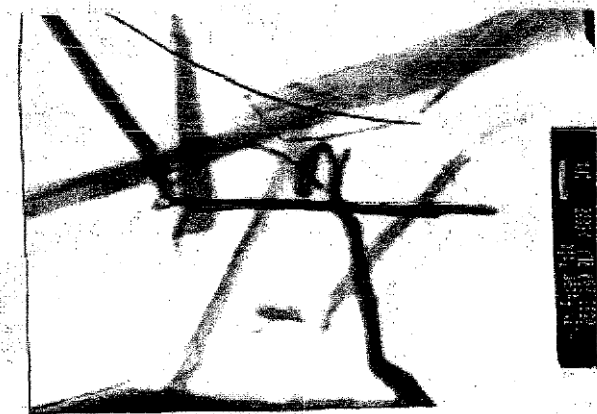
**Talc & mixed or transitional fiber
appear in several fiber forms**



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Talc & mixed or transitional fiber appear in several fiber forms





THE UNIVERSITY OF MARYLAND

COLLEGE PARK CAMPUS
Department of Geology

Dr. C.S. Thompson
R.T. Vanderbilt Company, Inc.
30 Winfield Street
Norwalk, Connecticut 06852

July 28, 1989

Dear Dr. Thompson, *Jim*

I have examined the sample of Mouldene(S-158) which you sent to me on July 19, 1989. The material consists primarily of fibrous talc with small amounts of tremolite, anthophyllite, carbonate, quartz, platy talc and feldspar.

The fibrous talc occurs in fiber bundles with splayed ends and as what appear to be individual fibers. The indices of refraction of this material are highly variable. Parallel to elongation, γ ranges from 1.594 to 1.576; however, most of the fibers and fiber bundles have γ 's between 1.582 and 1.588. Perpendicular to elongation the indices of refraction are much more variable, ranging from 1.536 to 1.578. These values represent the range in α and β . In general, the more the fibers display the classical characteristics of asbestos, i.e., fiber bundles with splayed ends, small fibril width, curved fibers, etc., the lower are the indices of refraction within the ranges given above.

The anthophyllite does not display asbestiform characteristics. It is most easily recognized by its peculiar striped extinction pattern which also appears to be reflected in plain light as variable indices of refraction. These characteristics might be explained as an intergrowth of anthophyllite and talc. γ for anthophyllite is always greater than 1.600 while α was measured as 1.596.

Tremolite, like anthophyllite, does not display the characteristics of asbestos. It is generally blocky, but an occasional particle has an aspect ratio in excess of 10:1. α for tremolite was measured as 1.600, and γ for tremolite is greater than 1.600.

Tremolite and anthophyllite are about equally abundant, Together they total 5-10% of the sample. A few percent of the sample is carbonate, a little less is quartz and feldspar occurs only in trace quantities.

If you have any questions, please let me know.

Sincerely yours,

Ann G. Wylie

Transitional Fibers: miner but observable

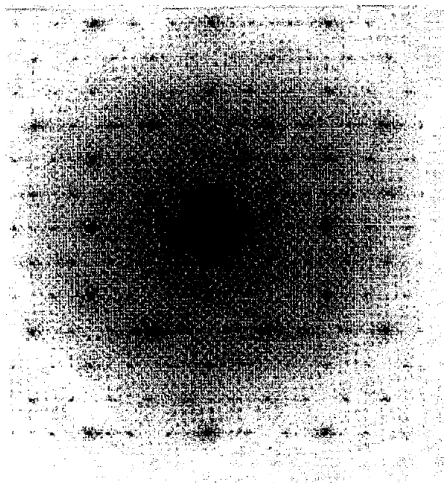
Light and dark areas on a transitional fiber – different mineral domains – talc and amphibole



Analytical Tools to ID Transitionals

Diffraction Pattern

Triplets: forbidden reflection
for pure anthophyllite



Polarized Light Microscopy

Refractive index: above talc
below amphibole

<u>Mineral</u>	<u>α, RI</u>	<u>γ, RI</u>
Talc	< 1.598	\leq 1.598
Transitional	< 1.598	> 1.598
Amphibole	\geq 1.598	> 1.598

INTER-OFFICE MEMORANDUM

To: P. Vanderbilt



Date: September 23, 1987

From: C. S. Thompson

B-FAME-3

Subject: Mouldene and Other International Talc Co. Fiber Products

The ore for Mouldene and all other fiber grades came from the No. 3 Mine in Talcville. These products were normally diluted with non-fibrous ores to maintain the desired oil/water absorption.

My early, and very preliminary, examination of the fibrous component of the fiber products by microscopic methods led me to the conclusion that the fibers were chrysotile since the optical properties are fairly similar and they bore a resemblance to some of the chrysotile I had worked with at Union Carbide (Coalings). This conclusion was also influenced by x-ray diffraction studies which showed the presence of a serpentine component in the ore (chrysotile, antigorite or lizardite) and the fact that I had never before seen talc in a fibrous habit.

Once the assets of ITC had been purchased and I had the opportunity to examine the ore and make concentrates of the fibrous component, optical (outside consultant) and x-ray diffraction studies made it clear that no chrysotile was present and that the fibers were predominately talc with a minor amphibole component. Optical examination indicated that, of the true fibers, approximately 1 in 20, had indices of refraction too high for talc and in the range of anthophyllite. Sometimes the fiber would have talc indices on one end grading to anthophyllite indices on the other, indicating some kind of hybrid or mixed mineral. Based on these observations it appeared that -5% of the fiber content was potentially anthophyllite and since the fiber products (Fiber 1, 2, 6N, Mouldene, etc.) contained between 20 to 60% fibers, I recommended that an asbestos label be carried by these products. A Mineral Safety Data Sheet (MSDS) was also issued listing these fibers as asbestiform. The listing in Section II of the ingredients in Mouldene and the others on the MSDS was incorrect and misleading. Instead of reading "Asbestiform Talc and/or asbestiform anthophyllite", the category should have been listed as "Asbestiform talc with trace to very minor amounts of asbestiform anthophyllite".

All these fiber products were discontinued by the end of 1976.

It was not until the late 1970's to mid-1980's when detailed studies were conducted using Transmission Electron Microscopy (TEM) and Selected Area Electron Diffraction (SAED) methods that we fully realized that the great majority of the fibers originally thought to be anthophyllite asbestos were in truth hybrid alteration minerals consisting of intimate intergrowths of talc and amphibole minerals (probably anthophyllite) generally referred to as "talcboles" or "biophyriboles". These are not classified as asbestos under any regulatory standard (see attached Bureau of Mines Publication RI 8923).

CST:lgc
attachment

WES000043

SIMILARITIES IN LUNG CANCER AND RESPIRATORY DISEASE MORTALITY OF VERMONT AND NEW YORK STATE TALC WORKERS

S.H. LAMM, M.D. • J.A. Starr, MSc

Consultants in Epidemiology and Occupational Health, Inc., Washington, DC 20007

ABSTRACT

The risks from malignant and non-malignant respiratory deaths of New York State and Vermont State talc workers with at least one year of employment have been compared for both miners and millers. The mortality patterns are similar. In both areas, the talc miners have a 4.5 fold risk of lung cancer, and the talc miners have no increased risk of lung cancer. In both areas, all workers appear to have an increased risk of non-infectious, non-neoplastic respiratory disease (NNRD) mortality, although only the Vermont millers show a statistically significantly elevated risk (7.9 fold). Thus, although the New York talc has been described as asbestiform talc and the Vermont talc as non-asbestiform talc, the mortality patterns of the workers appear to be inconsistent with that classification in that their lung cancer mortality rates are no different and only the Vermont talc millers show a significantly increased NNRD mortality.

INTRODUCTION

Studies of talc miners and millers in the New York and Vermont talc industry include analyses of mortality, morbidity, industrial hygiene, and mineralogy. Mineralogical differences between the two talcs have been highlighted. The upstate New York talc contains an elongated particulate not found in the Vermont talc that is considered by scientists at the National Institute for Occupational Safety and Health (NIOSH) as tremolitic asbestos and by scientists at the Bureau of Mines and at the company that owns the plant as true talc particulates and as prismatic non-asbestiform tremolite. NIOSH has called the New York State talc asbestiform talc and the Vermont talc non-asbestiform talc. Leaving the question of the mineralogical label of these particulates to the mineralogists, we have elected to examine the respiratory health outcomes of the employees at these two talc industries.

MATERIALS

The initial shaft of the New York State talc plant was sunk in 1947. Mining and milling operations started in 1948. The mortality experience (1947 through 1978) of all persons hired at the plant between 1947 and 1977 has been reported.¹ Mortality analysis was restricted to the 705 male employees (all caucasian). None of the 36 women employees had died of a respiratory condition. Sixty percent of the men worked at the plant for at least one year; twenty percent for two months to one year; and twenty percent for less than two months. Mortality analysis was reported separately for the 280 white male employees employed at the talc plant for less than one year and for the 425 white male employees employed for at least one year. That report¹ suggested that prior employment jobs accounted for the lung cancer rate.

In-plant job records and prior employment histories on the job applications were analyzed. Employees were classified from the inplant job records as miners (187 worked exclusively in the mine), millers (152 worked exclusively in the mill), and others (34 worked in both the mine and the mill, 11 worked neither in the mine or the mill, and 41 had uninformative records).

The cohort of white male employees of the Vermont talc industry was developed from the records of the Vermont State Health Department's annual radiographic survey of employees of the dusty trades, begun in 1937. Selevan et al. of the National Institute for Occupational Safety and Health (NIOSH) defined the Vermont talc study cohort² as all white males in the Vermont talc industry on or after January 1, 1940 with at least one year of talc employment prior to January 1, 1970. Individuals who had at least two radiographs in the file and who had worked for any of five talc companies in three geographic areas of Vermont were eligible for the study. Mortality follow-up was continued through 1975 of the 392 men determined to belong to the cohort.

Health Department and company records were scrutinized to determine their job assignments, and each cohort member was classified as a miner after having had one year of exposure in the mine and/or as a miller after having had one year of exposure in the mill. 225 workers were classified as miners; 163 workers were classified as millers (of whom 47 had also been classified as miners); and 51 were not classifiable.

METHODS

This report compares standardized mortality ratios (SMRs)

for malignant and non-malignant respiratory causes of death for miners and millers with at least one year of experience in the Upstate New York talc (said to be asbestiform) industry with those in the Vermont State talc (said to be non-asbestiform) industry. Comparison is reasonable, despite the differences in classification variables between the two studies.

RESULTS

The risks of lung cancer and of non-infectious, non-neoplastic respiratory disease (NNRD) for employees with at least one year in the mines or mills of New York State or Vermont State talc industries are presented, analyzed, and discussed below.

Respiratory Mortality of New York and Vermont Talc Workers

	Observed/Expected Ratios		Standardized Mortality Ratios	
	New York	Vermont	New York	Vermont
Lung Cancer				
Millers	1/1.41	2/1.96	0.71	1.02
Miners	5/1.15	5/1.09	4.60*	4.35*
Others	0/0.55	0/0.61	---	---
Total	6/3.11	7/3.66	1.92	1.91
NNRD				
Millers	2/0.74	7/0.89	2.70	7.87*
Miners	2/0.49	2/0.56	4.08	3.57
Others	2/0.38	2/0.34	5.26	5.88
Total	6/1.61	11/1.79	3.73*	6.15*

* - $p < 0.05$, two-tailed Poisson test

The risk of malignant disease of the lung (lung/respiratory cancer) is not increased for millers but is significantly increased (4.5 fold) in talc miners both in New York (4.60) and in Vermont (4.35). No difference in risk is seen between miners and millers of New York and of Vermont (Figure 1). These data are sufficiently strong to rule out with eighty percent confidence an underlying relative risk for New York miners vs. Vermont miners of 1.7 and with about ninety five percent certainty an underlying risk of greater than 2.0.



Figure 1. Respiratory or lung cancer mortality risk for miners and millers of New York State and Vermont State talc.

The risk of non-malignant respiratory disease (excluding pneumonia and influenza), i.e., NNRD has a significantly increased risk (almost eight-fold) for Vermont talc millers but not for New York talc millers (risk of 2.7, not significant). The risks for NNRD for miners are calculated to be 4.1 and 3.6 (both non-significant) for those from New York and Vermont, respectively (Figure 2).

As for other respiratory system deaths, influenza or pneumonia caused the death of one New York State talc worker (0.9 expected) but no Vermont talc miner (0.7 expected) or miller (0.8 expected). Mesothelioma caused the death of one New York State talc man (15 years after hire which followed 28 years in mining and construction) and of one Vermont talc man.

DISCUSSION

We have attempted to assemble similarly defined cohorts of New York State and Vermont State talc workers in order to compare the respiratory mortality risks of their miners and millers. The exposures of millers generally exceed that of miners by a factor of two to six. Nonetheless, both groups demonstrate a similar excess lung cancer risk only for their millers and not for their miners. The similar lung cancer risks of the two groups of talc workers exposed to the differently described talcs suggest that the elongated particulates seen in the New York State talc have not introduced an increased lung cancer risk. We further observe that the risk of non-infectious, non-neoplastic respiratory death, while apparently increased in all groups, is significantly elevated only among the Vermont millers.

Standardized mortality ratios (SMRs) were calculated for each group based on age-specific, calendar time-specific, cause-specific mortality rates for white males. The New York State study SMRs had been calculated using U.S. rates with death certificates coded according to the eighth revision of the International Classification of Diseases (ICD). The Vermont State study SMRs were first calculated using U.S. rates and then recalculated by its authors using Vermont State rates for non-malignant respiratory disease and respiratory cancer

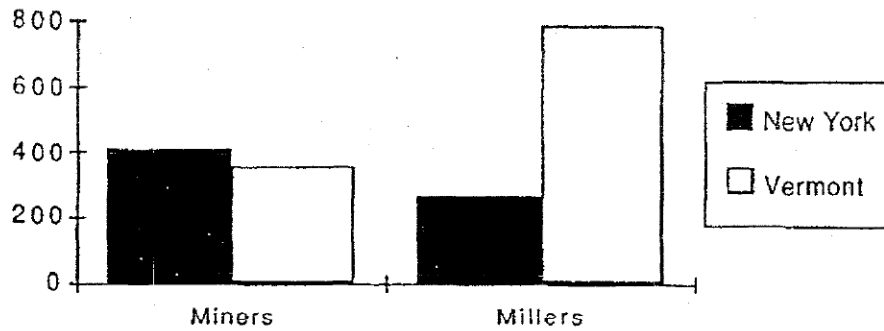


Figure 2. Non-infectious, non-malignant respiratory disease (NNRD) mortality risks for miners and millers of New York State and Vermont State talc.

COMPARATIVE LUNG MORTALITY RISKS of VERMONT and NEW YORK STATE TALC WORKERS with at least one year experience at Talc Plant

	Vermont		New York		New York		New York	
	O/E	SMR	O/E	SMR	O/E	SMR	O/E	SMR
All Emp >1 yr.								
All Causes	44/37.15	118	64/49.83	128	118/83.58	141*	54/33.75	160*
All Cancers			15/9.55	157	26/15.7	165*	9/6.15	146
Lung Cancer	6/3.61	163	6/3.11	193	12/5.01	240*	6/1.90	316*
NNRD	11/1.79	615*	6/1.61	372*	6/2.64	227	0/1.03	---
Millers								
All Causes			20/21.74	92	35/30.97	113	15/9.23	163
All Cancers			3/4.23	71	6/5.94	101	3/1.71	175
Lung Cancer	2/1.96	102	1/1.41	71	1/1.92	52	0/0.51	---
NNRD	7/1.89	787*	2/0.74	270	2/1.02	196	0/0.28	---
Miners								
All Causes			31/16.76	185*	50/26.32	190*	19/9.56	199
All Cancers			10/3.23	310*	15/5.00	300*	5/1.77	282
Lung Cancer	5/1.15	435*	5/1.09	460*	9/1.66	543*	4/0.57	701*
NNRD	2/0.56	357	2/0.49	408	2/0.77	260	0/0.28	---
Others								
All Causes			13/11.33	115	33/26.29	126	20/14.96	134
All Cancers			2/2.09	96	5/4.76	105	3/2.67	112
Lung Cancer	0/0.55	---	0/0.61	---	2/1.43	140	2/0.82	244
NNRD	2/0.34	588.0	2/0.38	526	2/0.85	235	0/0.47	---

COHORT DEFINITION

LUNG CANCER

Cohort Variable	NEW YORK	VERMONT	NEW YORK	VERMONT
Gender	Male	Male	VERMONT	
Race	White	White	Observed/Expected	
Employment Dates	1947-1977	1940-1969	Millers 1/1.41	2/1.96
Employment Duration	One Year +	One Year +	Miners 5/1.15	5/1.09
Mortality Dates	1947-1978	1940-1975	Others 0/0.55	0/0.61
Cohort Numbers				
Miners	152	163		
Millers	187	225	SMR	
			Millers 71	102
			Miners 460	435
			Others ---	---

4/7/88

COMPARATIVE LUNG MORTALITY RISKS of
VERMONT and NEW YORK STATE TALC WORKERS
with at least one year experience at Talc Plant

Ever employed < one Year

All Emp >1 yr. LATENCY (Years)	Vermont		New York		New York		New York	
	O/E	SMR	O/E	SMR	O/E	SMR	O/E	SMR
0-4			0/0.27	---	0/0.42	---	0/0.15	---
5-9			0/0.31	---	0/0.49	---	0/0.18	---
10-14			1/0.45	224	1/0.69	145.0	0/0.24	---
15-19			2/0.60	331	2/0.98	205.0	0/0.38	---
20-24			3/0.79	378	8/1.29	623*	5/0.50	1000
25-29			0/0.65	---	1/1.09	92.0	1/0.44	227
30+			0/0.04	---	0/0.05	---	0/0.01	---
Total			6/3.11	193	12/5.01	240*	6/1.90	316*
0-9			0/0.58	---	0/0.91	---	0/0.33	---
10-19			3/1.05	285	3/1.67	180	0/0.62	---
20-29			3/1.44	208	9/2.38	378*	6/0.94	638*
30+			0/0.04	---	0/0.05	---	0/0.01	---
Total			6/3.11	193	12/5.01	240*	6/1.90	316*
0-4			0/0.27	---	0/0.42	---	0/0.15	---
5-14			1/0.76	132	1/1.16	85	0/0.42	---
15-24			5/1.39	360*	10/2.27	441*	5/0.88	568*
25+			0/0.69	---	1/1.14	87	1/0.45	222
Total			6/3.11	193	12/5.01	240*	6/1.90	316*

4/7/88

COMPARATIVE LUNG MORTALITY RISKS of
VERMONT and NEW YORK STATE TALC WORKERS
with at least one year experience at Talc Plant

		Vermont		New York	
		O/E	SMR	O/E	SMR
All Causes	Emp >1	44/37.15	118.0	64/49.83	128
All Cancers	Emp >1			15/9.55	157
Lung Cancer	Emp >1	6/3.61	163	6/3.11	193
NNRD	Emp >1	11/1.79	615	6/1.61	372
Pneumonia/Influ	Emp >1	0/1.89	000	1/0.9	109
All Causes	Millers			20/21.74	92
All Causes	Miners			31/16.76	185
All Causes	Others			13/11.33	115
All Cancers	Millers			3/4.23	71
All Cancers	Miners			10/3.23	310
All Cancers	Others			2/2.09	96
Lung Cancer	Millers	2/1.96	102	1/1.41	71
Lung Cancer	Miners	5/1.15	435	5/1.09	460
Lung Cancer	Others	0/0.55	---	0/0.61	---
NNRD	Millers	7/1.89	787	2/0.74	270
NNRD	Miners	2/0.56	357	2/0.49	408
NNRD	Others	2/0.34	508	2/0.38	526
4/7/88	Bold =	p < 0.05			
Pneumonia/Influ	Millers	0/1.83	000		
Pneumonia/Influ	Miners	0/1.67	000		
Pneumonia/Influ	Others	0/1.39	000		

Standardized Mortality Ratios		
	Vermont	New York
Lung Cancer		
Millers	102	71
Miners	435	460
Others	---	---
NNRD		
Millers	787	270
Miners	357	408
Others	588	526

NON-INFECTIOUS, NON-
MALIGNANT
RESPIRATORY DISEASE

	NEW YORK	
VERMONT		
Observed/Expected		
Miller	2/0.74	7/0.89
Miners	2/0.49	2/0.56
Others	2/0.38	2/0.34
 SMR		
Millers	270	787
Miners	408	357
Others	526	588

with death certificates coded according to the seventh revision of the ICD. This report bases the SMRs on the U.S. rates.

The New York State study reports lung cancer as their measure of malignant respiratory disease and NNRD (non-infectious, non-neoplastic respiratory disease) as their measure of non-malignant respiratory disease. The Vermont State study reports respiratory cancer as their measure of malignant respiratory disease and ONMRD (other non-malignant respiratory disease) as their measure of non-malignant respiratory disease. Both NNRD and ONMRD are terms for total non-malignant respiratory disease, excluding influenza and pneumonia. We have used the labels of lung cancer and NNRD to represent the malignant and non-malignant respiratory disease measures.

Twelve of the thirteen respiratory cancers among the New York State talc workers were lung cancers. The thirteenth case was a man whose five years at the plant included three months as a laborer/oiler in the talc mill and ended with death from mediastinal cancer. Re-analysis of the New York State data as respiratory cancer rather than lung cancer would have reduced the SMR estimates by about 5% but not have altered the comparison between the miners and millers. Both the

New York and the Vermont data are compared against U.S. mortality rates.

The Vermont data included persons with experience in both the mine and the mill in each category; the New York data separated them out. There were only 34 such New York workers with experience in both the mine and the mill. Less than 0.1 lung cancer and less than 0.1 NNRD deaths were expected among them, and none were observed. Including this group among the miners and the millers of New York State would not have affected the results.

Studies of both cohorts lack full information on smoking history. Each indicates that most of the lung cancer cases were known to be cigarette smokers, but data on smoking appears to be inadequate for both cohorts. There is no evidence that miners and millers differ in their smoking habits. Thus, it is unlikely that the differences observed in these comparisons could be due to differences in smoking between groups.

The mortality of the experienced employees of the New York and Vermont cohort who worked other than in the mine or the mill for a year were also examined. There were no lung cancer deaths. Each group had two NNRD deaths, yielding non-significant risks of 5.9 for those from Vermont and 5.3 for those from New York.

While the NNRD mortality may be due to dust exposures at the talc plants, the etiology of the lung cancer is less clear. The NIOSH authors² concluded that talc dust was unlikely to be the cause of the respiratory cancer, since the risk was seen only in the miners and not seen among the millers, a group with probable higher dust exposure. Radon daughter measurements in the New York mine do not explain the finding. The presence of a particulate in New York dust and not in Vermont talc dust cannot explain the difference.

The CEOH study¹ had supported the hypothesis of risk from prior employments as the explanation for the lung cancer risk of the New York State talc workers, however, that hypothesis has not been examined for the Vermont talc workers. Further study of both cohorts should be undertaken to explain the mortality patterns seen. The small number of cases in either group will probably be a hindrance to a full and clear explanation. Both cohorts should probably be extended to include later employees and the period of follow-up should be brought more current by at least a decade. A four-fold risk of lung cancer seen in two different studies of talc miners (but not millers) cries for an explanation.

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A nested case control study of lung cancer among New York talc workers

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Summary: This nested case control study assessed the relationship of lung cancer and time exposed to talc, while controlling for smoking, other talc exposures, and nontalc exposures. There were 22 lung cancer cases (91% smokers and 9% former smokers) and 66 controls (27% nonsmokers, 9% former smokers, and 64% smokers). Smokers were at sixfold increased risk compared to nonsmokers and ex-smokers. When stratified by smoking status, risk of lung cancer decreased with talc tenure and remained negative when excluding cases with < 20 years' latency and short-term workers. These data suggest that nontalc exposures are not confounding risk factors while smoking is, and that temporal and exposure-response relationships are consistent with a smoking etiology but not an occupational etiology for lung cancer.

Key words: Talc - Lung cancer - Amphiboles - Case control study - Tremolite

Introduction

In 1980 the National Institute of Occupational Safety and Health (NIOSH) published a morbidity, mortality, and environmental study of miners and millers at the Gouverneur Talc Company (GTC) (Dement et al. 1980). Ten years later an updated portion of the earlier report was published as a health hazard evaluation (HHE) (Brown et al. 1990). During this period there were two other mortality studies of basically this same cohort (Stille and Tabershaw 1982; Lamm et al. 1988) as well as considerable discussion regarding the mineralogical composition of the talc and the cause of the excess lung cancer mortality. Various causes for the excess were suggested including the amphibole minerals in the talc, prior employment in other industries and/or in other New York talc companies, and smoking (Brown et al. 1983; Tabershaw and Thompson 1983; Dement and Brown 1982; Thompson 1984; Taylor 1981; Campbell et al.

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1979; Campbell 1978; Keise and Thompson 1989, 1990; Dement 1990; Virta 1985; Reger and Morgan 1990).

The original design of the HHE included updating the original cohort and conducting a nested case control study (Gamble and Piacitelli 1988). The nested case control study reported here investigates the confounding potential of non-GTC risk factors and exposure-response relationships while controlling for these risk factors and using tenure as the surrogate for exposure. Analysis by cumulative exposure remains to be published.

Materials and methods

All cases and controls were from the cohort of 710 white males of GTC talc workers employed between 1947 and 1978 with follow-up through 1983 (Gamble and Piacitelli 1988; Brown et al. 1990). All persons with lung cancer (ICD 162-163, 8th Revision) certified as the underlying cause of death on the death certificate were defined as cases. Each case was matched with three controls in whom all categories of nonneoplastic respiratory disease (ICD 460-519) and accidents (ICD E800-E949) had been excluded; controls were selected from survivors and deceased by reference to the closest match with respect to date of birth and date of hire. Controls must have survived the case, and control history ended at date of death of the case.

Information on each case and control concerning tobacco use and work history was obtained from interviews of the person himself (if living) or from relatives or friends. Interviews were conducted over the phone whenever possible, or by mail if not. Also, verification from other sources was done whenever possible. For example, several relatives were asked about smoking and work history. Information from GTC personnel records provided some pre-GTC employment history. Confirmation of previous employment was obtained when possible by contacting the previous employer directly.

Talc mining has gone on in this region of New York for many years, and some of the cases and controls had worked at other talc mines in addition to the GTC talc mine and mill. One analysis therefore adds non-GTC talc employment to that of years worked at the GTC talc mine or mill.

To control for possible confounding due to nontalc exposure, a panel of nine epidemiologists and industrial hygienists rated the risk of lung cancer associated with nontalc jobs as listed in the work histories without knowledge of case and control status. Each nontalc job was rated as "probable," "possible," or "no" risk of job-associated lung cancer; each category was given a score of 3, 1,

individual's total score was the composite score for each job multiplied by years in that job, and summed over all jobs. Total scores were divided into four categories of roughly comparable size. Estimates of the odds ratios (OR) for each category and trend analysis were used to assess whether non-talc exposure represented a risk factor deserving control in the exposure-response analysis.

The cases and controls were divided into two tenure groups (< 5, 5-15, 15-36; < 1, 1-9, 10-19, 20-36) for the major analyses of exposure-response relationships (Gamble and Piacitelli 1988). Since the results for both tenure analysis were similar only one tenure grouping is reported here. This analysis was done using GTC tenure with all cases and controls, and then repeated including only smokers. Additional analysis by GTC tenure for smokers only was done with exclusion of all cases and controls with: < 1 year's tenure; < 20 years' latency; < 20 years' latency and < 3 months' tenure. A similar analysis was repeated using all talc tenure (GTC plus non-GTC).

A linear trend in the OR by exposure was estimated following the methods described by Rothman (1986). Using a least squares approach to a weighted regression where $b' = b_1/b_0$, the slope b' was estimated from the equation case control OR = $b_0 + b_1x$. The slope b' describes mathematically the change in OR for each year

interval (CI) for b' was calculated.

In addition, means of exposure were compared for cases and controls using paired and independent sample *t*-tests as appropriate. All tests were performed at the 0.05 significance level. Except for the comparison of exposure levels for cases and controls, all testing and confidence interval estimation may depend on the assumption of a large sample size.

Results

Table 1 summarizes descriptive information on the cases and controls. All of the 22 cases were either smokers (91%) or ex-smokers (9%), while of the controls, 42 (64%) were smokers, 6 (9%) ex-smokers, and 18 (27%) nonsmokers. Cases and controls who smoked were quite comparable in age, year of hire, and age at hire. Controls were somewhat heavier smokers than cases, and controls who smoked had almost twice the tenure of cases who smoked. Tables 2 and 3 present more detailed information on the 22 cases.

Table 1. Characteristics of lung cancer cases and controls

	Cases (n = 22)	Controls (n = 66)
Mean year of first employment	1949.7	1949.5
Mean age at first employment	34.6	34.1
Mean year of birth	1915	1915
Mean years worked		
Mean (SD)	6.6 (8.6)	9.2 (11.1) (P = 0.08)
Range	(0.003-23.5)	(0.003-35.3)
Mean years worked, all talc	7.7 (9.2)	9.9 (12.1) (P = 0.12)
Ex-smokers		
No. (%)	2 (9)	6 (9)
Mean cig/day (SD)	20 (9)	48.3 (13.3)
Mean pack years (SD)	29.5 (9.2)	87.5 (35.0)
Year of hire	1953.5	1950.0
Age at hire (SD)	37.5 (9.2)	32.5 (8.7)
Year of birth	1915.5	1916.8
Years worked [mean (SD)]		
GTC	18.3 (2.3)	4.6 (9.8) (P = 0.11)
All talc	18.3 (2.3)	4.9 (9.6) (P = 0.11)
Smokers		
No. (%)	20 (91)	42 (64)
Mean cig/day (SD)	25.7 (12.0)	27.4 (12.7)
Mean pack years (SD)	53 (31.9)	61.9 (34.1)
Mean age began smoking (SD)	18.0 (3.7)	16.7 (3.5)
Year of hire	1949.3	1949.2
Age at hire (SD)	34.3 (8.5)	32.7 (7.02)
Year of birth	1914.7	1916.3
Years worked [mean (SD)]		
GTC	5.4 (8.1)	10.4 (11.4) (P = 0.08)
All talc	6.6 (8.9)	11.5 (12.8) (P = 0.13)
Non-smokers		
No. (%)	0 (-)	18 (27)

Case no.	Age at death	Smoking					Talc work history			
		Status	Age started	Latency	Cig./day	Pack years	Age at hire	GTC latency	Tenure in years	
									GTC	All talc
1	79	S	Unk	Unk	20	62	57	22	0.02	0.02
2	77	S	17	60	40	120	42	35	0.20	0.20
3	63	S	18	45	40	90	42	21	0.05	0.05
4	75	S	Unk	Unk	20	Unk	41	34	23.5	23.5
5	52	S	19	33	3	5	47	5	5.31	5.31
6	55	S	29	26	10	8	39	16	2.83	2.83
7	62	Ex	17	45	20	36	44	18	16.7	16.7
8	68	S	12	56	20	56	35	33	0.35	3.35
9	58	S	Unk	Unk	20	Unk	34	24	0.64	1.06
10	64	S	25	39	20	38	34	30	1.49	2.02
11	59	S	14	45	30	56	36	23	11.78	23.5
12	62	S	20	42	40	84	32	30	22.51	23.5
13	63	S	Unk	Unk	20	Unk	31	32	0.003	0.003
14	53	S	Unk	Unk	20	Unk	31	22	0.15	0.15
15	65	Ex	Unk	Unk	20	Unk	31	34	20.0	20.0
16	63	S	15	48	50	120	30	33	16.67	16.67
17	54	S	19	35	20	33	30	24	2.51	9.59
18	39	S	14	25	20	25	27	12	2.58	2.58
19	53	S	Unk	Unk	20	Unk	26	27	0.21	0.21
20	45	S	20	25	40	50	24	21	0.15	0.15
21	49	S	17	32	20	23	25	24	17.38	17.38
22	56	S	18	38	40	76	23	33	0.16	0.16

Unk. Unknown

Three potentially confounding risk factors are of primary concern: nontalc exposure, smoking, and non-GTC talc employment. Table 4 presents ORs for all cases and controls by estimated risk from nontalc exposure. The highest and medium-low scores showed a decreased risk while the medium-high score was slightly elevated. The slope of the OR (b') was negative (-0.0008). At the midpoint of the high nontalc exposure group (score = 377), the estimated OR from the regression model $OR = 1 + b'$ (exposure) was 0.70, with 95% CI of 0.25 and 1.08. Since there was no trend for the risk of lung cancer to increase with nontalc exposure and therefore no apparent confounding, this factor is not controlled in further analyses.

Table 5 presents the risk of lung cancer by smoking category and cigarettes/day. Smoking cigarettes increased the OR for lung cancer almost sixfold compared to combined nonsmokers and ex-smokers, and 1.4 times compared to ex-smokers. There was little apparent difference in the OR for lung cancer by the number of cigarettes smoked per day. Smoking is controlled in some of the subsequent analyses by including only cases and controls who smoked.

Table 6 presents the relative odds of lung cancer by tenure group for all cases and controls. ORs were around the null value with increasing tenure. The point estimates for the slope of the OR was negative, but the upper 95% confidence limit was positive. At 25 years' tenure the estimated OR from the regression model was 0.80 (0.55, 1.06).

When only smokers were considered, ORs were less than 1 with increasing tenure (Table 7). The point estimate of the slope and the upper 95% CI were both negative. At 25 years' tenure the estimated OR was 0.39 (0.11, 0.67).

Tables 8-10 present data for smokers only and include only cases and controls with ≥ 1 year's tenure (Table 8), ≥ 20 years' latency (Table 9), and ≥ 20 years' latency and > 3 months' tenure (Table 10). The results are similar to those observed in Table 7; the ORs all decline with increasing tenure, the slopes are negative, and the upper 95% CIs are negative, except in Table 10, where the upper 95% CI is positive.

Another possible confounder is employment at non-GTC talc mines and mills. Table 11 compares the risk of total talc employment (GTC plus non-GTC) for all cases and controls. The only change was one more case in the ≥ 15 year tenure group and one less case in the < 5 year tenure group. The OR slope was positive, and at 25 years' tenure the estimated OR was 1.03 (0.73, 1.33).

Table 12 compares the risk of total talc employment stratified by smoking. The slope and upper 95% CI are negative. At 25 years' tenure the estimated OR is 0.54 (0.21, 0.87).

Discussion

The primary reason for this nested case control study was to try and determine whether talc exposure was the

Case no.	GTC employment	Non-GTC employment*
1	Carpenter	Construction carpenter (37), lumber camp (2) iron Mine (1)
2	Painter	Painter (35), Purchasing clerk (iron, St. Joes) (16)
3	Millwright	Welder (steel mill) (10), paper mill (5)
4	Miller, oiler, forklift op.	Driller (16)
5	Laborer, oiler	Mine (> 9), foundry (molder) (12), construction carpenter
6	Blacksmith and welder	Road construction (5), mine blacksmith and welder (6), car mechanic (3), welder (10)
7	Miner	Dairy farmer (35)
8	Mucker, machine man	Driller (talc, coal, zinc) (18), St. Lawrence Seaway (5)
9	Mucker and driller	St. Joe lead (2), paper co. (2), Int. Talc (1), farm (5), army (4), unknown (13)
10	Mucker and driller	Military (7), Int. Talc (1), manufacturing (?) (18), truck driver (17)
11	Trammer, electrician, driller, Eimco op., scraper op., mucker	Paper mill (1), hosiery mill (3), Loomis Talc (driller, foreman) (12), construction (1), TV repair (10)
12	Mucker, Eimco op., driller hoistman, trammer	Mucker, driller (St. Joe Lead) (2), packer (Talc) (1), farm (3), sinking shafts (1)
13	Mucker	Driller (iron) (20), dairy farm (3), carpenter (1), construction (31)
14	Mucker	Army (4), ALCOA (5), driller (6 mo), sawmill, unknown (3), const, driller (3), Farm (11)
15	Mucker, scraper op., Eimco op., shaft mucker, driller	Farm, feed mill (1), operator (aluminum company) (1)
16	Miner	Farm (23), zinc miner (3), heavy equipment op. (5), zinc mill (5)
17	Mucker, driller	Farm, mucker/driller (talc) (7), blaster (iron Mine) (19)
18	Mucker, Eimco op.	Mucker (1), ALCOA (3 mo), military (1), manufacturing bowling pins (1), unknown (1)
19	Mucker	Army (7), manufacturing (1), miner (3 mo), farm, (4 mo), sawmill (1), radio repair, TV repair (5)
20	Blacksmith	Quarry (> 1), ALCOA (5), driller (iron) (4 mo), roofer (hot tar) (2), machinist (5), foundry (1)
21	Laborer, miller, cal. process op., wheeler mill, process air op., car liner	Paper mill (9), stock clerk (7)
22	Laborer	Road crew (3 mo), St. Joes Mineral (1), iron mine (6 mo), Foundry (molder) (4 mo), construction (1 mo), navy (3), custodian (22)

*Figures within parentheses represent years of employment, unless otherwise indicated

cause of the elevated standardized mortality ratios (SMRs) for lung cancer which were observed in the previous cohort studies (Dement et al. 1980; Stille and Tabershaw 1982; Lamm et al. 1988) and which remained after 8 more years of follow-up (Gamble and Piacitelli 1988; Brown et al. 1990). To do this it is necessary to address the issues of possible confounding from other occupational exposure, non-GTC talc exposures, and smoking and to evaluate exposure-response. There was no apparent confounding from other exposures as the ORs showed no trend to increase with increasing risk scores from nontalc employment. As expected, smoking was a risk

factor for lung cancer and was more prevalent among cases than controls, thereby confounding the analysis and elevating the observed risk ratio in the cohort studies. The exposure-response relationship for all cases and controls was slightly negative, but not statistically significant. When controlling for smoking the trend was negative and statistically significant; that is, as tenure increased, the ORs for lung cancer decreased and the upper 95% confidence limits were negative. The finding of a decreased risk ratio with increasing tenure was not materially affected by non-GTC talc exposure and remained when cases and controls with less than 20 years' latency.

Score (panel score \times years employed)	Cases	Controls	Odds ratio
221-533	3	13	0.55
121-220	6	13	1.10
51-120	5	21	0.57
0-50	8	19	1.00
	22	66	

Slope of OR b' (SE) = -0.0008 (0.0005); $b' = b_1/b_0$; 95% CI of $b' = -0.002, +0.0002$; $b = 0.82$; $b_1 = -0.0007$
 Estimated OR at midpoint of high exposure group (score = 377) = $1 + b'(\text{score}) = 1 + (-0.0008)(377) = 0.70$; 95% CI: $1 + (-0.002)(377) = 0.25$ (lower); $1 + (+0.0002)(377) = 1.08$ (upper); $\chi^2 = 0.266$ (NS).

< 1 year's tenure, and less than 20 years' latency and 3 months' tenure were excluded.

There is a potential for misclassification of nontalc exposures and smoking history. Nontalc exposures were collected from several sources including personnel records and questionnaires administered to subjects or surrogates. Assessment of risk by the panel was done blind. The incompleteness of the non-GTC work history should be similar for both cases and dead controls. If there is a recall bias it should be greater recall for the controls than cases. If present, this would tend to increase the risk away from the null.

Smoking history was obtained by questionnaire, and from several surrogates for cases and dead controls. Two studies (Kolonel 1977; Lerchen and Samet 1986) indicate 96% and 100% agreement of smoking status when comparing wives' responses to those of their husbands. Thus classification by smoking status is likely to be quite good. If there is recall bias it is most likely to be less collection among cases than among controls.

was present among workers with short tenures (Dement et al. 1980; Brown et al. 1990; Lamm et al. 1988). Several possible explanations have been given for this observation (Brown et al. 1990). One is that exposure to other lung carcinogens may have occurred via non-GTC employment. Six of the 22 cases had some known non-GTC talc employment. No increased risk was found for either nontalc employment nor for total talc employment (both GTC and non-GTC) when controlling for smoking. Second, it has been suggested that short-term employees may have had very high exposures. In this study cases were matched on date of hire and so controls had as great an opportunity of high exposure as did cases. Further, removing short-term workers (≤ 1 year's tenure) from the analysis did not affect the results. Thus these hypothetical explanations do not appear to be valid.

Another purpose for conducting the case control study was to adjust for possible confounding effects of smoking. In an SMR analysis using the U.S. population as a standard, the smoking habits of the exposed and referent populations may differ, thereby in part explaining the high risk ratio for the talc workers. It has been suggested that smoking alone does not account for the excess as the 1976 smoking habits of the GTC workers "were not much different from those of U.S. white males" (Brown et al. 1990). However, the smoking habits of the 1976 GTC workforce do not necessarily reflect the smoking habits of the cases. One way to employ a more appropriate reference group is to use workers drawn from the same population as the cases, as was done in this study. Such an internal comparison population shows quite different smoking patterns from the cases: 91% smokers among cases vs 64% among controls, and 0% nonsmokers among cases vs 27% among controls.

Another argument against smoking explaining the excess risk is "even if 100% of the cohort were smokers, the risk for lung cancer would have been increased only by 60% or an SMR of 160" (Brown et al. 1990). As it

Table 5. Lung cancer risk by smoking status and cigarettes smoked/day: all cases and controls (smokers compared to (1) ex-smokers and nonsmokers and (2) ex-smokers only)

	Cases	Controls	Odds ratio (95% CI)	
Smoker	20	42	5.71 (0.36, 7.81)	1.43 (0.31, 9.07)
Ex-smoker	2	6	1.0 (Ex-smoker and nonsmoker)	1.00 (Ex-smoker only)
Nonsmoker	0	18		
	22	66		
<i>Cigarettes/day</i>				
> 40	6	11	6.55	1.64
20-39	12	27	3.33	1.33
1-19	2	4	6.0	1.5
Ex-smokers	2	6		1.00 (ex-smoker only)
Nonsmokers	0	18	1.0 (ex-smoker and nonsmoker)	
	22	66		

Slope of OR when reference group = ex-smokers and nonsmokers; b' (SE) = -0.12 (0.008); 95% CI = 0.105, 0.14; $b_0 = 1.09$; $b_1 = 0.13$
 Estimated OR for 20 cig/day smoker = $1 + (0.12)(20) = 3.42$ (3.10, 3.75); $\chi^2 = 4.68$

Table 6. Lung cancer risk by tenure at GTC: all cases and controls

Tenure-years	Cases	Controls	Odds ratio
15-36	6	21	0.82
5-15	2	5	1.14
<5	14	40	1.00
	22	66	

Slope of OR b' (SE) = -0.008 (0.003); $b' = b_1/b_0$; 95% CI of $b' = -0.018, +0.002$; $b_0 = 1.03$; $b_1 = -0.008$
 Estimated OR (95% CI) at 25 years' tenure = $1 + (-0.008)$ (25) = 0.80 (0.55, 1.06); $\chi^2 = 0.13$ (NS)

Table 7. Lung cancer risk by tenure at GTC: smokers only

Tenure-years	Cases	Controls	Odds ratio
15-36	4	15	0.42
5-15	2	5	0.63
<5	14	22	1.00
	20	42	

Slope of OR b' (SE) = -0.024 (0.006); 95% CI = -0.04, -0.01; $b_0 = 1.04$; $b_1 = -0.03$
 Estimated OR (95% CI) at 25 years' tenure = $1 + (-0.02)$ (25) = 0.39 (0.11, 0.67); $\chi^2 = 1.78$ (NS)

Table 8. Lung cancer risk by tenure at GTC: smokers only with ≥ 1 year's tenure

Tenure-years	Cases	Controls	Odds ratio
15-36	4	15	0.53
5-15	2	5	0.80
1-5	4	8	1.0
	10	28	

Slope of OR b' (SE) = -0.019 (0.007); 95% CI = -0.03, -0.006; $b_0 = 1.04$; $b_1 = -0.02$
 Estimated OR (95% CI) at 25 years' tenure = $1 + (-0.019)$ (25) = 0.52 (0.19, 0.84); $\chi^2 = 0.577$

Table 9. Lung cancer risk by tenure at GTC: smokers only with ≥ 20 years latency

Tenure-years	Cases	Controls	Odds ratio
15-36	4	15	0.49
5-15	1	4	0.46
<5	12	22	1.0
	17	41	

Slope of OR b' (SE) = -0.021 (0.006); 95% CI = -0.03, -0.01; $b_0 = 1.01$; $b_1 = -0.02$
 Estimated OR at 25 years' tenure = $1 + (-0.021)$ (25) = 0.47 (0.19, 0.75); $\chi^2 = 1.152$

turns out, 100% of the cases were smokers. The overall SMR for lung cancer was 207, with a lower 95% CI of 120; in the ≥ 20 year latency group, the SMR was 260 with a lower 95% CI of 137. Thus one cannot distinguish between the hypothetical SMR of 160 and the actual

Table 10. Lung cancer risk by tenure at GTC: smokers only with ≥ 20 years latency and > 3 months tenure

Tenure-years	Cases	Controls	Odds ratio
15-36	4	15	0.73
5-15	1	4	0.69
3 mo-5 yr	4	11	1.0
	9	30	

Slope of OR b' (SE) = -0.01 (0.01); 95% CI = (-0.02, +0.003); $b_0 = 0.98$; $b_1 = -0.01$
 Estimated OR at 25 years' tenure = $1 + (-0.01)$ (25) = 0.74 (0.40, 1.08); $\chi^2 = 0.120$

Table 11. Lung cancer risk by total talc tenure: all cases and controls

Tenure-years	Cases	Controls	Odds ratio
15-41	7	21	1.03
5-15	2	5	1.23
<5	13	40	1.0
	22	66	

Slope of OR b' (SE) = +0.001 (0.006); 95% CI = -0.01, +0.01; $b_0 = 1.03$; $b_1 = 0.001$
 Estimated OR at 25 years' tenure = $1 + (0.001)$ (25) = 1.03 (0.73, 1.33); $\chi^2 = 0.002$ (NS)

Table 12. Lung cancer risk by total talc tenure: smokers only

Tenure-years	Cases	Controls	Odds ratio
15-41	5	15	0.56
5-15	2	5	0.68
<5	13	22	1.0
	20	42	

Slope of OR b' (SE) = -0.02 (0.01); 95% CI = -0.03, -0.005; $b_0 = 1.03$; $b_1 = -0.02$
 Estimated OR at 25 years' tenure = $1 + (-0.02)$ (25) = 0.54 (0.21, 0.87); $\chi^2 = 0.84$ (NS)

SMR for either all the lung cancer cases or for those with ≥ 20 years' latency. The inverse and statistically significant exposure-response trend found in the case control analysis points up the confounding effect of smoking in the cohort analyses. The lack of an exposure-response trend with talc tenure is contrary to conventional wisdom and to the conclusion that workplace talc exposures account for the increased risk of lung cancer.

Temporality is the only standard that may provide indisputable evidence that an association is not causal (Rothman 1986). A period of 20 or more years is a commonly used period between first exposure and the induction of lung cancer (Selikoff et al. 1980). Since death often occurs fairly shortly after diagnosis of the disease, the time between date of hire (or date of starting smoking) and date of death is used as the latency period.

The range of latency for asbestos workers at highest risk (textiles, insulation) and with long exposure is about 28-34 years (Selikoff et al. 1980; Knox et al. 1968; Dement et al. 1983). For a cohort exposed to high levels of

...ous, the mean latency is lower (21 years). (Seidman et al. 1986), as it is for vermiculite and asbestos cement workers (Weill et al. 1979; Amandus and Wheeler 1987). Chrysotile miners and millers, regardless of smoking habits or asbestos exposure, have a mean latency of about 40 years (Liddell 1980).

For mining cohorts exposed to nonasbestiform amphiboles (and for which there are no apparent exposure-response or causative relationships), the mean latency ranges from 22 to 32 years (Brown et al. 1986; Cooper et al. 1988). Smokers have a latency of about 40 years (Liddell 1980; Wynder and Stellman 1977).

The mean time from date of hire till death in GTC cases was 25 years; the length of time since starting smoking was 40 years. Thus the criterion of temporality suggests smoking is a more plausible risk factor for lung cancer than talc.

Analysis of exposure-response is an important element in the assessment of causality in this study. Misclassification of exposure will generally reduce the risk toward the null. The use of tenure as a surrogate estimate of exposure will not result in misclassification if subjects have the same exposure over time (Johnson 1986). If exposure is not the same over time then it may be difficult to show an exposure-response relationship or observe decreased risk with increased tenure. By matching for the period of exposure, there is some control for changes in exposure over time. To reduce the possibility of exposure misclassification, analysis of exposure-response using as the exposure variables net tenure (actual hours each employee worked) and cumulative quantitative estimates of dust exposure should be completed. The lack of such analyses does not, however, negate the observed inverse exposure-response relationship.

Another important criterion for evaluating causality is consistency. There is evidence the talc contains nonasbestiform amphiboles and a minor talc fiber component (Campbell et al. 1979; Campbell 1978; Kelse and Thompson 1989, 1990; Virta 1985). Mineral content of the talc varies somewhat but is generally in the range of 40%–60% tremolite, 1%–10% anthophyllite, 20%–40% talc, 20%–30% serpentine (antigorite-lizardite), and 0%–2% quartz (Kelse and Thompson 1989). NIOSH in 1980 reported over 70% tremolite and anthophyllite fibers in bulk and airborne samples from the talc mine that satisfied the regulatory definition of $\geq 5:1$ aspect ratio and $> 5 \mu\text{m}$ length (Dement et al. 1980). A mineralogical definition of asbestiform mineral fiber populations requires the presence of many particles $> 5 \mu\text{m}$ long with aspect ratios greater than 20:1 and thin fibrils $< 0.5 \mu\text{m}$ in width. Analysis of both bulk and airborne particles from the talc mine traditionally show little to no particles with an aspect ratio of 20:1 or greater, and none showed such asbestiform characteristics as splayed ends, curvature, or parallel fibers occurring in bundles for the amphibole components. For comparison, about 50% (37%–65%) of airborne fibers from asbestos mining and bagging operations had aspect ratios $> 20:1$. About 3% (0%–6%) of airborne cleavage fragments from other nonasbestiform amphibole mines (cummingtonite, actinolite grunerite/actinolite) have aspect ratios

$> 20:1$. The width of airborne cleavage fragment asbestos fibers is also distinctly different. About 6 amphibole asbestos and chrysotile fibers are $> 0.5 \mu\text{m}$ wide while 100% of amphibole and tremolite talc age fragments are $> 0.25 \mu\text{m}$ in width (Kelse and Thompson 1989). Based on these mineralogical characteristics this cohort of talc miners is considered to be exposed to talc containing nonasbestiform tremolite.

Other cohort studies of workers exposed to nonasbestiform amphiboles (Brown et al. 1986; Cooper et al. 1988) show a lack of relationship between tenure and risk of lung cancer similar to that shown by the cohort. No causal relationship is postulated in these cohorts mining nonasbestiform amphiboles.

Asbestos-exposed cohorts do show increased risk with increasing tenure (Seidman et al. 1986; Weill et al. 1979; Amandus and Wheeler 1987; McDonald JC et al. 1988; McDonald AD et al. 1983a,b, 1984; Hobbs et al. 1988; Hughes et al. 1987; Ohlson and Hoystedt 1985) and causal relationship is postulated. Workers exposed to asbestos were used to compare the consistency of the tenure-lung cancer association because of the contention that the talc contains asbestos (Dement et al. 1980; Dement and Brown 1982; Dement 1990). Thus the negative slope of the exposure-response curve (using tenure as a surrogate for exposure) is opposite to the effect one would expect if talc exposure were to increase the risk of lung cancer, is consistent with exposure-response relationships observed in populations mining nonasbestiform amphiboles, and is inconsistent with results from asbestos-exposed populations.

The SMRs for lung cancer (as well as for several other causes of death) are elevated in this group of talc workers. However, after adjustment for the confounding effect of smoking and the postulated role of very high exposures of short-term workers, the risk ratio for lung cancer decreases with increasing tenure. The lack of an exposure-response gradient is not consistent with a causal relationship. The time occurrence of lung cancer among these talc workers is more congruent with a smoking than a talc etiology.

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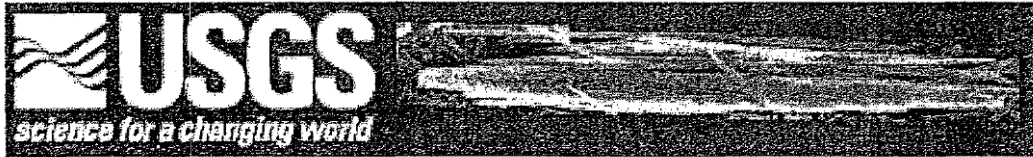
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Tabulation of Asbestos-Related Terminology

By Heather Lowers and Greg Meeker

Open-File Report 02-458

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

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Table 3. Asbestos

Community	Year	Source	Asbestos
Industrial	1975	Winson, R.W., 1975, Asbestos, <i>in</i> , Industrial minerals and rocks (nonmetallics other than fuels): New York, N.Y., American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc., p. 379-425.	...is a generic name given to a group of fibrous mineral silicates found in nature. They are all incombustible and can be separated by mechanical means into fibers of various lengths and cross sections, but each differs in chemical composition from the other.
Industrial	1981	Steel, E. and Wylie, A., 1981, Mineralogical characteristics of asbestos <i>in</i> Riordon, P.H. ed, Geology of Asbestos Deposits, Society of Mining Engineers, p. 93-100.	NA
Industrial	1998	Virta, R.L., 2002, Asbestos: U.S. Geological Survey Open File-Report 02-149, 35 p.	...is a generic name given to six fibrous minerals that have been used in commercial products. The six types of asbestos are chrysotile, the most widely used; crocidolite; amosite; anthophyllite asbestos; tremolite asbestos; and actinolite asbestos. The properties that make asbestos so versatile and cost effective are high tensile strength, chemical and thermal stability, high flexibility, low electrical conductivity, and larger surface area.
Interdisciplinary	1974	Thompson, C.S., 1974, Discussion of the mineralogy of industrial talcs: U.S. Bureau of Mines Information Circular 8639, p. 22-42.	The term "asbestos" is a nonscientific commercial term normally restricted in use to the long, threadlike fibrous varieties of several hydrated silicate minerals, whose fibers can be separated mechanically and pressed, spun, or woven into articles of all types that are resistant to heat and chemical alteration. Although present usage is generally limited to the commercially available silicate minerals, chrysotile, crocidolite, amosite, anthophyllite asbestos, tremolite asbestos, and actinolite asbestos, other minerals regardless of chemical composition, which possess similar qualities of great elongation, flexibility, high-tensile strength, heat and chemical resistance, spinability, etc., could properly be classified as asbestos.
Interdisciplinary	1978	Zoltai, Tibor, 1978, History of asbestos-related mineralogical terminology: National Bureau of Standards Special Publication 506, p. 1-18.	A collective mineralogical term which includes the asbestiform varieties of various (silicate) minerals.

Table 3. Asbestos

Community	Year	Source	Asbestos
Interdisciplinary	1979	Chatfield, E.J., 1979, Measurement of asbestos fibres in the workplace and in the general environment <i>in</i> Ledoux, R.L., Mineralogical techniques of asbestos determination: Mineralogical Association of Canada Short Course, v. 4, p. 111-157.	Asbestos is a term used to describe a number of minerals which have the property that they can be separated into long silky fibres.
Interdisciplinary	1980	Dixon, W.C., 1980, Applications of optical microscopy in analysis of asbestos and quartz, <i>chap 2 of</i> Dollberg, D.D. and Werstuyft, A.W., eds., Analytical techniques in occupational health chemistry: Washington, D.C., American Chemical Society, p. 13-41.	[Author quotes the federal register] 1. Asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite and actinolite. 2. "Asbestos fibers" means asbestos fibers longer than 5 micrometers.
Interdisciplinary	1980	Clark, R.L., 1982, MSHA standard method for fiber identification by electron microscopy: National Bureau of Standards Special Publication 619, p. 207-210.	[uses Code of Federal Regulations] "asbestos" is recognized as generic, applicable to a number of hydrated silicates, but its use is specifically limited to describe the minerals chrysotile, amosite, crocidolite, anthophyllite asbestos, tremolite asbestos, and actinolite asbestos.
Interdisciplinary	1980	Lee, R.J., Kelly, J.F., and Walker, J.S., 1982, Considerations in the analysis and definition of asbestos using electron microscopy: National Bureau of Standards Special Publication 619, p. 132-137.	...meaningful working definition of asbestos, we propose the following: 1. For routine method, a minimum aspect ratio of 10:1 should be used in a screening analysis or survey. Existing data indicate that this would not affect the chrysotile analysis at all and amphibole analysis only when the sample contains a significant percentage of acicular nonasbestos particles [11-16]. While this would undoubtedly result in missing 5 to 20 percent of the short asbestos particles, it would eliminate 70 to 80 percent of the nonasbestos particles from consideration. 2. A lower length limit for routine electron microscope analysis should be adopted. On the basis of available information, a reasonable limit would be somewhere between 0.75 and 2.0 microns [3]. 3. Asbestos analyses should be grouped into at least three size fractions and acceptable uncertainty levels defined for each range. For example, the length categories less than 2, 2 to 5, and greater than 5 μm might be chosen, and a 50 percent relative error defined as the minimum level of acceptance for each size range.

Table 3. Asbestos

Community	Year	Source	Asbestos
Interdisciplinary	1980	Chatfield, E.J. and Lewis, G.M., 1980, Development and application of an analytical technique for measurement of asbestos fibers in vermiculite: Scanning Electron Microscopy, p. 329-340.	NA
Interdisciplinary	1984	National Research Council, 1984, Asbestiform fibers-nonoccupational health risks: Washington D.C., National Academy Press, p. 25-47.	The term ASBESTOS is a commercial-industrial term rather than a mineralogical term. It refers to well-developed and hairlike long-fibered varieties of certain minerals that satisfy particular industrial needs. Table 2-1 lists the names of chemical formulas of the minerals included in the term asbestos. Other minerals used in industry, such as palygorskite, may also crystallize as well-developed, thin hairlike fibers (i.e., in the asbestiform habit), but they are not called asbestos. [Minerals listed in Table 2-1: chrysotile, riebeckite, anthophyllite, cummingtonite-grunerite, actinolite-tremolite]
Interdisciplinary	1984	Cossette, M., 1984, Defining asbestos particulates for monitoring purposes in Levadie, B. ed., Definitions for asbestos and other health-related silicates: ASTM Special Technical Publication 834, p. 5-49.	...a generic term for naturally occurring inorganic hydrated silicates, occurring in layered structures composed of chains of silicon/oxygen tetrahedra, which can subdivide into flexible fibers
Interdisciplinary	1984	Ross, M., Kuntze, R.A., and Clifton, R.A., 1984, A definition for asbestos in Levadie, B. ed., Definitions for asbestos and other health-related silicates: ASTM Special Technical Publication 834, pp.139-147.	...a term applied to six naturally occurring minerals exploited commercially for their desirable physical properties, which are in part derived from their asbestiform habit. The six minerals are the serpentine mineral chrysotile and the amphibole minerals grunerite asbestos (also referred to as amosite), riebeckite asbestos (also referred to as crocidolite), anthophyllite asbestos, tremolite asbestos, and actinolite asbestos... Individual mineral particles, however processed and regardless of their mineral name, are not demonstrated to be asbestos if the length-to-width ratio is less than 20:1.

Table 3. Asbestos

Community	Year	Source	Asbestos
Interdisciplinary	1988	Skinner, H.C., Ross, M., and Frondel, C., 1988, <i>Asbestos and other fibrous materials</i> : New York, N.Y., Oxford, 204 p.	A commercial and generally used name for fibrous varieties of naturally occurring silicate minerals of the amphibole or serpentine group (see chapter 2). Over the millennia many fibrous minerals have been called asbestos, including the six minerals presently accepted (see in the following), as well as other silicates such as palygorskite and nonsilicates such as brucite. The characteristics of mineral materials that have invoked the use of the term asbestos are: slender fibers that are easily separable and flexible, and fine fibers that have high tensile strength, chemical stability, and are incombustible. Natural unprocessed asbestos fibers have large aspect ratios and may have lengths of microscopic dimensions up to, in rare instances, a meter or so. Chrysotile-asbestos fibers are commonly 10 centimeters in length...Asbestos is used as an adjective in combination with numerous other words and phases, such as asbestos cement.
Interdisciplinary	1990	Mossman, B.T., Bignon, J., Corn, M., Seaton, A., and Gee, J.B.L., 1990, <i>Asbestos-scientific developments and implications for public policy</i> : Science, v. 247, p. 294-301.	"Asbestos" is a broad commercial term for a group of naturally occurring hydrated silicates that crystallize in a fibrous habit.
Interdisciplinary	2000	The American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company.	n. Either of two incombustible, chemical-resistant, fibrous mineral forms of impure magnesium silicate, used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters.
Interdisciplinary	2000	Wylie, A.G., 2000, <i>The habit of asbestiform amphiboles: implications for the analysis of bulk samples</i> in Beard, M.E. and Rooks, H.L., eds., <i>Advances in environmental measurement methods for asbestos</i> : ASTM Special Technical Publication 1342, p. 53-69.	NA

Table 3. Asbestos

Community	Year	Source	Asbestos
Interdisciplinary	2001	Beard, M.E., Crankshaw, O.S., Ennis, J.T., and Moore, C.E., 2001, Analysis of crayons for asbestos and other fibrous materials, and recommendations for improved analytical definitions: Research Triangle Park, North Carolina, Research Triangle Institute, Center for Environmental Measurements and Quality Assurance, Earth and Mineral Sciences Department, [informal report], 23 p., plus appendices A-H.	Asbestos is a commercial term for long, thin mineral fibers of chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite.
Interdisciplinary	2001	Nolan, R.P., Langer, A.M., Ross, M., Wicks, F.J., and Martin, R.F., eds., 2001, The health effects of chrysotile asbestos-contribution of science to risk-management decisions: The Canadian Mineralogist Special Publication 5, 304 p.	A commercial term that describes a group of extremely thin and flexible minerals that have a unique combination of physical and chemical properties. The long asbestos fibers can be spun in yarn and then made into woven fabric. Asbestos is derived from a Greek word meaning inextinguishable in the sense of indestructible, because asbestos cannot be destroyed by fire. Modern usage in mineralogy occurred when the term was applied to a fibrous amphibole mineral discovered in the Alps.
Medical	1977	Zielhuis, R.L.; 1977, Public health risks of exposure to asbestos: Elmsford, N.Y., Pergamon Press Inc., 143 p.	Asbestos refers to a group of inorganic silicates which occur naturally and have a distinct fibrous crystalline structure, which is largely responsible for its unique properties: tensile strength, stiffness, heat resistance, and ability to split into finer fibres.
Medical	1979	Langer, A.M., Rohi, A.N., Wolff, M., and Selikoff, I.J., 1979, Asbestos, fibrous minerals and acicular cleavage fragments-Nomenclature and biological properties, in Lemen, R. and Dement, J.M., eds., Dust and disease: Park Forest South, Ill., Pathotox Publishers, p. 1-22.	The term "asbestos" may be used to describe a mineral species only when its physical characteristics, on the megascopic level, are known: the mineral fiber possesses tensile strength, flexibility, and those other characteristics which distinguishes asbestiform minerals from their rock-forming analogues. Asbestos may also be applied to submicroscopic fibers if the source materials are known; for example, in an asbestos textile factory where chrysotile fiber is used.
Medical	1998	Blake, T., Castranova, V., Schwegler-Berry, D., Baron, P., Deye, G.J., Li, C., and Jones, W., 1998, Effect of fiber length on glass microfiber cytotoxicity: Journal of Toxicology and Environmental Health, v. 54, p. 243-259.	...refers to a group of naturally occurring fibrous metallic silicates that have been used widely in construction and industry.

Table 3. Asbestos

Community	Year	Source	Asbestos
Medical	2001	Ninth Report on Carcinogens, January 2001 http://ehp.niehs.nih.gov/roc/ninth/known/asbestos.pdf	...is a generic name given to a class of natural fibrous silicates that vary considerably in their physical and chemical properties.
Mineralogical	1914	Dana, E.S., 1914, The system of mineralogy of James Dwight Dana, descriptive mineralogy (6th ed): New York, N.Y., Wiley, p.	Asbestus. Asbestos. Tremolite, actinolite, and other varieties of amphibole, excepting those containing much alumina, pass into fibrous varieties, the fibers of which are sometimes very long, fine, flexible, and easily separable by the fingers and look like flax. These kinds are called asbestos.
Mineralogical	1977	Campbell, W.J., Blake, R.L., Brown, L.L., Cather, E.E., and Sjober, J.J., 1977, Selected silicate minerals and their asbestiform varieties: U.S. Bureau of Mines Information Circular 8751, 56 p.	(1) A collective mineralogical term encompassing the asbestiform varieties of various minerals; (2) an industrial product obtained by mining and processing primarily asbestiform minerals.
Mineralogical	1979	Campbell, W.J., Steel, E.B., Virta, R.L., and Eisner, M.H., 1979, Relationship of mineral habit to size characteristics for tremolite cleavage fragments and fibers: U.S. Bureau of Mines Report of Investigations 8367, 18 p.	NA
Mineralogical	1980	Bates, R.L., and Jackson, J.A., eds., 1980, Glossary of geology (2d ed.): Falls Church, Va., American Geological Institute, 749 p.	(a) A commercial term applied to a group of highly fibrous silicate minerals that readily separate into long, thin, strong fibers of sufficient flexibility to be woven, are heat resistant and chemically inert, and possess a high electric insulation, and therefore are suitable for uses (as in yarn, cloth, paper, paint, brake linings, tiles, insulation, cement, fillers, and filters) where incombustible, nonconducting, or chemically resistant material is required. (b) A mineral of the asbestos group, principally chrysotile (best adapted for spinning) and certain fibrous varieties of amphibole (esp. tremolite, actinolite, and crocidolite). (c) A term strictly applied to the fibrous variety of actinolite.—Syn: <i>asbestus</i> ; <i>amianthus</i> ; <i>earth flax</i> ; <i>mountain flax</i> .
Mineralogical	1982	Mackenzie, W.S., Donaldson, C.H., and Guilford, C., 1982, Atlas of igneous rocks and their textures: New York, N.Y., Wiley, p. 20.	NA
Mineralogical	1987	Dorling, M. and Zussman, J., 1987, Characteristics of asbestiform and non-asbestiform calcic amphiboles: Lithos, v. 20, p. 469-489.	In this study, only specimens [<i>in reference to calcic amphiboles</i>] which occur as bundles of fibres (commonly having splayed ends), which readily split into still finer sub-microscopic units (fibrils), are referred to and are classed as asbestos.

Table 3. Asbestos

Community	Year	Source	Asbestos
Mineralogical	1988	Skinner, H.C., Ross, M., and Frondel, C., 1988, <i>Asbestos and other fibrous materials</i> : New York, N.Y., Oxford, 204 p.	NA
Mineralogical	1993	Klein, C. and Hurlbut, C.S., Jr., 1993, <i>Manual of mineralogy</i> (after James D. Dana) (21st ed.): New York, N.Y., Wiley, 681 p.	The characteristic morphology of all asbestos minerals, in their natural form, is a parallel-sided fiber with a length to width ratio (referred to as an aspect ratio) in excess of 100:1 (Champness, P.E., Cliff, G. and Lorimer, G.W., 1976, <i>The identification of asbestos</i> , <i>Journal of Microscopy</i> , v. 108, pp. 231-249).
Mineralogical	1993	Veblen, D.R. and Wylie, A.G., 1993, <i>Mineralogy of amphiboles and 1:1 layer silicates in Guthrie Jr., G.D. and Mossman, B.T., eds., Health effects of mineral dusts: Reviews in Mineralogy</i> , v. 28, p. 61-137.	Asbestos is defined as a group of highly fibrous silicate minerals that readily separate into long, thin, strong fibers that have sufficient flexibility to be woven, are heat resistant and chemically inert, are electrical insulators, and therefore are suitable for uses where incombustible, nonconducting, or chemically resistant material is required.
Mineralogical	2001	Virta, R.L., 2001, <i>Some facts about asbestos</i> : U.S. Geological Survey Fact Sheet FS-012-01, 4 p.	...is a generic name given to the fibrous variety of six naturally occurring minerals that have been used in commercial products. Asbestos is made up of fiber bundles. These bundles, in turn, are composed of extremely long and thin fibers that can be easily separated from one another. The bundles have splaying ends and are extremely flexible. The term "asbestos" is not a mineralogical definition. It is a commercial designation for mineral products that possess high tensile strength, flexibility, resistance to chemical and thermal degradation, and high electrical resistance and that can be woven.
Mineralogical	2002	http://webmineral.com/help/Fracture.html	NA
Mineralogical	2002	http://webmineral.com/help/Habits.html	NA
Regulatory	1974	U.S. District Court, district of Minnesota, 5th Division. Supplemental Memorandum. No. 5-72, Civil 19, Appendix 5, May 11, 1974, p. 24	...is a generic term for a number of hydrated silicates that, when crushed or processed, separate into flexible fibers made up of fibrils.
Regulatory	1976	National Institute for Occupational Safety and Health, 1976, Revised recommended asbestos standard: DHEW (NIOSH) Publication No. 77-169, 96 p.	Asbestos fibers are defined as those particles with a length greater than 5 um and a length-to-diameter ratio of 3:1, or greater.
Regulatory	1983	29 CFR 1910.1001	For the purpose of this section, (1) "Asbestos" includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.

Table 3. Asbestos

Community	Year	Source	Asbestos
Regulatory	1990	Ohio Administrative Code (OAC) 3745-20-01	"Asbestos" means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite tremolite.
Regulatory	1992	Crane, D., 1992, Polarized light microscopy of asbestos: Occupational Safety and Health Administration Method # ID-191.	A term for naturally occurring fibrous minerals. Asbestos includes chrysotile, cummingtonite-grunerite asbestos (amosite), anthophyllite asbestos, tremolite asbestos, crocidolite, actinolite asbestos and any of these minerals which have been chemically treated or altered. The precise chemical formulation of each species varies with the location from which it was mined.
Regulatory	1992	Occupational Safety and Health Administration, 1992, Preambles IV. Mineralogical Considerations, National Stone Association and American Mining Congress	NA
Regulatory	1993	Perkins, R.L. and Harvey, B.W., 1993, Method for the determination of asbestos in bulk building materials: U.S. Environmental Protection Agency EPA/600/R-93/116, Office of Research and Development, Washington, D.C.	A commercial term applied to the asbestiform varieties of six different minerals. The asbestos types are chrysotile (asbestiform serpentine), amosite (asbestiform grunerite), crocidolite (asbestiform riebeckite), and asbestiform anthophyllite, asbestiform tremolite, and asbestiform actinolite. The properties of asbestos that caused it to be widely used commercially are: 1) its ability to be separated into long, thin flexible fibers; 2) high tensile strength; 3) low thermal and electrical conductivity; 4) high mechanical and chemical durability, and 5) high heat resistance.
Regulatory	1993	Occupational Safety and Health Administration, 1993, Better protection against asbestos in the workplace: U.S. Department of Labor Fact Sheet No. OSHA 93-06. Available on the world wide web at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FACT_SHEETS&p_id=144	...is a widely used, mineral-based material that is resistant to heat and corrosive chemicals. Typically, asbestos appears as a whitish, fibrous material which may release fibers that range in texture from coarse to silky; however, airborne fibers that can cause health damage may be too small to see with the naked eye.
Regulatory	1995	American Society for Testing and Materials, 1995, Standard test method for microvacuum sampling and indirect analysis of dust by transmission electron microscopy for asbestos structure number concentrations: West Conshohocken, Pa., ASTM 5755-95, 13 p.	...a collective term that describes a group of naturally occurring, inorganic, highly fibrous, silicate dominated minerals, which are easily separated into long, thin, flexible fibers when crushed or processed.

Table 3. Asbestos

Community	Year	Source	Asbestos
Regulatory	1995	International Organization for Standardization, 1995, ISO 10312 Ambient air-determination of asbestos fibres-direct-transfer transmission electron microscopy method (1st ed): Geneva, Switzerland, International Organization for Standardization, 51 p.	A term applied to a group of silicate minerals belonging to the serpentine and amphibole groups which have crystallized in the asbestiform habit, causing them to be easily separated into long, thin, strong fibres when crushed or processed. The Chemical Abstracts Service Registry Numbers of the common asbestos varieties are: chrysotile (12001-29-5), crocidolite (12001-28-4), grunerite asbestos (amosite) (12172-73-5), anthophyllite asbestos (77536-67-5), tremolite asbestos (77536-68-6) and actinolite asbestos (77536-66-4).
Regulatory	1996	Colorado Air Quality Control Commission, 1996, Part B-emission standards for asbestos, <i>excerpted from</i> Regulation No. 8 "The control of hazardous air pollutants": Colorado Department of Public Health and Environment, 114 p.	means asbestiform varieties of chrysotile, amosite (cummingtonite-grunerite), crocidolite, anthophyllite, tremolite, and actinolite.
Regulatory	1997	Crane, D., 1997, Asbestos in air: Occupational Safety and Health Administration Method # ID-160.	A term for naturally occurring fibrous minerals. Asbestos includes chrysotile, cummingtonite-grunerite asbestos (amosite), anthophyllite asbestos, tremolite asbestos, crocidolite, actinolite asbestos and any of these minerals which have been chemically treated or altered. The precise chemical formulation of each species varies with the location from which it was mined...
Regulatory	1997	NYCRR (New York Code of Rules & Regulations) Title 10 Section 73.1	Asbestos. Any naturally occurring hydrated mineral silicate separable into commercially usable fibers, including chrysotile (serpentine), amosite (cummingtonite-grunerite), crocidolite (riebeckite), tremolite, anthophyllite and actinolite.
Regulatory	2001	Environmental Protection Agency Part 763-Asbestos Subpart E--Asbestos-Containing Materials in Schools (7-1-01 Edition)	...means the asbestiform varieties of: Chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite-grunerite); anthophyllite; tremolite; and actinolite.
Regulatory	2001	Environmental Protection Agency Part 763-Asbestos Subpart E--Asbestos-Containing Materials in Schools Appendix A (7-1-01 Edition)	NA
Regulatory	2001	29 CFR 1910.1001	Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered.

Table 3. Asbestos

Community	Year	Source	Asbestos
Regulatory	2001	30 CFR 56.5001	... "Asbestos" is a generic term for a number of hydrated silicates that, when crushed or processed, separate into flexible fibers made up of fibrils. Although there are many asbestos minerals, the term "asbestos" as used herein is limited to the following minerals: chrysotile, amosite, crocidolite, anthophyllite asbestos, tremolite asbestos, and actinolite asbestos.
Regulatory	2001	17 CCR (California Code of Regulations) 93105	"Asbestos" means asbestiforms* of the following minerals: chrysotile (fibrous serpentine), crocidolite (fibrous riebeckite), amosite (fibrous cummingtonite-grunerite), fibrous tremolite, fibrous actinolite, and fibrous anthophyllite. <i>*[It is assumed that the authors of the above entry intended for the word "asbestiforms" to be interpreted as asbestiform varieties of these minerals. This unusual application of the term would probably not be considered appropriate by most workers in the mineralogical community.]</i>
Regulatory	2001	West Virginia Code 16-32-2	Asbestos means the asbestiform varieties of chrysotile (serpentine), crocidolite (riebeckite), amosite (cummingtonite-grunerite), anthophyllite, tremolite and actinolite.
Regulatory	2002	OAR (Oregon Administrative Rules) 340-248-0010	"Asbestos" means the asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, actinolite and tremolite.
Regulatory	2002	105 ILCS (Illinois Compiled Statutes Schools) 105/3	"Asbestos" means the asbestiform varieties of chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 28 1992

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

John W. Kelse
Corporate Industrial Hygienist
R.T. Vanderbilt Company, Inc.
P.O. Box 5150
Norwalk, CN. 06856-5150

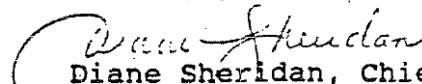
Dear Mr. Kelse:

Your letter of August 21, 1992 to Michael Beard concerning the regulations by the Environmental Protection Agency (EPA) for the Asbestos Hazard Emergency Response Act (AHERA) has been referred to this office for response.

As your letter indicates, the AHERA definition of asbestos is "the asbestiform varieties of: chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonitegrunerite); anthophyllite; tremolite; and actinolite." This is also the definition used in EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos Regulations. EPA does not regulate the non-asbestiform varieties of these minerals. In addition, EPA does not regulate "talc fiber, fibers of mixed mineral assemblage, fiberglass, camel hair or any other fiber or particulate" unless these materials contain asbestos in an amount greater than 1%. These materials would then be defined as "asbestos-containing material" by the AHERA regulations.

I hope this response will answer your inquiry. If you have any further questions, please contact Betty Weiner of my staff on (202)-260-3790.

Sincerely,


Diane Sheridan, Chief
Abatement-Programs Section

Information Circular 8751

Selected Silicate Minerals and Their Asbestiform Varieties

Mineralogical Definitions and Identification-Characterization

By W. J. Campbell, R. L. Blake, L. L. Brown, E. E. Cather,
and J. J. Sjoberg

This current report on asbestos has been prepared by the
Bureau of Mines, U.S. Department of the Interior to—

1. Provide precise nomenclature and information on
selected silicate minerals and their asbestiform
varieties.
2. Invite comment, revisions, or additional information
on the subject.

Please direct communications to the author—

William J. Campbell
Bureau of Mines
College Park Metallurgy Research Center
College Park, Md. 20740



UNITED STATES DEPARTMENT OF THE INTERIOR
Cecil D. Andrus, Secretary

BUREAU OF MINES



JUN 14 2000

Mr. Andrew Schneider
Seattle Post-Intelligencer
PO Box 1909
Seattle, Washington 98111-1909

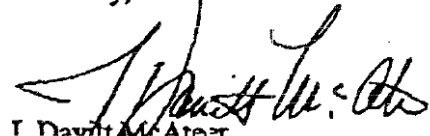
Dear Mr. Schneider:

I need to ask you to correct a quote incorrectly attributed to me in your article published June 13, 2000, titled "Crayon firms agree to stop using talc."

You and I did discuss a laboratory report concerning four bulk samples taken on February 16, 2000, at R. T. Vanderbilt Company's Balmat Mining Operations. The report, a copy of which you had, stated -- and I reiterated -- that the samples were 60, 30, 20 and 50 percent "Talc (Containing Asbestos)." I did not say that the "samples contained asbestos ranging from 20 percent to 50 percent." In fact, the abbreviation "ND" in the laboratory report, directly below the figures quoted, indicates no asbestos fibers actually were found in the samples.

In addition, we have just learned from the Occupational Safety and Health Administration's Salt Lake City laboratory that the description "Talc (Containing Asbestos)" appeared on the laboratory report because of miscoding. We understand that it should have read simply, "Talc." This certainly would make more sense in that no asbestos actually was identified in these samples. They are preparing a revision.

Sincerely,


J. Davitt McAteer
Assistant Secretary for
Mine Safety and Health

Asbestos in Crayons

In 2000 news stories reported asbestos existed in crayons – cleavage fragments were being called asbestos – hysteria ensued

Tuesday, May 30, 2000

This scanning electron micrograph (click to see larger image) is a representative example of the asbestos found in the crayons analyzed by Lab/Cor for the Post-Intelligencer. The fiber shown has a length of nearly 22 microns and a width of almost 3.4 microns, said Dr. Robert Fisher, president and chief scientist at Lab/Cor. This length-to-width ratio of 6.4 to 1 means that according to EPA protocol, this fiber must be counted as asbestos under the agency's regulation. Chemical examination confirmed the fiber was tremolite.



From Reference 82



Federal Register

Friday,
February 29, 2008

Part IV

Department of Labor

Mine Safety and Health Administration

30 CFR Parts 56, 57, and 71
Asbestos Exposure Limit; Final Rule

to its PCM results to determine exposure to these same six asbestos minerals. Exposure of miners to these asbestos minerals, at the same concentrations and length of exposures as workers in other industries, can be expected to result in the same disease endpoints as quantified in OSHA's risk assessment. (See section II.C and II.D of this preamble and chapter III of the REA.)

Some commenters also expressed concern regarding the health risks of fibrous minerals that are not currently regulated under MSHA's existing standards and suggested that MSHA conduct a new risk assessment to include them. MSHA considered these comments and determined that a new risk assessment is not necessary for this final rule, since fibrous minerals that are not currently regulated under MSHA's existing standards are beyond the scope of this rulemaking.

Some commenters stressed the lack of asbestos-related disease among miners in studies conducted at gold, taconite, and talc operations where there was asbestos contamination in the ore. In developing this final rule, MSHA considered a number of environmental and epidemiological studies conducted at mining operations. These studies demonstrated adverse health effects among miners consistent with exposure to asbestos in other workers. Researchers have found excessive incidence of asbestos-related disease in miners at a vermiculite mining operation.⁴³ Studies of talc miners have shown excess lung cancer and non-malignant respiratory disease.⁴⁴ Researchers are now studying excessive mesotheliomas among iron miners in northeastern Minnesota to determine the source of the asbestos exposure.

Section VI of this preamble contains a summary of MSHA's findings from applying OSHA's quantitative assessment of risk to the mining industry. MSHA's *Regulatory Economic Analysis* (REA) contains a more in-depth discussion of the Agency's methodology and conclusions. MSHA placed the REA in the rulemaking docket and posted it on the Asbestos Single Source Page at <http://www.msha.gov/asbestos/asbestos.htm>. MSHA also placed OSHA's risk assessment in its rulemaking docket.

C. Characterization of the Risk to Miners

After reviewing the evidence of adverse health effects associated with exposure to asbestos, MSHA evaluated that evidence to ascertain whether

exposure levels currently existing in mines warrant regulatory action. The criteria for this evaluation are established by the Federal Mine Safety and Health Act of 1977 (Mine Act) and related court decisions.⁴⁵

Section 101(a) of the Mine Act requires MSHA " * * * to develop, promulgate, and revise * * * improved mandatory health or safety standards for the protection of life and prevention of injuries in coal or other mines." Further, section 101(a)(6)(A) provides that—

The Secretary, in promulgating mandatory standards dealing with toxic materials or harmful physical agents under this subsection, shall set standards which most adequately assure on the basis of the best available evidence that no miner will suffer material impairment of health or functional capacity even if such miner has regular exposure to the hazards dealt with by such standard for the period of his working life.

Section 101(a)(6)(A) also requires that MSHA base its health and safety standards on " * * * the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws." As discussed in section VLB, a 0.1 f/cc TWA PEL for asbestos is technologically and economically feasible.

Based on court interpretations of similar language under the Occupational Safety and Health Act, MSHA has addressed the following three questions:

(1) Do the health effects associated with asbestos exposure constitute a "material impairment" to miner health or functional capacity? Miners exposed to asbestos are at risk of developing lung cancer, mesotheliomas, and other cancers, as well as asbestosis and other nonmalignant respiratory diseases.⁴⁶ These health effects constitute a "material impairment of health or functional capacity."

(2) Are exposed miners at significant risk of incurring any of these material impairments? Based on OSHA's risk assessment, MSHA has determined that a significant health risk exists for miners exposed to asbestos at MSHA's existing 8-hour TWA PEL of 2 f/cc. Over a 45-year working life, exposure at this level can be expected to result in a 6.4 percent incidence of cancer (lung cancer, mesotheliomas, and gastrointestinal cancer) and a 5.0 percent incidence of asbestosis.

(3) Will this final rule substantially reduce such risks? By lowering the 8-

hour TWA PEL to 0.1 f/cc, MSHA will reduce the risk of asbestos-related cancers from 6.4 percent to 0.34 percent and the risk of asbestosis from 5.0 percent to 0.25 percent. MSHA considers this reduction to be substantial.

V. Section-by-Section Analysis of Final Rule

The final rule is substantively the same as the proposed rule. To make the standard easier to read, however, MSHA has divided the requirements in the final standards into three paragraphs: *Definitions*, *Permissible Exposure Limits (PELs)*, and *Measurement of Airborne Fiber Concentration*. For §§ 56/57.5001(b), the metal and nonmetal asbestos standards, MSHA designated the paragraphs (b)(1), (b)(2), and (b)(3). For § 71.702, the coal asbestos standard, MSHA designated the paragraphs (a), (b), and (c).

A. §§ 56/57.5001(b)(1) and 71.702(a): *Definitions*

The final rule, like the proposal, makes no substantive changes to the definition of asbestos in MSHA's existing standards. MSHA's existing definition of asbestos is consistent with the regulatory provisions of several Federal agencies including EPA, OSHA, and CPSC, among others. Asbestos is not a definitive mineral, but rather a generic name for a group of minerals with specific characteristics. MSHA's existing standards state that, "when crushed or processed, [asbestos] separates into flexible fibers made up of fibrils" [§§ 56/57.5001(b)]; and "does not include nonfibrous or nonasbestiform minerals" (§ 71.702). Although there are many asbestiform minerals,⁴⁷ the term asbestos in MSHA's existing standards and this final rule is limited to the following six:⁴⁸

- Chrysotile (serpentine asbestos, white asbestos).
- Cumingtonite-grunerite asbestos (amosite, brown asbestos).
- Crocidolite (riebeckite asbestos, blue asbestos).
- Anthophyllite asbestos (asbestiform anthophyllite).
- Tremolite asbestos (asbestiform tremolite).
- Actinolite asbestos (asbestiform actinolite).

Like the proposal, the final rule makes several clarifying changes to the existing regulatory language. They have no impact on the minerals that MSHA regulates as asbestos. This more precise

⁴³ Sullivan, 2007.

⁴⁴ NIOSH (HETA/MHETA), 1990; NIOSH (Technical Report), 1990.

⁴⁵ *Industrial Union Department, AFL-CIO v. American Petroleum Institute*, 448 U.S. 607, 100 S.Ct. 2844 (1980) ("Benzene case").

⁴⁶ American Thoracic Society, 2004; Delpierre et al., 2002.

⁴⁷ Leake et al., 1997; Meekar et al., 2003.

⁴⁸ ATSDR, p.136, 2001; NIOSH Pocket Guide, 2003.



United States Department of the Interior

DEC 02 1978

BUREAU OF MINES
2401 E STREET, NW.
WASHINGTON, D.C. 20241

IN REPLY REFER TO:

EBM-AD/MMSDA-MMM-NM

December 5, 1978

Mr. Jackson Beaman
Continental Minerals Corporation
1300 Southwest Fifth Avenue
First National Bank Tower, Suite 3344
Portland, Oregon, 97201

Dear Mr. Beaman:

This is in answer to your telephone inquiry about the relationships of talc, tremolite, and asbestos. These relationships are fairly involved, so I will attempt to be accurate without being too "technical."

First, talc is a discrete and unique mineral, but is always an alteration product of other, preceding minerals.

Second, the alteration is never complete, and some of both the preceding minerals and other alteration products are found in and near the talc. Three of the minerals commonly found closely associated with talc are serpentine, tremolite, and anthophyllite. Separation of these from talc is very difficult, so most talc sold contains some of them.

Third, these three minerals are among those that can, but rarely do, naturally occur in the fibrous form and then truly are asbestos. An example of the rarity of asbestos occurrence can be taken from the Quebec, Canada chrysotile (the fibrous form of serpentine) asbestos mines. The material mined there, exclusive of overburden, contains less than 1.5 percent asbestos, and these are the best mines in the world with the most sophisticated fiber recovery techniques. Tremolite asbestos is so rare that there is none available commercially and, to the best of my knowledge, there are only two anthophyllite asbestos mines operating in market economy countries.

Another point--the least desirable grades of asbestos sell for many times the average price of talc. If significant quantities of asbestos were present in an ore they would be recovered and sold.

Note that above I said "naturally occur in the fibrous form." This is extremely important. The Bureau of Mines maintains that only mother nature can make asbestos and nothing man does, such as crushing, grinding, and milling, can make asbestos even if such treatment produces elongate particles of the proper minerals that fit someone's definition of a fiber.

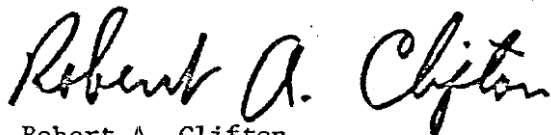
Fourth, tremolite is a very desirable component of talc for ceramic and refractory uses, as it enhances the firing characteristics.

Fifth, analysis for asbestos in a talc sample is expensive, time-consuming, and requires very sophisticated techniques. If the analysis does not demonstrate naturally occurring fibers and that the discrete fibers are asbestos, then it is invalid. Any attempt to regulate worker exposure under the asbestos regulations must demonstrate the presence of asbestos in amounts considered hazardous. Demonstration of the presence of such minerals as tremolite says nothing about the presence of asbestos.

Enclosed you will find a technical treatise on the differences between asbestos and its precursor minerals, Asbestos Minerals and Their Nonasbestos Analogs, given by Sarkis G. Ampian at the Symposium on Electron Microscopy of Microfibers at Pennsylvania State University in 1976.

I hope that this will be of assistance to you and your customers.

Sincerely yours,



Robert A. Clifton
Physical Scientist

Enclosure

11/26/86

U.S. DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
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Dr. Greg Piacitelli
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944 Chestnut Ridge Road
Morgantown, WV 26505-2888

Dear Greg,

I have enclosed xerographic copies of all the organized work I could find that was not directly involved with compliance actions. Of course, the color photos don't give you a great deal of information in black and white. The captions underneath them will in some cases give some interesting insight. Probably the most interesting features are demonstrated by the high resolution electron micrographs. These show typical industrial talcs and anthophyllite. Anthophyllite shows major regularity and fairly constant double chain structure typical of amphiboles. The fibers seen in the industrial talc show a great disorder. The only major regularity is the 9 angstrom repeat from partial 1-tuple unit to the next. It is probably here in this feature that the discrepancies found in other analyses are born. It is only by a combined optical/electron optical approach can the nature of the intermediate fibers be determined. Even at that, they defy definite description.

In general, the Vanderbilt products that we have examined contain the minerals stated in the MSDS's. The controversy emerges when mineralogical definitions are or are not applied to the particles resulting after the material has been crushed to the final material. Asbestos as a mineralogical term applies to fibers of a mineral which grew naturally that way. As a legal term it has come to mean any particle which is three time longer than it is wide. This rule applies equally to chrysotile and dimension lumber. The minerals present in industrial talcs especially tremolite and anthophyllite as they currently are found are not mineralogically fibrous for the most part. They are not "asbestos" mineralogically speaking. These minerals are members of a group of similar minerals called the amphibole family. Amphiboles as well as other minerals tend not to occur in the same habit (crystal growth pattern) all of the time. That is, sometimes a mineral will be a fiber, sometimes it will be acicular, sometimes tabular sometimes massive; depending on where and under what conditions the mineral crystallized. It is in every case still essentially the same mineral. Sometimes, different names have been given to the various habits. (e.g. riebeckite = massive and crocidolite = fibrous varieties of the same mineral). For some minerals the same name applies regardless the habit. Specifically, this is the case for three of the minerals covered under the OSHA asbestos standard: tremolite, actinolite and anthophyllite.

Materials tend to break along the directions of least resistance to parting. In the amphiboles, there is a direction along which there is very little resistance to parting compared with other directions in the crystal. This direction happens to be parallel to the direction of growth in the

asbestos varieties of the same mineral. When crushed, easy parting leads to particles of mineral which are elongated. In phase contrast microscopy, for particles less than about 1 micrometer in diameter, a differentiation whether or not an individual particle is mineralogically asbestos is not possible in general. The morphology for most larger particles is usually sufficiently distinct that a determination can be made. These particles are much more blunt, lacking the "bundle of sticks" effect, lacking splintered ends etc. In large ensembles of particles from asbestos vs non-asbestos forms it is possible to derive differences in the average aspect ratio or in the direction of repose in zero degree selected area diffraction patterns. It is not wise to consistently apply these tests on individual fibers.

The above discussion applies to the tremolite and anthophyllite that is present in the products. Please do not get lost in the technical nature of that discussion. It tends to obscure some really startling observations. When one looks at the industrial talcs in the microscope, he sees large numbers of particles that are much longer than 20 to 1 even to nearly 100 to 1 in aspect ratio. The first reaction is to say these are the asbestos fibers of tremolite and anthophyllite indicated by the known presence of those minerals in the products. Unfortunately, this is a false assumption. They are for the most part fibers of industrial talc. They have been dubbed intermediates by us, as talcboles by Malcom Ross and fibrous biopyriboles by David Veblen. What they are not is anthophyllite or tremolite.

. Polarized light microscopy has shown these fibers to have indices of

refraction in the range for talc (dispersion staining). They have been shown to have an average maximum angle of extinction of approximately 11 degrees compared with 0 degrees for anthophyllite and 17-22 degrees for tremolite. More surprising still are some fibers that on one end have dispersion colors for anthophyllite and on the other end colors consistent with talc. Light microscopy tends to eliminate these fibers as one of the minerals covered by the OSHA standard. Compare this with what we find for electron microscopy.

Standard analysis of these materials by electron microscopy shows that the same fibers we called non-anthophyllite by light microscopy should be called anthophyllite. Semi-quantitative chemistry and selected area diffraction based on layer-line measurement or rough indexing matches anthophyllite. The fibers seen do show splintering, do show elongated aspect ratio. By electron microscopy alone, it should be concluded that the fibers are indeed anthophyllite. There is an error of logic here.

It is usually assumed that all there is present are the minerals stated in the MSDS or by private x-ray diffraction. The fault can be corrected when the analyst realizes that in this particular mineral, the deposit was anthophyllite at one time. Nature has begun transforming this deposit to the mineral talc. The particular mechanics of this are beyond the scope of this letter. Suffice it to say that it is being done in such a way as to leave the more major structure of the anthophyllite fibers intact while transforming them to talc. This residual structure has given rise to electron diffraction patterns that mimic amphibole patterns. Very careful measurement

and calibration of these patterns reveal subtle strains in the structure leading to a mineral with similar features to talc and to anthophyllite and yet the numbers fall in between. Energy dispersive analysis by X-rays (EDX) shows a similar result. Both talc and anthophyllite have a magnesium silicate structure. Anthophyllite has 7 magnesium or magnesium replacing atoms for every 8 silicon or silicon replacing atoms. For talc the ratio is 6 Mg to 8 Si when appropriately normalized. This is a very small difference to try to quantify. Most laboratories don't try. We looked at an ensemble of known anthophyllite fibers and an ensemble of known talc particles. From the data thus obtained, we were able to show that the fibers found in the Vanderbilt talcs we looked at were mostly in the range between talc and anthophyllite. As a side note, there was insufficient calcium found in any of the very fibrous particles to allow the tentative identification of tremolite such as has been offered by some groups. We found an average of approximately 0.2 atomic units per 8 silicon atoms. This is lower than the 1.34 atoms required by the definitions accepted by the American Mineralogical Society.

In order to elucidate the structure, we then began to look at fibers of the material with High resolution electron microscopy. I have included with this letter some copies of representative photographs. The truth of the intermediate nature for these fibers is immediately apparent. The photos of the standard anthophyllite fibers show a mostly regular pattern of "double-chain" repeats. (The small spots are believed to be silicon atom positions in these photos). The double chain consists of one bright line with one lesser line. Please study these photos in comparison to those provided.

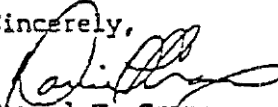
for the industrial talc fibers. Note that there is a great irregularity to these patterns. There are some areas where an amphibole pattern is observed. There are areas where a broader expanse of single chains occur and other places where there are n-tuple chains. There is no long range order here. Note however, that the long chains are all about 9 angstroms apart regardless whether they are part of a double chain, single or a multiple construct.

I have described these other fibers because they are the fibers with the closest morphological similarity to asbestos. They do have splintering and bundle of sticks and frayed ends as characteristics. These are characteristics which we often ascribe to truly asbestiform minerals. All the samples we have examined have been crushed prior to our receiving them. Therefore, we cannot say whether they grew in nature as asbestos fibers. They do look like asbestos and if morphology is the major role in toxicity or carcinogenicity these should be considered more important than the non-fibrous cleavage fragments of tremolite or anthophyllite. My purpose is not to discuss epidemiology but rather give a short explanation of some of the conclusions we have come to from years of studying the mineralogy and microscopical properties of Vanderbilt fibers. I conclude by stating simply that all the products we have investigated have shown elongated cleavage fragments of tremolite and anthophyllite having aspect ratios in excess of 3:1. We have found, in addition, a class of fiber present in the products which is intermediate in nature between talc and anthophyllite. In investigating these we have seen on occasion a fiber that would be called anthophyllite. Notwithstanding this, the bulk of truly fibrous particles fall

into this intermediate class.

There is much more that could be said about what we have found but this letter should cover the major points. Should you have any questions or wish to discuss it further, I am at your service.

Sincerely,

 11-26-84
Daniel T. Crane
Supervisory Physical Scientist
Microscopy Branch

cc Amanda Edens (OSHA)

MISHA Mine Safety and Health Administration
Department of Labor



Pittsburgh Safety and Health Technology Center Laboratory
Cochrans Mill Road, Building 38, Pittsburgh, PA 15236
Phone: 412-386-6893 Fax: 412-386-6948
COLLECTOR:

AR#: MACKEN
FIELD OFFICE NAME: 9158
ADDRESS: Geneva, NY
636 West Washington Street
Geneva, NY 14456
DISTRICT OFFICE NAME: Northeastern
ADDRESS: Geneva, NY 14456

REMARKS:
TIME SAMPLED:
LOCATION/SITE:
FLOW RATE: 2.0

ANALYTICAL REPORT

Report ID: AR0010221448
Page 1 of 1
Date Printed: Monday, October 22, 2001

MINE ID: 3000610
CONTRACTOR: BALMAT MINING OPERATIONS
MINE NAME: Tale Mining
COMPANY: August 17, 2001
COMMODITY: August 27, 2001
DATE SAMPLED:
DATE RECEIVED:
DATE ANALYZED:

COPY

LAB ID #	FIELD Sample No	Type of Sample	INSTR \ METHOD	ANALYTE	Concentration	TLV STEL	Error Factor	TLV*EF	C/E
2001031246	A	Bulk		ASBESTOS, BULK	ND				
2001031246	A	Bulk		ASBESTOS, TEM	ND				
2001031247	B	Bulk		ASBESTOS, BULK	ND				
2001031247	B	Bulk		ASBESTOS, TEM	ND				
2001031248	C	Bulk		ASBESTOS, BULK	ND				
2001031248	C	Bulk		ASBESTOS, TEM	ND				

RESULT COMMENT (Deviation or Modification)

Data apply only to the listed analyte for the specified sample. This report is intended only for the entity to which it is addressed. Calculations based on parameters received.

MDL Method Detection Limit
LOQ Limit of Quantitation
TLV Threshold Limit
STEL Short Term Exposure Limit
ND Not detected above MDL

ANALYZED BY: KLEIN-BARB
APPROVED BY:

SUPERVISOR NAME: Mark H. Wesolowski
SUPERVISOR TITLE: Supervisor
SIGNATURE: *Mark H. Wesolowski*

Asbestos Fiber
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration

Mine ID Number	Date of Sample(s)	Type of Sample
30-00611	2/6/85	<input type="checkbox"/> Screening <input checked="" type="checkbox"/> Personal Exposure
Mine Name	Company Name	Address
No. 1 Mine and No. 1 Mill	Gouverneur Talc Company, Inc.	P.O. Box 89, Gouverneur, NY 13642

Name and Social Security Number	Occupation and Location	Sample Number	Time of Sample	Sampling Time (min)	Occupancy Time (min)	Sample Concentration (fibers/cm ³)	SWA or TWA* (fibers/cm ³)	Exposure Limit (fibers/cm ³)	Comments
Gary Hopper	Crusher operator 700 and 1100 level	A-17	0720-0905	105		.736			
		A-16	0905-1100	115		Too heavy to count			
		A-10	1100-1243	103		1.501			
		A-15*	1243-1355	72		2.437			
		A-23	1355-1440	45		1.564			
				Full shift		.99	2.00		
*Fiber identification	indicated <u>no asbestos found</u> on sample No. A-15								

MSHA Form 4000-25, Oct. 81 (revised)

*Circle calculation method used

Asbestos Fiber
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration

Mine ID Number	Date of Sample(s)	Type of Sample	
30-00611	7/16/85	<input type="checkbox"/> Screening	<input checked="" type="checkbox"/> Personal Exposure
Mine Name	Company Name	Address	
No. 1 Mine and No. 1 Mill	Gouverneur Talc Company, Inc.	P.O. Box 89, Gouverneur, NY 13642	

Name and Social Security Number	Occupation and Location	Sample Number	Time of Sample	Sampling Time (min)	Occupancy Time (min)	Sample Concentration (fibers/cm ³)	SWA or TWA* (fibers/cm ³)	Exposure Limit (fibers/cm ³)	Comments
Ronald Holly	#3 Bagger	A102	0645-0815	95		1.210			
		A104	0815-0937	82		1.874			
		A106	0937-1046	69		2.040*			
		A108	1046-1225	99		1.371			
		A111	1225-1345	80		1.903			
		A112	1345-1500	75		2.075*			
					FULL SHIFT		1.78	2.00	
	* Fiber identification indicates that no asbestos was found on these two filters, therefore, the concentration is zero.								

Mineral Fiber
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration

Mine ID Number 30-00611	Date of Sample(s) 6/26/84	Type of Sample <input type="checkbox"/> Screening <input checked="" type="checkbox"/> Personal Exposure
Mine Name No. 1 Mine and Mill	Company Name Gouverneur Talc Company, Inc.	Address P.O. Box 89, Gouverneur, NY 13642

Name and Social Security Number	Occupation and Location	Sample Number	Time of Sample	Sampling Time (min)	Occupancy Time (min)	Sample Concentration (fibers/cm ³)	SWA or TWA* (fibers/cm ³)	Exposure Limit (fibers/cm ³)	Comments
Herb McEataron	No. 2 Packer No. 1 Mill	T 262	0650-0815	85		.863			
		T 264	0815-0922	67		1.760			
		T 270	0922-1013	51		1.632			
		T 268	1013-1105	52		1.163			
		T 274	1105-1143	38		1.591			
		T 272	1143-1313	90		1.079			
		T 266	1313-1407	54		1.597			
		T 279	1407-1453	46		*2.176			
					Full shift			1.41	2.00
Sample identified, results indicated no asbestos.									

Form 4000-25, Oct. 81 (revised)

*Circle calculation method used

Mineral Field
Sampling Results

Department of Labor
Mine Safety and Health Administration

Mine ID Number: 30-00611 Date of Sample(s): 2/6/85 Type of Sample: Screening Personal Exposure

Mine Name: No. 1 Mine and No. 1 Mill Company Name: Gouverneur Talc Company, Inc. Address: P.O. Box 89, Gouverneur, NY 13642

Name and Social Security Number	Occupation and Location	Sample Number	Time of Sample	Sampling Time (min)	Occupancy Time (min)	Sample Concentration (fibers/cm ³)	SWA or TWA* (fibers/cm ³)	Exposure Limit (fibers/cm ³)	Comments
Tom Rogers	Scraperman - 23A & 24 Stopes, 500 level	A-37	0715-0925	130		1.281			
		A-49	0925-1125	120		1.197			
		A-32	1125-1340	135		1.116			
		A-44*	1340-1452	72		2.216			
				Full Shift		1.29	2.00		
*Fiber identification	Indicated <u>no asbestos</u> found on sample No. A-44								

Asbestos Fiber
Sampling Results

U. S. Department of Labor
Mine Safety and Health Administration

Mine ID Number	Date of Sample(s)	Type of Sample
30-00611	7/17/85	<input type="checkbox"/> Screening <input checked="" type="checkbox"/> Personal Exposure
Mine Name	Company Name	Address
No. 1 Mine and No. 1 Mill	Gouverneur Talc Company, Inc.	P.O. Box 89, Gouverneur, NY 13642

Name and Social Security Number	Occupation and Location	Sample Number	Time of Sample	Sampling Time (min)	Occupancy Time (min)	Sample Concentration (fibers/cm ³)	SWA or TWA* (fibers/cm ³)	Exposure Limit (fibers/cm ³)	Comments
Greg Carr	Crusher Operator Mill	A115	0640-0842	122		1.032			
		A116	0842-1045	123		.902			
		A119	1045-1142	57		2.730*			
		A121	1142-1255	73		1.561			
		A122	1255-1420	85		1.901*			
			FULL SHIFT				1.39	2.00	
* Fiber identification indicates that <u>no asbestos was found</u> , therefore, the concentration is zero.									

Sampling Results

U. S. Department of Labor
 Mine Safety and Health Administration



Mine ID Number: 30-00611 Date of Sample(s): 6/26/84 Type of Sample: Screening Personal Exposure

Mine Name: No. 1 Mine and No. 1 Mill Company Name: Gouverneur Talc Company, Inc. Address: P.O. Box 89, Gouverneur, NY 13642

Name and Social Security Number	Occupation and Location	Sample Number	Time of Sample	Sampling Time (min)	Occupancy Time (min)	Sample Concentration (fibers/cm ³)	SWA or TWA* (fibers/cm ³)	Exposure Limit (fibers/cm ³)	Comments
Ron Hollow	No. 3 Packer No. 1 Mill	T 261	0650-0815	85		1.213			
		T 265	0815-0920	Too heavy to		count			
		T 275	0920-1010	50		2.20			
		T 269	1010-1102	52		2.726			
		T 273	1102-1140	38		*3.156			
		T 271	1140-1305	85		1.271			
		T 267	1305-1400	55		2.199			
		T 280	1400-1453	53		2.740			
			Full shift				1.77	2.00	
*Sample identified, results indicated no asbestos									

*Form 4000-25, Oct. 81 (revised)

*Circle calculation method used

October 29, 2004

Ms. Nora Grimbergen, Esquire
Hoagland, Longo, Moran, Dunst & Doukas, L.L.P.
40 Paterson Street
New Brunswick, New Jersey 08903

Dear Ms. Grimbergen:

I have studied the occurrence, properties, and human health effects of minerals and mineral commodities for almost the entire time period for the past 40-years. Among the mineral commodities that I studied were the asbestos minerals, industrial grade talc, consumer talcum products, silica and titania polymorphs, vermiculite, amphibole cleavage fragments, palygorskite, attapulgite, sepiolite, and wollastonite. I have studied talc samples obtained from the R.T. Vanderbilt mine in New York State over this time period as well. My recent studies have focused on recognition (communication) of chemical functionalities on the surfaces of minerals with receptors on mammalian cells.

My studies of the Vanderbilt talc deposit in New York State have included many techniques employed in the study of mineral deposits, including light optical (polarized light microscopy) and electron optical (transmission and scanning microscopy) techniques, crystal spectrometry (electron microprobe) and energy dispersive spectrometry chemistry techniques, electron diffraction studies, and both continuous-scan and step-scan x-ray diffraction techniques. I know much about the mineralogy of this deposit and the nature of the minerals that made up its NYTAL products that entered commerce in the United States over the past several decades.

Based on my studies over the many years I failed to find asbestos minerals, of any form, in that talc. Both tremolite and anthophyllite occur as prismatic cleavage fragments of crushed massive mineral, anthophyllite occasionally occurs as intergrowths with talc, talc forms both plate and fiber (either ribbons or structural intergrowths with one of the amphibole forms present) in the deposit. Even the talc from that deposit exists in the triclinic crystallographic form rather than the monoclinic form usually described for that mineral. This last comment is included to underscore that what has been stated repeatedly in the literature might be incorrect. Tremolite and anthophyllite exist not as asbestiform minerals but rather as elongate fragments produced by the milling process. They are cleavage fragments.

It is important to note that as techniques evolved over the past 20-years or so, and research into the nature of asbestos fibers progressed, many of the statements regarding the occurrence of asbestiform minerals in RTV talc had to be modified. I speak for myself now. What was considered to be asbestos a generation ago is rightly considered standard non-asbestos mineral today. OSHA's most recent asbestos standard correctly reflects this position.

Experimental data, and epidemiological data obtained on workers from the RTV deposit, have failed to show that a problem exists concerning exposure to dust generated from this talc and risk of excess cancers (especially mesothelioma).

Based on this constellation of factors, including those mineralogical, experimental, and epidemiological, I would conclude that the probability that talc products from this deposit are capable of producing mesothelioma in humans roughly approximates zero. I cannot state never as this implies existence of proof of a negative.

If you have any question concerning any of the above statements please do not hesitate to contact me.

Sincerely,

Arthur M. Langer Ph.D.

CURRICULUM VITAE

Arthur M. Langer, Ph.D.

CURRENT POSITION: Director, Environmental Sciences Laboratory of the Institute of Applied Sciences, Brooklyn College of the City University of New York, Brooklyn, NY 11210.

ADDRESS:

Office: Environmental Sciences Laboratory
Ingersoll Hall
Brooklyn College of the City University of New York
Brooklyn, NY 11210
(718) 859-6924

Home: 6 Rochambeau Drive
Hartsdale, NY 10530
(914) 428-3667

DATE OF BIRTH: February 18, 1936

PLACE OF BIRTH: New York, NY

ACADEMIC DEGREES:

B.A., Geology, Hunter College-CUNY, New York, NY, 1956.
M.A., Petrology (Geology), Columbia University, New York, NY, 1962.
Ph.D., Mineralogy (Geology), Columbia University, New York, NY, 1965.

PREVIOUS POSITIONS:

Associate Professor, Center for Polypeptide and Membrane Research, Mount Sinai School of Medicine, New York, NY 1986-1988.
Associate Professor, Mineralogy, Department of Community Medicine, Mount Sinai School of Medicine, New York, NY, 1968-1986, 1987-1988.
Ph.D., Graduate Faculty, Program: Earth and Environmental Sciences, City University, New York, NY, 1982-present.
Science Administrator, Environmental Sciences Laboratory, Mount Sinai School of Medicine, New York, NY, 1983-1984.
Research Associate, Department of Mineral Sciences, American Museum of Natural History, New York, NY, 1979-present.
Associate Director, Environmental Sciences Laboratory, Mount Sinai School of Medicine, New York, NY, 1969-1986.
Head, Physical Sciences Section, Environmental Sciences Laboratory, Mount Sinai School of Medicine, New York, NY, 1969-1986

PREVIOUS POSITIONS (cont):

Adjunct Associate Professor, Mineralogy, Graduate Division,
City University of New York, NY, 1968-1969.
Assistant Professor, Mineralogy, Department of Community
Medicine, Mount Sinai School of Medicine, New York, NY,
1967-1968.
Research Associate, Environmental Medicine, Department of
Medicine, Mount Sinai Hospital, New York, NY, 1965-1967.
Lecturer, Geology, City College of City University of New
York, NY, 1964-1965.
Research Assistant, Mineralogy, Department of Geology,
Columbia University, New York, NY, 1961-1964.
Teaching Assistant, Economic Geology, Department of Geology,
Columbia University, New York, NY, 1959-1960.
Teaching Assistant, Department of Geology, Columbia College,
New York, NY, 1958-1959.
Field Assistant, Geology, Beartooth Mountains, MT, Columbia
University, 6/57-8/57.
Field Assistant, Geology, Beartooth Mountains, MT, Columbia
University, 6/58-8/58.
Exploration Geologist, Rosario Exploration Chibougamau
Mining and Smelting, 6/56-8/56.
Consulting Mineralogist, Columbia University, New York, NY:
-TAMS Dam site, East Pakistan, WHO, 1960 (with Professor
Fairbridge).
-Consulting Mineralogist, American Metals Climax, 1961
(with Professor Kerr).
-Consulting Mineralogist, Creole Oil Company, 1962 (with
Professor Kerr).
-Tidewater Oil Company, 1962 (with Professor Kerr).
-Texas Gulf Sulphur Company, 1965 (with Professor Kerr).

FELLOWSHIPS:

Research Mineralogist, Department of Geology, Columbia
University, New York, NY. Sponsored by the U.S. Air
Force Cambridge Research Laboratories under the direction
of Prof. P.F. Kerr, 3/61-9/63.

MEMBERSHIPS AND OTHER PROFESSIONAL ACTIVITIES:

Fellow, Geological Society of America.
Fellow, Mineralogical Society of America.
Fellow, New York Academy of Sciences.
Fellow, Collegium Ramazzini.
Geochemical Society.
American Association for the Advancement of Science.
Electron Microprobe Society of America.
Sigma Xi, Kappa Chapter (Honorary Scientific).
International Association of Bioinorganic Scientists.

HONORS AND AWARDS:

Honors, Department of Geology, Hunter College, New York, NY, 6/56.
Sigma Xi, Kappa Chapter, Columbia University, New York, NY, 9/64.
Dust Research, Polachek Foundation Award, 9/65-6/67.
Career Scientist Award, National Institute of Environmental Health Sciences, 6/69-5/74.
Phi Beta Kappa, Nu Chapter, Hunter College, New York, NY, 6/77.
Hunter College Hall of Fame HC-CUNY, 6/78.
Biography in: American Men of Science: Who's Who in the East.
Elected Fellow, Collegium Ramazzini, 1983.

EXPERT CONSULTANT:

Environmental Protection Agency, Superfund Cases, 3/85-Present.
National Institute for Occupational Safety and Health, 6/75-Present.
National Institute for Environmental Health Sciences, 4/75-Present.
Environmental Protection Agency, 6/75-Present.
National Heart, Lung and Blood Institute, 6/75-Present.
National Institutes of Health, Section of Grants, 6/74-Present.
World Health Organization, Geneva, Biomedical Expert, 6/75-Present.

GRADUATE THESES:

Geology of the Manhattan Formation. Submitted in partial fulfillment for the degree of Master of Arts, in the faculty of Pure Science, Columbia University, NY, p. 132, 1962.
Mineralogy and Physical Properties of Mojave Desert Playa Crusts. Submitted in partial fulfillment for the degree of Doctor of Philosophy, in the faculty of Pure Science, Columbia University, NY, p. 155, 1965.

EDITORIAL BOARD SERVICE:

Assistant Editor, Environmental Research, 1978-1985.
Advisory Editor, Environmental Research, 1985-1987.
Assistant Editor, American Journal of Industrial Medicine, 1980-1985.
Associate Editor, American Journal of Industrial Medicine, 1985-1986.
Editorial Review Board, Journal of Environmental Pathology and Toxicology, 1978-1982.

EDITORIAL BOARD SERVICE (cont):

Editorial Advisory Board, Advances in Modern Environmental Toxicology, 1981-1982.
Editorial Review Board, Journal of Environmental Pathology Toxicology and Oncology, 1983-Present.

REVIEW MANUSCRIPTS (Journals other than those cited above):

Journal of Histochemistry and Cytochemistry.
Pharmacology Reviews.
American Chemical Society Reviews.
Annals New York Academy Sciences.
Science (AAAS).
SEM-IITRI Symposia.
Lung.
American Review of Respiratory Diseases.
American Mineralogist.
Clay Minerals Society (Clays and Clay Minerals).
Canadian J. Fisher Aquatic Sciences.
Journal National Cancer Institute.
American Journal Pathology.
Annual Meeting SEMA.
Chest.
Laboratory Investigations.
Journal of the American Medical Association.
New England Journal of Medicine.
Toxicology In Vitro.

REVIEW AND AUTHOR FEDERAL, INDUSTRY DOCUMENTS (1978-PRESENT):

NIOSH Fibrous Glass Criteria Document, 1978.
NIOSH Talc Criteria Document, 1979.
OSHA Fiber Manuscript (Definitions, Nomenclature, Properties), 1980.
ALOSH Mineralogy Manuscripts (Occupational Lung Disease), 1979-1980.
Report on Tobacco and Asbestos Interaction, Commercial Union Insurance, 1982.
Environmental Protection Agency, Office of Pesticides and Toxic Substances-Asbestos in Buildings Guidance Documents; Guidance Documents; Operations and Maintenance Programs.
Surgeon General's Report: Cancer and Chronic Lung Disease in the Workplace: The Health Consequences of Smoking, 1985.

INTERNATIONAL COMMITTEES AND CONSULTATIONS (1979-PRESENT):

- US-Japan Cooperative Science Program Working Group on Air Pollution and Health. NIEHS-Institute of Health, Japan, February, 1969.
- International Agency for Research on Cancer, WHO Development of V.14 Chemical Carcinogenesis Monograph Series, Evaluation of Carcinogenic Risk of Chemicals to Man: Asbestos. Member of working group, Lyon, France, 1976.
- International Association of Geochemistry and Cosmochemistry, Working Group on the Geochemistry of Health and Disease, 1976-1979.
- Consultant, South African Ministry of Mines, Asbestos Symposium, Johannesburg, South Africa, 1977.
- Consultant, Institute of Public Health, Norway, Microscopy Facility, Oslo, Norway, 1977.
- Consultant, International Metalworkers Federation, Problems Focusing on Asbestos Contamination of Nickel Ores, Geneva, Switzerland, 1980.
- Research Consultant, Societe Nationale de l'Amiante, Quebec, Canada, Work on Modified Fiber, 1984.
- WHO-International Program on Chemical Safety (IPCS), Environmental Health Criteria Document on Asbestos and Other Natural Mineral Fibers, Section Chairman, Hanover, Federal Republic of Germany, 1985.
- Organizing Committee, Third International Conference, In Vitro Effects of Mineral Dusts, Schluchsee, Federal Republic of Germany, 1984.
- Societe Nationale de l'Amiante, Consultant, Modified Fiber and the Environmental Protection Agency Asbestos Ban, Montreal, Canada, 1986.
- International Agency for Research on Cancer, WHO Development of V.42, Chemical Carcinogenesis Monograph Series, Evaluation of Carcinogenic Risk to Chemicals in Man: Silica and Some Silicates, Member of Working Group, Lyon, France, 1986.
- Consultant, Asbestos Institute, Canada, Organization of Symposium on Biological Effects of Asbestos Substitutes, 1987.
- VIIIth International Pneumoconiosis Conference. International Organizing Committee; Organizer of Session: Hazard Recognition of Mineral Dust. Pittsburgh, PA, August, 1988. Chaired Two Sessions at Meeting: Mineral Recognition by Membranes and Mineral Toxicity; Mineral Fiber and Diseases of the Pleura.
- International Federation of Building and Wood Workers, Conference on Interior Works, Geneva, Switzerland. Presented paper: Hazards in the Painting Trades. Panel on Hazards in the Interior Workplace, May 9-12, 1989.

NATIONAL COMMITTEES, CONSULTATIONS, AND TESTIMONY:

- Food and Drug Administration, Asbestos, Talc, Asbestos Bodies, and Consumer Talcums, Seminar, Washington, DC, June, 1968.
- National Air Pollution Control Administration, Asbestos in Ambient Air. Arlington, VA, June, 1969.
- National Institute for Occupational Safety and Health, USPHS, Asbestos Research in the United States, Cincinnati, OH, January, 1970.
- Food and Drug Administration, Asbestos in Consumer Talcums, Seminar, Washington, DC, August, 1971.
- Environmental Protection Agency, National Air Pollution Control Techniques Advisory Committee, Asbestos Emissions Document, Atlanta, GA, 1971.
- Expert Testimony, Toxic Substances Control Act, 1973.
- Expert Witness, Contamination of Lake Superior, Department of Justice of the United States, 1974.
- NIOSH Task Force on Occupational Respiratory Diseases, 1975.
- National Academy of Sciences, Division of Life Sciences Committee to Evaluate Risk to Low-Level Exposure to Asbestiform Fibers in the Environment, 1982-1984.
- Expert Testimony, Occupational Safety and Health Administration, US Department of Labor, Asbestos Standard, 1984.
- Environmental Protection Agency, HERL, Ad Hoc Committee for the Fibrous Amphibole Study Protocol, Triangle Park, NC, 1976.
- NIEHS-NIOSH-EPA-ERDA. Interagency Retreat and Colloquium. Man-made Vitreous fibers, Asbestos Substitutes and the Energy Crisis. Potential Risks to Health. Pinehurst, NC. 7-9 January, 1976.
- Environmental Protection Agency, HERL, Biological Effects on Fibrous Inorganic Particles, 1977.
- DHHS, Interagency Committee to Coordinate Environmental and Related Problems, Biological Effects of Fibrous Particulates: Serpentine-Containing Host Rocks, Amphibole-Containing Host Rocks, 1980.
- Mount St. Helen's Volcanic Ash: Mineral Nature and Biological Activity, Interagency Task Force, Bethesda, MD, 1980.
- NHLBI, Evaluation of Existing Inorganic Microparticulate Laboratories: Vermont Lung Group, Tulane Occupational Lung Hazards Group, 1978.
- National Institute of Environmental Health Sciences, Workshop, Pathobiology of Mesothelioma, RTP, NC, January, 1983.
- Occupational Safety and Health Administration, Expert to write and review Asbestos Standard-Talc Standard, US Department of Labor, 1983.
- Environmental Protection Agency, Committee Member, Review and Rewrite EPA "Guidance Document for Controlling Friable Asbestos-Containing Minerals in Buildings," 1985.

NATIONAL COMMITTEES, CONSULTATIONS, AND TESTIMONY (cont):

- American Society Testing Materials, Committee, D22-Indoor Air Pollution Asbestos: D22.05-Methodology and Measurement of Fibers in Air. Electron Microscopy, 1985.
- American Society Testing Materials, Organizing Committee, Silica and Silica-Induced Diseases, International Conference, 1985.
- NIOSH, Mine Health Research Advisory Committee Meeting, Tucson, AZ: The Impact of Mineral-Asbestos Definitions on the Mining Industry, 1986.
- Environmental Protection Agency. Develop guidance document for identifying asbestos hazards and implementing abatement programs in public buildings, Washington, DC, April, 1986.
- NIOSH Review Panel for Project "Evaluation of Mesothelioma Production by Asbestos Substitutes." Cincinnati, OH, June, 1986.
- Environmental Protection Agency, Guidance Document for Assessing and Managing Exposure to Asbestos in Building, Arlington, VA, September, 1986.
- Environmental Protection Agency, Operations and Maintenance Programs for Asbestos-Containing Materials in Buildings: A Guide for Building Owners and Managers, Washington, DC, January, 1987.
- Consumer Products Safety Commission. Testified before Commission on Asbestos in Play Sand, Washington, DC, December 7, 1988.
- NIEHS-NIOSH - National Toxicology Program. To formulate study protocol comparing biological activities of asbestiform and non-asbestiform amphibole minerals. NIEHS - Res. Triangle Park, NC, October 11, 1989.
- Occupational Safety and Health Administration, U.S. Department of Labor. Asbestos Standard Revisions. Presented Expert Testimony. April, 1990.
- Health Effects Institute. Asbestos Literature Review Panel. April, 1990 - present.

REGIONAL CONSULTATIONS:

- Health Research Council of New York City, Subcommittee on Asbestos Hazards - Air Pollution Working Corp. Seminar on Asbestos in Construction Products, Rockefeller University, June 9, 1969.
- New York City Board of Education: Asbestos in Schools, 1981-1983.
- New York City Department of Sanitation; Fire Department: Insulation Products, 1979-1983.
- New York State Consumer Affairs and Protection: Construction and Insulation Products, 1980-1983.
- City University of New York-Brooklyn College: Asbestos Problems, 1981-1982.

ACADEMIC COMMITTEES:

Academic Council, Department Representative, MSSM, 1977-1979.
Medical Center Safety Committee, MSSM, 1979-1988.
Chemical Hazards Committee, MSSM, 1979-1988.
Alternate Medical Safety Officer (in absence of Dr. S. Kochwa),
MSSM, 1980-1983.
Space Committee (Department and Institution), MSSM, 1982-1985.
New York Academy of Sciences, Conference Organizing Committee,
1976-1980.
Ad Hoc Reviewer, National Institutes of Health, Minneapolis
Medical Center, 1977.
Ad Hoc Reviewer, National Institutes of Health, Harvard
Medical Center, 1978.
Workshop Organizer and Chairman, Significance of Aspect Ratio
in Asbestos Diseases, New York Academy of Sciences, 1977.
Workshop Organizer, Third International Workshop on In Vitro
Testing of Mineral Dusts, 1984.
Executive Committee, Ph.D. Program, Earth and Environmental
Sciences, City University of New York, 1985-1987.
Curriculum and Examination Committee, Ph.D. Program, Earth and
Environmental Sciences, City University of New York,
1987-Present.
Faculty Membership Committee - Chairman - Ph.D. Program, Earth
and Environmental Sciences, City University of New York,
1989-present.

CONSULTANT:

Cyprus Minerals-Nature of US Talc Deposits, 1979.
General Accident Insurance Company: Asbestos Compensation,
1981.
Gulf Minerals: Modified Chrysotile Fiber, 1982.
Oil, Chemical and Atomic Workers International Union, Safe
Handling of Asbestos, Training Film, 1976.
Lung Center and NHLB-SCOR, in the Departments of Physiology,
Medicine, Pathology, and Engineering in the University
of Vermont, Burlington, VT, 1984.
Societe Nationale de l'Amiante: Phosphorylated Fiber;
Asbestos Substitutes, 1984.
W.R. Grace & Company: Asbestos and Indoor Air Pollution,
1984.
Asbestos Institute of Canada, Asbestos and Asbestos
Substitutes, 1985-1986.
Litigations. Represented numerous plaintiffs, defendants,
insurance carriers, US Department of Justice, Brooklyn
and New York counties' District Attorneys.
R.T. Vanderbilt Company, Nature of Tremolite in the Gouverneur
Talc Deposit, 1987.
Safe Building Alliance, Problems of Asbestos in Buildings,
1987.

CONSULTANT (cont)

Review applications for funding requests: FCAC, Quebec, Canada, 1985.
 Battelle Columbus Laboratories: Analysis of Microparticles by Analytical Electron Microscopy, 1987-1989.

INDUSTRY PROJECT REPORTS:

Chrysotile and chrysophosphate. A comparative study of their physicochemical properties and membrane activities. A report to SNA-Chrysophosphate, Canada. Langer AM, Nolan RP, p. 87, June 1, 1987.

Wollastonite in the pulmonary tissues on animals. A report to Northrop Services Industries, National Toxicology Program. Langer AM, Nolan RP, p. 101, June 15, 1989

Preparation, examination and characterization of mineral standards by analytical electron microscopy. A report to Battelle Columbus Laboratories, Langer AM, Nolan RP, Pooley FD, Gieseke JA, Fisher G, 61 p., December 12, 1989.

Comparison and evaluation of the analytical capabilities of three U.S. laboratories for submicroscopic particulate analysis. A report to Battelle Columbus Laboratories, Langer AM, Nolan RP, Gieseke JA, Fisher G. February, 1991.

PUBLICATIONS IN PEER-REVIEWED JOURNALS: - *approx 60 + numerous other contributions*

1. Kerr Pf, Thomas AM, Langer AM: The nature and synthesis of ferrimolybdate. Am Mineral 48:14-32, 1963.
2. Kerr PF, Langer AM: Mineralogical features of Mojave playa crusts. In: Mineralogy and Hydrology of US Playas. Neal J (ed), US Air Force Cambridge Research Laboratories Environmental Research Paper No. 96, pp. 31-72, 1965.
3. Langer AM, Kerr PF: Experimental variables influencing DTA curves of kaolinite. Dupont Thermogram 3:1-4, 1966.
4. Langer AM: Older paleozoic metamorphism and pegmatization in Bronx, New York. Ann NY Acad Sci 136:1-32, 1966.
5. Langer AM, Kerr PF: Mojave Desert playa crusts: physical properties and mineral content. J Sed Patrol 36:377-396, 1966.
6. Langer AM, Kerr PF: Evaluation of kaolinite and quartz differential thermal curves with a new high-temperature cell. Am Mineral 52:509-523, 1967.
7. Berkley C, Langer AM, Baden V: Instrumental analysis of inspired pulmonary particulates. Trans NY Acad Sci 30:331-350, 1967.
8. Neal JT, Langer AM, Kerr PF: Giant desiccation polygons of Great Basin playas. Bull Geol Soc Am 79:59-90, 1968.

Department of Geology
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20742

Mr. Bruce Mandel
Ulmer and Berne
Bond Court Building
1300 E. 9th Street suite 900
Cleveland, Ohio 44114-1583

March 17, 1995

Dear Mr. Mandel:

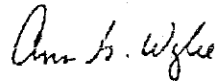
I have studied the relationship between mineralogy and health effects for more than 20 years. During this time, I have read the literature extensively and studied many minerals that have been implicated in disease.

Over the last fifteen years, I have analyzed numerous samples from the Gouverner Talc District in New Your State including raw ore, fiber concentrates and commercial products. These analyses have been conducted with both optical and electron microscopy.

The major minerals found in the commercial talc deposits from the Gouverner Talc District are talc, serpentina, tremolite, fibrous talc and small amounts of other silicates such as quartz and anthophyllite. I have not detected asbestos in the samples I have examined.

I am familiar with animal studies using fibrous minerals especially the work of Merle Stanton which was designed to investigate the relationship between the dimensions of durable mineral fibers and mesothelioma. I have examined many of the samples he used and I have identified the source of all the talc samples. Two of the talc samples were from The Gouverner district of New York State. In the Stanton experiments the Gouverner talc samples did not cause statistically significant excess cancer.

Sincerely yours,



Ann G. Wylie
Professor

CURRICULUM VITAE

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 Phone: (301) 405-6848

Educational Background:

Wellesley College, Wellesley, Mass., 1966 B.A.
 Major: Geology

Columbia University, New York, New York, 1972 Ph.D.
 Major: Economic Geology
 Minor: Mineralogy, Mining Engineering, Petrology

Academic Positions:

Teaching Assistant, Geology Department, Columbia University, 1966-67
 Preceptor, Geology Department, Columbia University, 1967-69, 1970-71
 Assistant Professor, Department of Agronomy, UMCP, 1972-1973
 Assistant Professor, Department of Geology, UMCP, 1973-1977
 Associate Professor, Department of Geology, UMCP, 1977-1992
 Professor, Department of Geology, UMCP, 1992-

Acting Associate Dean for Research, Graduate School, 1984-1986
 Special Assistant to the Dean for Graduate Studies and Research, 1986-1987
 Acting Chairman, Geology Department, 1989-1990
 Associate Chairman and Director of Graduate Studies, Geology Department, 1990-1994
 Undergraduate Director, Department of Geology, 1996-1997
 Acting Associate Dean, College of Computer, Mathematical and Physical Sciences, 1999-2000
 Assistant Provost, 2000 - present

PUBLICATIONS

Refereed Publications:

- Wylie, A.G. and P.J.M. Ypma, "Determination of the Optical Parameters, n and k, of Absorbing Minerals with the Microscope: Isotropic Minerals". Economic Geology V. 52 No. 8 (1974) p. 1300-1327.
- Wylie, A.G., "Fiber Length and Aspect Ratio of Some Selected Asbestos Samples", Annals of the New York Academy of Science 330 (1979) p. 640-643.
- Wylie, A.G., "Optical Properties of the Fibrous Amphiboles", Annals of the New York Academy of Science 330 (1979) p. 600-605.
- Zoltai, Tibor and A.G. Wylie, "Definitions of Asbestos-related Mineralogical Terminology", Annals of the New York Academy of Science 330 (1979) p. 640-643.
- Rohl, A.N., A.M. Langer and A.G. Wylie, "Mineral Characterization of Asbestos-Containing Spray Finishes", in Asbestos Materials in Schools: A Guidance Document, Part I, EPA C0090 (1979) p. 59-64.
- Wylie, A.G. and C. Huggins, "Characteristics of a Potassian Winchite - Asbestos from the Allamoore Talc District, Texas", Canadian Mineralogist V. 18 No. 1 (1980) p. 101-107.
- Siegrist, H.G. and A.G. Wylie, "Characterizing and Discriminating the Shape of Asbestos Particles", Environmental Research 23, (1980) p. 348-361.
- Campbell, W., C. Huggins and A.G. Wylie, "Chemical and Physical Characterization of Amosite, Chrysotile, Crocidolite and non-fibrous Tremolite for Oral Ingestion Studies by NIEHS", Bureau of Mines Report of Investigation #8452 (1980) p. 1-63.
- Wylie, A.G. and Peter Schweitzer, "The effects of Sample Preparation on Size and Shape of Mineral Particles: The Case of Wollastonite", Environmental Research 27, (1982) p. 52-73.
- Shedd, K.B., R.L. Virta and A.G. Wylie, "Are Zeolites Dimensionally Equivalent to Asbestos?", in Process Mineralogy II: Applications in Metallurgy, Ceramics and Geology, R.D. Hagne, Ed., Proceeding of Metallurgical Society of AIME, (1982), p. 395-399.
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Chapters or Articles in Books:

- Gilbert, J. Ann, "Units, Numbers, Symbols and Constants", Encyclopedia of Atmospheric Sciences and Astrogeology, Rhodes Fairbridge, ed. Reinholt Publishing Company p. 1049-1062 (1967).
- Wylie, A.G., Numerous Mineral Descriptions in Encyclopedia of Mineralogy, K. Frye, ed., Reinholt Publishing Company (1981).
- Steel, E. and A. Wylie, "Mineralogical Characteristics of Asbestos" in Geology of Asbestos Deposits, P.H. Riordon, ed., Society of Mining Engineers of AIME p. 93-100, (1981).
- INVITED: Veblen, D.R. and A.G. Wylie, "Mineralogy of Amphiboles and 1:1 Layer Silicates" in Health Effects of Mineral Dusts, G.D. Guthrie & B.T. Mossman, eds., Reviews in Mineralogy, v. 28, Min. Soc. Am., p. 61-131, (1993).
- INVITED: Wylie, A.G., "The Analysis of Industrial Mineral Products for Crystalline Silica by Optical and Electron Microscopy: A Literature Review". In Review Papers on Analytical Methods, Chemical Manufacturers Association, (1995).
- INVITED: Wylie, A.G. and P.A. Candela, "Metallic Mineral Deposits - Chromite" in Geol. of Pennsylvania, Pennsylvania Geol. Survey and Pittsburgh Geol. Survey, Special Publication 1, p.588-595 (1999),

Other Publications:

- Gilbert, Jean Ann, Determination of the Index of Refraction and Coefficient of Absorption Under the Microscope: A New Method and Some of Its Applications, Ph.D. Thesis, Columbia University, February (1972).
- Wylie, A.G., L. Johnson, R. Reichlin, E. Steel, and R. Virta, "Mineralogy and Size Distribution of Asbestos", University of Maryland Electron Microscope Central Facility. Newsletter #5 (1977).
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- INVITED: Wylie, A.G., "Mineralogical Definitions for Asbestos Fibers and Cleavage Fragments", Report of the Committee on Geology and Public Policy GPP012. Geological Society of America, p. 2-4, (1989).
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- Schwartz, C., A.G. Wylie, A. Davis, B. James, "Investigation of the Expansive Behavior of Chromium Tailings: Final Report on Phase II Investigations," April, 2000.

Book Reviews:

- INVITED: Book review of Optical Mineralogy: Theory & Technique by E.G. Ehlers. In American Scientist, Nov./Dec. (1988).
- INVITED: Book review of Ultramafic Rocks of the Appalachian Piedmont, GSA Spec. Paper 231, Steven K. Mittwede and E.F. Stoddard, eds, 103 pages, in Economic Geology, v. 85 (1990).

Published Abstract and Professional Papers Presented:

(Since 1980)

- INVITED: Wylie, A.G. and P. Schweitzer, "The Effects of Grinding on the Shape of Wollastonite Particles", Symposium on Electron Microscopy and X-ray Applications to Environmental and Occupational Health Analysis (1980) Penn State.
- Huggins, C., A.G. Wylie and W. Campbell, "Preparation and Selected Properties of Amosite, Chrysotile, Crocidolite and Non-fibrous Tremolite for Use in NIEHS Oral Ingestion Studies", Symposium on Electron Microscopy and X-ray Applications (1980) Penn State.
- Rosemeier, R.G., M.E. Taylor and A.G. Wylie, "Low Cost 210K Gain Transmission Electron Microscope Image (TEMI) Intensifier", Electron Microscopy Society of America, Annual Meeting (1981) Atlanta.
- Virta, R., K. Shedd, A.G. Wylie and J. Snyder, "Size and Shape Characteristics of Amphibole Asbestos and Amphibole Cleavage Fragments Collected on Occupational Air Monitoring Filters", Proceedings of the International Symposium on Aerosols in the Mining and Industrial Work Environment. University of Minnesota USBM-NIOSH (1981) Minneapolis, Minnesota.
- Broadhurst, C.L., Candela, P.A., Wylie, A.G. and Burke, T.M., "A Geochemical Study of the Host Rocks of the Copper-Iron-Cobalt Ores of Sykesville, Maryland: An Ultramafite-Associated Deposit, Geol. Soc. Am. Natl. Meeting, November, (1983).
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- INVITED: Wylie, A.G., "Distinguishing Tremolite-Asbestos from Tremolite Cleavage Fragments on a Light Optical and Morphological Basis", VII International Pneumoconiosis Conference Proceeding of Workshop: Hazard Recognition of Mineral Dust (1989). Pittsburgh, NIOSH-ILD-BOM-MSHA-OSHA.
- Wylie, A.G., Linder, D. and Candela, P. "Sedimentary Features of Appalachian Serpentinities". Geol. Soc. of Amer. National Meeting, Nov. (1990), p. A230.
- INVITED: Skinner, C. and Wylie, A., "Fibrous Tremolites". Bloss Symposium, VPI, Blacksburg, Virginia (1990).
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- Wylie, A.G., The Fractal Distribution of the Mass of Asbestos Fiber and its Application to the Analysis of Industrial Minerals. Geological Society of America Annual Meeting, Boston (1993).
- Verkouteren, J.R., Wylie, A.G., Steel, E.B., Lim, M.S. (1995) "Analysis of the tremolite-actinolite series using high precision refractive index measurements," Microbeam Analysis, p. 27.
- INVITED: Wylie, A.G. (1996) Factors affecting risk from biologically active minerals. Society of Mining, Metallurgy & Exploration Symposium. Mineral Dusts: Their Characterizations and Toxicology.
- INVITED: Wylie, A.G., "The habit of asbestiform amphiboles: Implications for the analysis of bulk samples X 1997 Boulder Conference: Advances in Environmental Measurement Method for Asbestos. July 13-17 (1997). University of Colorado, Boulder.

Published Guides for Field Trips:

- Wylie, A. and P. Candela "The Geology of the Maryland Piedmont". 3-day Trip and GuideBook. Dept. of Geology Annual Trip. October 1987.
- Candela, P. and A. Wylie. "The Ultramafite-associated Cu-Fe-Co-Ni-Zn Deposits of the Sykesville District, Maryland Piedmont". Goldschmidt Conference Field Trip. May, 1988; May, 1990.
- Candela, P. and Wylie, A. "Fe-Cu-Co-Ni-Zn deposits of Sykesville, Md." Int. Geol. Congress, July 1989.

HONORS

- Seven College Conference of Women's Colleges Scholarship to Wellesley College, 1962-1966.
- Wellesley College Scholar, 1966.
- Wellesley College B.A., *cum laude*
- Faculty Fellowship, Columbia University, 1969-70, 1971-72.
- Citation from Governor, State of Maryland, for recognition of assistance in implementation of Title IX in Maryland, 1983.
- Butler Prize, Geological Society of Washington, 1989. Given for the best paper read before the Society, 1989.
- Distinguished Scholar-Teacher 1995, UMCP.

Thesis (beginning 1980) Major Advisor:

- ¹Ed. Jacobsen "Coal Geology of Garrett County, Maryland" (1980)
- Sharron O'Donnell "Coal Geology of Southwestern Kentucky (1982)
- Eric Windsor "Shape Characterization of Amphiboles" (1982)

¹Winner of the AAPG National Undergraduate Research Award

- Morris Levin "Characterization of Part of the Sykesville Magnetite District by a Magnetometer" (1982)
- Lyle Griffith "The Use of a Magnetometer in Characterizing the Beasman Prospect, Sykesville, MD." (1982)
- ²John Varndell "Heavy Element and Particle Size Relationships in a Sludge Disposal Site, Baltimore, Maryland" (1982)
- Joe Segretti "Relationship between cytotoxicity and coating of chrysotile fibers" (1982)
- Mark Beal, A Geologic Evaluation of a Placer Gold Deposit in Southern Farquier Co., Virginia (1982)
- Keith Mason "A Preliminary Evaluation of Copper and Cobalt in Conjunction with Iron Mining in the Beasman Prospect of Sykesville, Md." (1983)
- Michael D. Jones "Chromium in the Soils and Streambeds above the Hunting Hill Serpentine Body, Montgomery County, Md." (1983)
- Theresa Baker "Crack Growth in Quartz: The Effects of Chemical Environments" (1983)
- Mark Hevey "Gas Production and Faulting in Gas Field, Kansas" (1983)
- Brian Hart "A Potential Field Study of the Magnetite Bearing Deposits of the Central Portion of the Sykesville Mining District" (1984)
- Katherine Heller "A Reconnaissance Study of the Origin of Small Talc and Serpentine Bodies in the Wissahickon Formation within the Maryland Piedmont" (1984)
- Dan Linder "Comparison of the James Run with the Sykesville and Morgan Run Formation" (1987)
- Bethany Baker "Observation on the Geology of Montgomery County from geomagnetic, aeroradioactivity and gravity surveys" (1987)
- Valerie Gray "Reconnaissance Study on the Source of Gamma Radiation Fluctuation in Eastern Montgomery County" (1987)
- Tom Davis "Comparative Geothermometry by Using Garnet-Biotite and Fe-Ti Oxides in the Loch Raven Schist (1988).
- Dan Galasso "Geochemical Prospecting of Heavy Minerals to Determine if a Marker Exists for the Sykesville District of Carroll County, MD" (1991).
- David Berry "Analysis of Trace Quantities of Amphibole Asbestos Based on the Fractal Model for Mass Distribution" (1994).
- Bob Schultz "Determination of Asbestos in a Matrix Through Employment of the Fractal Model for Mass Distribution" (1995).
- Allan Jackson-Gewirtz "A Comparison of Methods of Analysis of Powdered Samples" (1995).
- Roberta Winters "Biological Effect of Fiber Size and Mineralogy: The Case of Talc Fibers in Hamster Tracheal Epithelial (HTE) and Rat Macrophage Cells (RMC)" (1995).
- Mi Lim "Anomalous Optical Properties of Tremolite-Actinolite Fibers" (1995).
- Tom Biolsi "Effects of absorption and thickness in measuring the index of refraction of blue glass and riebeckite and its application to crocidolite" (1996).
- Katherine White "X-ray diffraction and optical analysis of picrolite from the State Line Quarry, Pennsylvania (1996).
- Matt McMillan "Lattice dimensions vs. chemical composition and optical properties of tremolite (1997).
- Russell Meyer – Lattice Dimensions, chemical composition and optical properties of crocidolite (1999).
- John Ossi, M.S., "A New Petrographic Method For Interpreting Coal-Forming Environments of Deposition" (1985).
- Robert Virta, M.S., "An Evaluation of the Adequacy of Morphological Data for Determining the Carcinogenicity of Minerals (1988).
- Dan Linder, M.S., "The Mineralogy and Origin of the State Line Talc Deposit, Lancaster Co., Pennsylvania" (1990).
- Tim Rose, M.S., "Petrology and Chemical Variation of Peraluminous Granitic Rocks from the Northern Lobe of the Phillips Pluton, Maine" (1991).
- Jiang Feng, M.S., "Evidence for compositional variation in phyllite from Carroll and Frederick Counties, MD" (1996).

²2nd Place Winner of the AAPG National Undergraduate Research Award

Diane Hanley, M.S., "Overland flow evaluation of lava flow platform" (1998).

William Greenwood M.S. AMineralogical Characteristics of Fibrous Talc≡(1998)

Mark Watson M.S., Effects of intergrowths on the Physical Characteristics of fibrous Anthophyllite (1999)

James Crowley, Ph.D., "Geochemical Study of Playa Efflorescent Salt Crusts and Associated Brines by Using Spectral Reflectance, X-ray Diffraction and Brine Chemical Data" (1991).

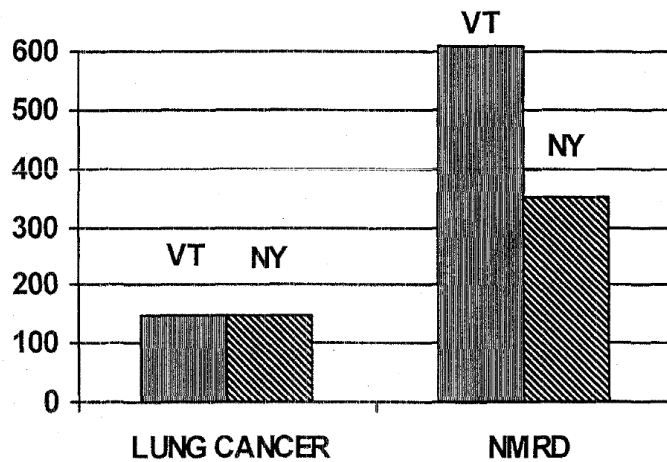
Martitia Tuttle, Ph.D., "Late Holocene Earthquakes and their Implications for Earthquake Potential of the New Madrid Seismic Zone, Central United States" (1999).

HEALTH REF.

EXHIBIT 9
Deponent Kelse
Date 8/10 Rptr. KK
WWW.DEPOBOOK.COM

Vanderbilt Talc with amphibole & talc fiber Versus – Vermont Talc without (Lamm Study)

For Workers With >1 Year Exposure – SMR's



Pulmonary Review Findings of Vanderbilt Talc Workers: B. Boehcleck, MD, MSPH

"The medical surveillance results at this time continue to support the conclusion submitted to the OSHA docket in 1990, i.e., the data do not indicate that the workers exposed to the talc at this facility are at risk for developing asbestos related pneumoconiosis."

Conclusion drawn in 2001

Most recent surveillance (2008) continues to support this conclusion.

NCI Animal Study: Merle Stanton

Correlation of Fiber Dimension to Carcinogenicity

<u>Material</u>	<u>Critical Dimension (log fibers/ug) <0.25 μm W & >8 μm L</u>	<u>Animals % tumors</u>
Amosite	3.5	93%
Tremolite Asbestos	3.1	100%
Platy Talc	0	3%
Vanderbilt Talc	3.3	0%

Pleurae implant in rats 1 yr or more. 72 samples used.

William Smith Study: Tremolite in Hamsters

<u>Material</u>	<u>Tumors/Survivors After</u>		
	<u>350</u>	<u>500</u>	<u>600 Days</u>
Tremolite Asbestos:	3/20	5/6	5/1
Vanderbilt Talc	0/35	0/27	0/20
Tremolite (nonasbestiform from Vanderbilt talc)	0/31	0/15	0/3

Intraleural injection in hamsters – 25 mg Dose (max)

ADDISON/DAVIS


Peritoneal Injection Study (rats – 10mg)

18 MONTHS AFTER INJECTION

<u>Sample:</u>	<u># Deaths</u>	<u># Survivors</u>
Tremolite Asbestos (California)	33	3
Tremolite Asbestos (Korea)	29	4
Tremolite Asbestos (Swansea)	31	1
Nonasbest. Tremolite (Italy)	0	36
Nonasbest. Tremolite (Scotland)	1	32
Nonasbest. Tremolite (Scotland)	0	36

Completed study covered 24 months and reflected signif. deaths late in the study also for the Italian sample. These late deaths were reported by the authors as likely due to a small asbestos fiber sub-population later identified in this sample.

Wylie, A., Mossman, B. et al
Mineralogical Features Associated with Cytotoxic & Proliferative
Effects of Fibrous Talc and Asbestos on Rodent Tracheal
Epithelial and Pleural Mesothelial Cells - 1997



"fibrous talc does not cause proliferation of HTE cells or cytotoxicity equivalent to asbestos in either cell type despite the fact that talc samples contain durable mineral fibers with dimensions similar to asbestos. These results are consistent with the findings of Stanton, et al (1981) who found no significant increases in pleural sarcomas in rats after implantation of minerals containing fibrous talc."

**Health Studies: SPECIFIC
To Vanderbilt Talc**

- 7 Human mortality studies
- 2 Animal Studies
- 1 Cell study
- Routine worker pulmonary status evaluations

**Most Up-to-date
Largest Mortality Studies:
Honda study (retrospective – 42 yr span)
Gamble study (case control)**

● Combined Conclusion:

Elevated lung cancer rate among Vanderbilt talc workers does not appear causally linked to dust exposure.

Cases were 31% less exposed to dust than non-case decedents (inverse dose/response) and elevated smoking prevalence more likely responsible for the excess observed.

No mesothelioma reasonably linked to exposure.

LUNG CANCER CASES
 Honda, Y. et al: 1995: Cohort 818 SMR: 254

Covers all talc workers 1948 to the end of 1989 who worked for any period of time

Tenure Time at GTC	Work Area	Year DOD	Smoker*	Cigarette/Per Day
1 day	MINER	80	yes	20
4 days	Mill	87	?	-
7 days	no exposure	86	?	-
7 days	no exposure	70	yes	20
18 days	Mill	70	yes	40
18 days	MINER	88	?	-
1¼ months	MINER	70	yes	40
1¼ months	Mill	88	?	-
2 months	MINER	71	yes	20
2 months	MINER	84	yes	40
2½ months	MINER	75	yes	20
2½ months	Mill	84	yes	40
4½ months	MINER	81	yes	20
6 months	Mill	89	?	-
7 months	no or min. exposure	85	?	-
10 months	MINER	73	yes	20
10½ months	MINER	85	?	-
2.1 years	MINER	82	yes	20
2.5 years	MINER	74	yes	20
2.6 years	MINER	61	yes	20
2.9 years	MINER	64	yes	10
3.6 years	MINER	89	?	-
9.9 years	min. exposure	86	?	-
12 years	MINER	75	yes	30
17 years	Mill	76	yes	20
17 years	MINER	73	yes	20
17 years	MINER	84	yes	50
17 years	MINER	85	yes	20
23 years	Mill	82	yes	20
23 years	MINER	79	yes	40
23 years	no exposure	88	?	-

DUST EXPOSURES

	Cases	(Resp. Avg.) Mg/m3	(1954 - 75) Mppcf Avg.	Fibers/cc
Mill	7	0.5	14	1.5 - 8.0
Mine	19	0.7	11	1.7 - 9.8

TENURE

< 6 Months:	14 (45%)
< 1 Year:	17 (55%)
< 5 Years:	22 (71%)

SMOKING

Up to 1985 (Case-Control Study):

- ALL the cases smoked
- 73% of the controls smoked

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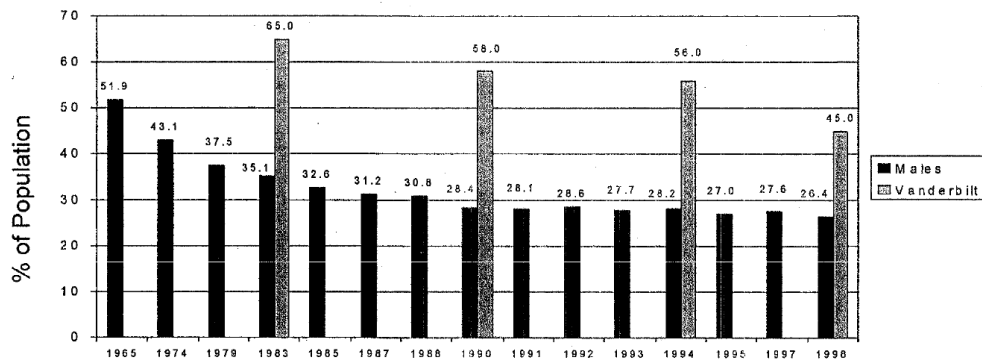
SMOKING

Up to 1985 (Case-Control Study):

- ALL the cases smoked
- 73% of the controls smoked

Smoking prevalence recorded

Cigarette Smoking (Current)
U.S. Males vs. Vanderbilt Talc Workers



U.S. Rates: Source MMWR, Vol. 49, No. 39

Vanderbilt Rates: Source Pulmonary Function Questionnaires

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF ALAMEDA

---o0o---

ERIC WESTON,

Plaintiff,

vs.

No. RG08426405

ASBESTOS CORPORATION LIMITED,
et al.,

Defendants.

_____/

VIDEOTAPED DEPOSITION OF JOHN KELSE
(PMK/COR FOR R.T. VANDERBILT COMPANY, INC.)

Taken Before KATHERINE J. KIRBY, CM, CRR

CSR NO. 6418

August 10, 2009

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Page 3

1 DEPOSITION OF JOHN KELSE

2

3 BE IT REMEMBERED, that pursuant to Notice, and on

4 the 10th day of August 2009, commencing at the hour of

5 10:12 a.m., in the offices of KAZAN, MCCLAIN, LYONS,

6 GREENWOOD & HARLEY, 171 Twelfth Street, Third Floor,

7 Oakland, California, before me, KATHERINE J. KIRBY, a

8 Certified Shorthand Reporter, personally appeared JOHN

9 KELSE, produced as a witness in said action, and being

10 by me first duly sworn, was thereupon examined as a

11 witness in said cause.

12

13 ---o0o---

14

15 APPEARANCES:

16 For the Plaintiffs:

17 DENISE ABRAMS, Attorney at Law

18 WILLIAM RUIZ, Attorney at Law

19 JUSTIN A. BOSI, Attorney at Law

20 Kazan, McClain, Lyons, Greenwood & Harley

21 171 Twelfth Street, Third Floor

22 Oakland, California 94607

23

24 For the Defendant, R.T. Vanderbilt Company, Inc.:

25 R. THOMAS RADCLIFFE, Attorney at Law

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9 For the Defendants, The Henry Company:

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San Francisco, California 94111

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12

13 For the Defendant, Modern Plastics, Inc.:

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Herr & Zapala, LLP

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16

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18 For the Defendant, Calaveras Asbestos Ltd.; and

19 Regents of the University of California; Special

20 Electric Company:

21 LAUREN C. MCLEOD, Attorney at Law

Foley & Mansfield, PLLP

1111 Broadway, 10th Floor

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(Via telephone)

22

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24

25

Page 5

1 For the Defendants, Cyprus AMAX Minerals, Co.; Sierra

2 Talc & Chemical Co.:

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101 California Street, Suite 2050

San Francisco, California 94111

(Via telephone)

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6 For the Defendants, Kaiser Gypsum, Inc.:

7 MARK DAVIS, Attorney at Law

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2 Embarcadero Center, Suite 1800

San Francisco, California 94111

(Via telephone)

8

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10 For the Defendants, DAP, Inc.:

11 BRENDAN WAY, Attorney at Law

Jackson & Wallace

55 Francisco Street, Sixth Floor

San Francisco, California 94133

12

13

14 For the Defendants, R.T. Vanderbilt Company, Inc.:

15 JEFFREY C. BROHEL, Litigation Counsel

30 Winfield Street

Norwalk, Connecticut 06856

16

17

18 VIDEOGRAPHER: Stanley Booker, Tele-Video Production

19 Services.

20

21

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23

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Page 6

1 --oOo--
2 THE VIDEOGRAPHER: We are now on the
3 record. My name is Stan Booker. I'm a qualified
4 video technician. I'm videotaping on behalf of
5 Tele-Video Production Services. The court
6 reporter today is Kathy Kirby. Today's date is
7 August the 10th, 2009. The present time is
8 10:12 a.m.
9 The location of this deposition is the
10 Kazan Law Firm located at 171 Twelfth Street,
11 Oakland California.
12 Today's witness is John Kelse testifying
13 for R.T. Vanderbilt in the case of Eric Weston
14 versus Asbestos Corporation Limited, Case No.
15 RG08426405, filed in the Superior Court of the
16 State of California in and for the County of
17 Alameda.
18 This deposition was noticed by Denise
19 Abrams and Justin Bosl for the plaintiff.
20 Counsel for the parties, please identify
21 themselves and for whom they are appearing,
22 please.
23 MS. ABRAMS: Denise Abrams and Will Ruiz
24 for the plaintiffs.
25 MR. RADCLIFFE: Tom Radcliffe for

Page 7

1 R.T. Vanderbilt.
2 MR. CHUSID: Bruce Chusid for R.T.
3 Vanderbilt.
4 MR. WAY: Brendan Way for DAP.
5 MS. LEE: Jennifer Lee on behalf of
6 CertainTeed.
7 MR. ZAPALA: Alan Zapala for Modern
8 Plastics, Inc.
9 MR. PAN: Eric Pan on behalf of W.W. Henry
10 and the Henry Company.
11 MR. BOSL: I'm Justin Bosl from the Kazan
12 firm also.
13 MS. ABRAMS: Oh, sorry. I didn't know you
14 were there.
15 THE VIDEOGRAPHER: Anyone on the
16 telephone?
17 MS. MCLEOD: This is Lauren McLeod
18 appearing on behalf of Calaveras Asbestos Limited
19 and U.C. Regents of California.
20 MR. DAVIS: Good morning. Mark Davis for
21 Kaiser Gypsum Company, Inc.
22 MR. JACKSON: This is Warren Jackson for
23 Cyprus AMAX Metals Company.
24 THE VIDEOGRAPHER: Anyone else?
25 Any stipulations or statements you would

Page 8

1 like on the record at this time, Counsel?
2 None.
3 The court reporter will swear in the
4 witness, please.
5 JOHN KELSE,
6 sworn as a witness,
7 testified as follows:
8 EXAMINATION BY MS. ABRAMS:
9 Q. Good morning, Mr. Kelse. How are you?
10 A. Good morning.
11 Q. We are here in my office. My name is
12 Denise Abrams. I'll be taking your deposition
13 today.
14 You've been produced by the R.T.
15 Vanderbilt Company as the person most qualified
16 and custodian of records; is that correct?
17 A. I'm not sure what those terms mean. I've
18 been asked by my attorneys to show up and answer
19 your questions as best I can.
20 Q. Will you state your name for the record,
21 please.
22 A. John Kelse.
23 Q. And spell your last name?
24 A. K-e-l-s-e.
25 Q. Your current address, please?

Page 9

1 A. 152 Pulaski, P-u-l-a-s-k-i, Highway in
2 Ansonia, A-n-s-o-n-i-a, Connecticut.
3 Q. Is that your corporate address?
4 A. No, it's not.
5 Q. What is your corporate address?
6 A. It's 30 Winfield Street, W-i-n-f-i-e-l-d,
7 in Norwalk, Connecticut 06855.
8 Q. If you would kindly indulge us and
9 possibly look at the camera while you're being
10 asked questions, I think we would all appreciate
11 this since this may be shown to the jury; okay?
12 A. Certainly.
13 Q. From time to time I might remind you of
14 that; all right?
15 A. Okay.
16 Q. It's kind of difficult to be talking and
17 not looking.
18 A. I know.
19 Q. So I appreciate your cooperation.
20 A. Okay.
21 Q. You've had your deposition --
22 UNIDENTIFIED SPEAKER: Sorry to interrupt,
23 but it's really difficult to hear. Is there any
24 way the sound can be closer or mic magnified?
25 MS. ABRAMS: You can come to the office.

Page 10

1 How's that? Is that better?
2 UNIDENTIFIED SPEAKER: Yeah. Yeah,
3 thanks.
4 BY MS. ABRAMS:
5 Q. Now, on how many depositions -- how many
6 prior depositions have you given?
7 A. I don't know the exact number. Somewhere
8 in the area of about half a dozen.
9 Q. Have you ever given any trial testimony?
10 A. Once.
11 Q. When was that?
12 A. Two, three years ago in New Jersey. That
13 was known as the Hirsh case.
14 Q. Were you an expert witness in that case?
15 A. No. I represented the company.
16 Q. You had your deposition taken before, but
17 let me just go over briefly the rules to refresh
18 your memory; okay?
19 We are here in an informal setting.
20 However, you are under oath, as you know, and
21 you've sworn to tell the truth here today, you
22 understand that?
23 A. Certainly, yes.
24 Q. Just as if you were in a court of law even
25 though we're sitting around a conference table.

Page 11

1 A. Right.
2 Q. If you -- you will -- the court reporter
3 is going to take down everything we say, and at
4 the end of the deposition, she's going to type it
5 up in a booklet, and you'll have an opportunity to
6 review that. However, if you decide to change
7 anything substantive, we'll be able to comment on
8 that, you understand?
9 A. Certainly.
10 Q. So, because of that, when I'm asking you
11 questions, if you don't understand something I'm
12 asking you now, please let me know that and I'll
13 rephrase it. It's quite possible you won't
14 understand my question; in fact, it's quite
15 possible I may not understand your answer given
16 the topics that we're going to be talking about.
17 A. Okay.
18 Q. But if you do answer my question, I'll
19 assume that you did understand it and we'll go
20 from there; okay?
21 A. I'll do my best.
22 Q. If I ask you a question, you need to
23 answer out loud, not "uh-huh" or "huh-uh" because
24 the court reporter won't know how to write that
25 down; all right?

Page 12

1 A. Yes.
2 Q. We're here today, we'll be talking about
3 some things that happened quite a while ago. You
4 have your own personal knowledge about
5 R.T. Vanderbilt, you've been there for quite a
6 while. Some things you will know and some things
7 you may generally know and some things would be
8 just wild guesses. We don't want you to guess at
9 anything, but we are entitled to your best
10 estimate; okay?
11 A. Okay. I'll try to characterize it in one
12 of those three categories.
13 Q. The only thing that you're not supposed to
14 do here is guess; okay?
15 A. Okay.
16 Q. So, for example, let me give you an
17 example of that. If I were to ask you how long
18 this table was, you might be able to give me an
19 estimate of that even though we don't have a
20 ruler, but if I asked you how long is my dining
21 room table at my house that would probably be a
22 guess; okay?
23 A. Yes.
24 Q. Now, what is your understanding of why
25 you're here today?

Page 13

1 A. Well, to testify as to my knowledge that's
2 pertinent to this case. That's pretty much the
3 extent of my understanding.
4 Q. Did you review anything before you came
5 here today?
6 A. I pulled together a few documents that,
7 it's my understanding, that may assist me in
8 responding to questions as it pertains to the
9 composition of our industrial talc and to my
10 understanding of the health risks associated with
11 it.
12 Q. So it's your understanding that you'll be
13 asked to talk today about the composition of the
14 Vanderbilt industrial talc and any health risks;
15 is that correct?
16 A. As I understand it, yes.
17 Q. Did you provide these documents to your
18 attorneys or have they seen them and had an
19 opportunity to produce them to us?
20 A. I don't know what was produced to you. My
21 attorneys did have a chance to look through the
22 folders.
23 Q. Are you planning to give those to me
24 today?
25 A. Sure.

Page 14

1 Q. How about if I take a look right now;
2 okay?
3 A. Okay.
4 Q. Are these things we haven't seen before,
5 Bruce?
6 MR. CHUSID: It's my understanding that
7 all of those documents were produced in response
8 to the request for production of documents.
9 MR. RADCLIFFE: There may be a few that
10 were not.
11 MS. ABRAMS: Well, since there is one,
12 two, three, four, about six inches of documents,
13 is there a way that we can short-circuit this and
14 you can let me know what was produced and what
15 wasn't?
16 MR. RADCLIFFE: I am not able to do that.
17 You're certainly entitled to have copies. You're
18 welcome to have copies of all the stuff he has
19 there.
20 BY MS. ABRAMS:
21 Q. So there are three files that you
22 produced. One says "Health Ref." One says
23 "Mineral R-E-F"?
24 A. Yes, reference.
25 Q. And one says "Mouldene file." Are these

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1 files that you had in your office that you pulled?
2 A. Yes.
3 Q. Did you create them for this deposition?
4 A. To the extent I pulled documents together
5 that I thought would be helpful to me based on my
6 understanding of why I'm here, yes.
7 Q. So do you have a file in your office
8 entitled "Mineral Ref"?
9 A. I have files that deal with mineral
10 analysis of our talc and articles about the
11 mineral composition of the talc. They're pretty
12 extensive.
13 I don't know if part of that stack
14 represents some of those documents or not, but
15 they're very extensive. I tried to condense it
16 and pull some documents that are summary in
17 nature.
18 Q. Okay. Let's go through Mineral Ref, the
19 file Mineral Ref. You tried to pull particular
20 documents. What was your criteria for pulling
21 documents or selecting these documents as opposed
22 to everything else in that file?
23 MR. RADCLIFFE: Object to the form.
24 Misstates prior testimony. Vague, ambiguous.
25 BY MS. ABRAMS:

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1 Q. You can answer.
2 A. Well, in prior cases, I've been asked why
3 I'm so convinced that there is no asbestos in
4 mineral talc. These are some documents that
5 reflect why I have that -- why I -- well, I know
6 there's no asbestos in mineral talc, why I feel so
7 strongly about it.
8 So if I were asked that question, these
9 are the types of documents that I would produce as
10 a basis for my position.
11 Q. How thick is your mineral ref file?
12 MR. RADCLIFFE: Objection. Misstates
13 previous testimony.
14 BY MS. ABRAMS:
15 Q. Do you have a file that's called "mineral
16 ref" or something to that nature?
17 A. Yes. And I know that in prior cases, all
18 of our analytical reports in chronological order,
19 which is probably a stack about this high
20 (indicating) have been taped. You know, what was
21 produced to you, I don't know.
22 Q. And by "this high," that's about six
23 inches high, something like that?
24 A. It's probably --
25 MR. RADCLIFFE: Don't guess.

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1 THE WITNESS: It's more than six inches.
2 BY MS. ABRAMS:
3 Q. Do you have an estimate of how high that
4 is?
5 A. Again, I don't have a ruler, so if
6 you're -- I don't want to speculate. But it's
7 more than six inches and less than 16, somewhere
8 in there.
9 Q. Is it a banker's boxful?
10 MR. RADCLIFFE: Objection. Vague.
11 THE WITNESS: I'd say a file cabinet,
12 about that thick (indicating).
13 Q. A file drawer?
14 A. Yeah.
15 Q. Do you see the stack of documents sitting
16 on the table right in front of us?
17 A. Yes.
18 Q. Is it thicker than that?
19 A. It's about the size of one pile, maybe a
20 little bit less than that.
21 Q. And that's just your mineral reference
22 file?
23 A. That's -- that's the analytical reports
24 that I have a record of that -- that to the best
25 of my knowledge has ever been produced or we have

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1 access to.
2 Q. What is all of that -- what are all of
3 those analytical reports? What are they -- are
4 they labeled in a file?
5 A. Well, they're -- as I mentioned they're in
6 chronological order and they all relate to
7 analysis that speak to the question of whether
8 there's asbestos in Vanderbilt upstate New York
9 talc or not.
10 Q. So you have a file of analytical reports
11 in chronological order.
12 Is the file titled "analytical reports,"
13 by any chance? Or do you know what it's titled?
14 A. I'm trying to remember what I scribbled on
15 the tab. I think it says "analytical report."
16 I'm pretty sure. That's a guess, but that's what
17 it refers to.
18 Q. And out of that file, you selected several
19 documents that you brought and put into the
20 mineral ref folder?
21 A. Yes, several, although there are a couple
22 of cover letters that were written by mineral
23 scientists that summarize their experience in
24 looking at our talc over a period of decades.
25 Q. Among the analytical report file, are

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1 there documents in there that show -- that
2 indicate there may be asbestos in Vanderbilt talc
3 or are interpreted that way?
4 A. The documents that I've kept are all
5 analytical reports that we have received. And
6 there are some documents in that pile that
7 incorrectly identify asbestos in the talc.
8 Q. Did you bring those?
9 A. I believe or you would have to check -- I
10 did not bring those. I brought the documents that
11 we rely on to tell us there isn't asbestos in the
12 talc but why people have confused it, why it is --
13 why they've made an error in the analysis.
14 Q. How would I go about checking whether I
15 have those?
16 A. I guess if it were me, I would look at the
17 documents that I received and I would have to read
18 them and see what they concluded.
19 Q. How would I know whether there's something
20 in your file that isn't in my file that I didn't
21 receive?
22 A. I can't speak for what the attorneys sent.
23 I know that all of those analytical reports were
24 copied from my file in chronological order. I
25 don't know in what form they sent it to you or if

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1 they sent it all to you. All I know is what I'm
2 here to testify to.
3 Q. When were those reports copied?
4 A. I know four or five years ago for certain.
5 And I'm not sure if there have been subsequent
6 editions or additional copies.
7 Q. Have you added to those reports in the
8 last four or five years?
9 A. The last couple years.
10 Q. Have those been copied, to your knowledge?
11 A. I don't know.
12 Q. Who copied them four or five years ago?
13 A. That was our national counsel, Hawkins &
14 Parnell.
15 Q. So is it fair to say that you did not go
16 into your file of analytical reports for this
17 case, Mr. Weston's case, and copy any material
18 that was added to that file in the last four or
19 five years and bring it here?
20 MR. RADCLIFFE: Objection.
21 MS. ABRAMS: Other than what you may have
22 there in your -- before us?
23 THE WITNESS: No. Just what I have here.
24 I do have a file for product and material
25 designated as Mouldene because I understood from

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1 the attorneys that that was material that was
2 being discussed in this case. So I did check that
3 file for whatever I had that pertained to
4 Mouldene.
5 BY MS. ABRAMS:
6 Q. So you have something from 2002. But that
7 already would have been copied; correct? That was
8 more than four or five years ago?
9 A. Well, everything in that folder is not
10 analytical reports. Some of the documents are.
11 Others are summaries. I have looked at this talc
12 for X number of years. I've never seen asbestos
13 in it, that sort of thing. Along with the CVs of
14 the individuals that make those observations.
15 This would be an example: This is an MSHA
16 Mine Safety Health Administration report the
17 company would receive subsequent to a visit to the
18 mining facility, which in this case they did air
19 sampling and -- specifically for asbestos. And so
20 a report like this would be in that stack.
21 In this case, this was dated 2001, so you
22 should find it, if you did get a copy of that disk
23 containing all the analytical reports. If you go
24 back to 2001, you should find this document
25 because it is an analytical report.

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1 Q. Okay. So is there anything in that folder
2 that you brought that you're looking at in front
3 of you that would have been added to your file
4 analytical reports after it was copied by the
5 Hawkins & Parnell firm, if you could look in there
6 and tell us that? And we're just talking about
7 the analytical report file.
8 A. No.
9 MS. ABRAMS: Okay. So I would request
10 that R.T. Vanderbilt send to us, in chronological
11 order, an entire copy of this analytical report
12 file.
13 MR. RADCLIFFE: I understand that's been
14 done.
15 MS. ABRAMS: And how would we know that?
16 What custodian could we talk to, to confirm that?
17 MR. RADCLIFFE: Well, Mr. Kelse is the
18 custodian, so you can talk to him. You can pull
19 out the analytical files that you have been
20 provided and you can show them to him and you can
21 ask him if there are any others. If there are any
22 others, we'll provide them.
23 BY MS. ABRAMS:
24 Q. Mr. Kelse, did you produce any documents
25 in response to this notice? I'll give you

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1 Exhibit 1 and have you look at that.
2 (Plaintiff's Exhibit No. 1 marked for
3 identification.)
4 BY MS. ABRAMS:
5 Q. Did you look in your files, go through
6 your files, go through any documents and produce
7 them in response to that notice?
8 MR. RADCLIFFE: I'll state for the record
9 that R.T. Vanderbilt has produced documents to
10 your firm that are responsive to the documents,
11 the document request in the notice.
12 MS. ABRAMS: And I sent out a notice to
13 talk to somebody to look for the documents and
14 brought them here and can testify that what was
15 produced is everything that R.T. Vanderbilt has in
16 response to that notice.
17 And so if he's not the person, then you
18 need to bring the person that is the custodian of
19 records who can do that. All I'm asking is who is
20 that person.
21 MR. RADCLIFFE: He is the person for the
22 categories for which he has been designated. He
23 is the person.
24 MS. ABRAMS: Could you read the question
25 back, please.

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1 (Record read.)
2 MR. RADCLIFFE: You're talking about other
3 than the documents you've already identified in
4 the three folders?
5 MS. ABRAMS: I'm just asking him the
6 question I asked.
7 MR. RADCLIFFE: I'll object because it
8 misstates prior testimony where he's already
9 identified three folders that he did produce.
10 Go ahead and answer.
11 MS. ABRAMS: Can you read the question
12 back, please? His question isn't the one I asked.
13 I'd like him to answer the one I asked.
14 (Record read.)
15 MR. RADCLIFFE: Same objection.
16 MS. ABRAMS: Let me even back up.
17 BY MS. ABRAMS:
18 Q. Have you ever seen that notice before, the
19 notice for production and custodian of records in
20 Mr. Weston's case?
21 A. I don't recall seeing it. I know I was
22 asked what records I had on Mouldene which is one
23 of the reasons I pulled that one folder.
24 And, actually, that is complete. That was
25 a request that was made, and the request was all

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1 the documents I had. So that's what I brought
2 with me.
3 In regard to the rest of these discovery
4 questions, no. A number of these don't apply to
5 me anyway.
6 Q. Do you know anyone at R.T. Vanderbilt who
7 received that notice and reviewed R.T. Vanderbilt
8 files in response to that notice to produce
9 documents?
10 A. No. I'm not aware of anyone.
11 Q. Is it fair to say that that pile of
12 documents was generated from an attorney's office
13 and not from R.T. Vanderbilt?
14 MR. RADCLIFFE: Object to the form.
15 Misstates prior testimony. Vague, ambiguous.
16 BY MS. ABRAMS:
17 Q. If you know.
18 A. It's my understanding that all the
19 technical information which certainly would
20 include analytical reports would come from my
21 file. So to the extent that they were provided to
22 you by a legal firm, originally they came from my
23 files.
24 Q. Well, you've already established that four
25 or five years ago somebody from Hawkins & Parnell

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1 copied your analytical file; correct?
2 A. That's right.
3 Q. And we've already established that
4 nobody's come to copy anything in your analytical
5 file for the last four or five years; correct?
6 MR. RADCLIFFE: Objection. Misstates
7 prior testimony.
8 THE WITNESS: Yes -- I don't think I said
9 that. I said I wasn't sure.
10 BY MS. ABRAMS:
11 Q. Can you think of an instance where anyone
12 has come and updated that production and copied
13 any analytical material over the last four or five
14 years from your file?
15 A. I can't think of an instance, but it
16 doesn't -- I don't know. I don't know whether
17 they did or not.
18 Q. You don't know that?
19 A. That's right.
20 Q. With respect to what you brought here
21 today, why did you bring reports that showed
22 R.T. Vanderbilt's position on whether or not there
23 is asbestos in the talc?
24 A. Well, these are documents that I feel in a
25 very summary way, provide a good overview as to

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1 why we -- I don't even know if I'd characterize it
2 as a position anymore. I think it's -- it's now a
3 fact that there simply isn't asbestos in this
4 talc.
5 Q. And you think that's a universal
6 agreement?
7 A. Among those individuals, analytical
8 personnel, mineral scientists, regulatory agencies
9 that deal with our talc, I believe that it is the
10 consensus, yes.
11 Q. Did you bring with you anything from your
12 analytical file that would show that there is any
13 disagreement with that position by anyone?
14 A. I didn't bring any in this file. But if
15 you did get a disk that reflected that
16 chronological listing of analytical reports, you
17 would have received every report, regardless of
18 whether it incorrectly identified asbestos in the
19 talc or not.
20 Q. It's fair to say that within your file of
21 6 to 16 inches of analytical reports, there are
22 reports that would disagree with R.T. Vanderbilt's
23 interpretation that there's no asbestos in the
24 talc; correct?
25 MR. RADCLIFFE: Object to the form. Vague

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1 and ambiguous.
2 THE WITNESS: There are reports that claim
3 to find asbestos in the talc.
4 MS. ABRAMS: Could you read the question
5 back.
6 (Record read.)
7 MS. ABRAMS: Could you answer the
8 question, please.
9 MR. RADCLIFFE: Same objection. It's been
10 asked and answered.
11 BY MS. ABRAMS:
12 Q. Is that correct?
13 A. I'm a little confused about how to answer
14 the question.
15 BY MS. ABRAMS:
16 Q. Did you understand the question?
17 A. Yes, I understood it. But the inference
18 is that that is an interpretation, and I think
19 that's what I'm having trouble with. We know
20 there's no asbestos in the talc. The fact that
21 there are reports that say that there is or
22 someone has found it, to us is simply an example
23 of an error which I'm -- what papers I'm prepared
24 to discuss with you to show you what that error is
25 and why that mistake has been made, especially in

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1 the past 20, 30 years ago more commonly.
2 I'm mostly concerned about what we know
3 today, not what people made mistakes with or went
4 through a learning curve 20, 30 years ago.
5 But my documents would reflect that
6 learning curve and that process of understanding a
7 complex mineral composition of this talc.
8 Q. Move to strike as nonresponsive.
9 Mr. Kelse, it's correct, is it not, that
10 within your file of analytical reports there are
11 reports that show in that reporter's perspective
12 that there is asbestos in Vanderbilt talc. Is
13 that a correct statement?
14 MR. RADCLIFFE: Objection. Vague and
15 ambiguous.
16 THE WITNESS: I would say no. I would say
17 it reports it. I would not say "shows." I would
18 say it reports it. I would say if it was actually
19 there, I would use the word "shows."
20 BY MS. ABRAMS:
21 Q. Okay. We're going to copy this folder and
22 then we'll talk about it later; okay?
23 A. Sure.
24 Q. Let's talk about your folder "Health Ref."
25 Do you have files in your office that correspond

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1 to any health information?
2 A. Yes, I do. This very top sheet -- these
3 are PowerPoints that I put together partially for
4 use today or for possible future presentation.
5 This first one summarizes the number of health
6 studies that are specific to Vanderbilt talc.
7 These are seven human mortality studies --
8 Q. Excuse me, but we're going to talk about
9 those later after we copy them. I just want to
10 know what's in there.
11 So you have a PowerPoint in there and what
12 else?
13 A. Yes. Which summarizes the health studies
14 that have been undertaken.
15 MR. RADCLIFFE: Let me just object to the
16 question. He didn't say he has a PowerPoint. He
17 said he had PowerPoint slides.
18 Go ahead.
19 MS. ABRAMS: Apologize.
20 BY MS. ABRAMS:
21 Q. Why don't we go on and we'll talk about
22 the slides later.
23 What other documents did you bring?
24 A. Again, this is just the slide. These are,
25 as I mentioned earlier, sort of summary documents,

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1 you know, rather than having a stack of individual
2 health studies. These are -- this one, for
3 example, is --
4 MR. RADCLIFFE: Mr. Kelse, I object.
5 You're not being responsive. She asked you what
6 you had, not what they say. Just a description of
7 what's in there.
8 MS. ABRAMS: You can make an objection,
9 but let's not have a discussion. You can just
10 continue.
11 THE WITNESS: I apologize. It's in my
12 zeal to describe what I have here. I'm going to
13 try to explain it --
14 BY MS. ABRAMS:
15 Q. So you have a summary document there. Is
16 that --
17 A. I have a summary document.
18 Q. Can I see that one?
19 A. Sure. It's a summary of one study.
20 Q. This is the second page in there and it's
21 a slide, okay, and it has "combined conclusion" on
22 it; is that correct?
23 A. That's correct.
24 Q. Is there underlying data for that slide in
25 your files?

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1 A. Yes, there is a report, a health study
2 report, published, peer reviewed.
3 Q. Whose report is it?
4 A. It's known as the Honda study.
5 Q. Do you have the underlying data for the
6 Honda study in your files?
7 A. I did look at the disk that was sent to
8 you briefly to get a sense of what was sent and I
9 notice this document, this health study was in it.
10 Q. My question was, do you have the
11 underlying data that went into the health study,
12 not do you have the health study? Do you have
13 Honda's data?
14 A. Some.
15 Q. Where is that kept?
16 A. I have it in my office, some.
17 Q. And was that on the disk?
18 A. No. Just the published peer reviewed
19 paper.
20 Q. Why is it that you have Mr. Honda's data?
21 MR. RADCLIFFE: Object. Misstates prior
22 testimony. Vague and ambiguous. Misleading.
23 THE WITNESS: Well, this was an
24 epidemiologic mortality study of our talc workers.
25 And this was a study that R.T. Vanderbilt

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1 commissioned. So therefore, the research group
2 that did this study, as would be the case with any
3 research group studying Vanderbilt talc workers,
4 would be asking the company for data, data such as
5 work histories, job descriptions, things of that
6 sort. So that's underlying data. And that type
7 of information I have.
8 BY MS. ABRAMS:
9 Q. So, in other words, R.T. Vanderbilt
10 commissioned a study and gave out the personal
11 information of its employees to the researcher and
12 you have a copy of that information; is that
13 correct?
14 MR. RADCLIFFE: Objection. Misstates
15 prior testimony. Misleading. Vague and
16 ambiguous.
17 THE WITNESS: I wouldn't call it personal
18 information. It's work history information that
19 you would need in order to do a study of this
20 sort.
21 BY MS. ABRAMS:
22 Q. So did he have the person's name?
23 A. The researchers would have employee names
24 because they search national -- that's something
25 that they do separately.

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1 Q. Did R.T. Vanderbilt give the researchers,
2 along with work histories and job descriptions,
3 the name of the employee to match up to the work
4 history and the job description?
5 A. Yes. They would have access to that.
6 Q. Through R.T. Vanderbilt?
7 A. That's the only way they would get it,
8 yes.
9 Q. And through R.T. Vanderbilt did they send
10 any medical information on that person?
11 MR. RADCLIFFE: Objection. Vague.
12 BY MS. ABRAMS:
13 Q. To the Honda people.
14 MR. RADCLIFFE: Objection vague and
15 ambiguous.
16 THE WITNESS: Well, it's a mortality
17 study, so they're reporting on workers who are
18 deceased.
19 BY MS. ABRAMS:
20 Q. Okay. Did they send any medical records
21 on those workers?
22 MR. RADCLIFFE: Same objection.
23 BY MS. ABRAMS:
24 Q. Any records of PFTs or chest x-rays or
25 pathology or any other medical information to go

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1 along with the name, the work history and the job
2 description?
3 MR. RADCLIFFE: Same objection.
4 BY MS. ABRAMS:
5 Q. To Mr. Honda.
6 A. For a mortality study, that type of
7 information is generally not provided. It
8 wouldn't be useful for the study. They want to
9 know who worked there and what their vital status
10 is, are they alive or dead. If they are deceased,
11 then they want to know when they died and they
12 want to know the reason for their death as --
13 typically as articulated on the death certificate.
14 They have a process -- all epidemiologists
15 have this process of collecting that information.
16 All sorts of confidentiality agreements are signed
17 and so forth in order for them to obtain it. They
18 obtain that independently. That's not obtained
19 through the Vanderbilt Company.
20 Q. I'm going to move to strike that answer.
21 MS. ABRAMS: Could you read the question
22 back.
23 BY MS. ABRAMS:
24 Q. And please answer the question.
25 (Record read.)

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1 MR. RADCLIFFE: Objection. Vague.
2 Ambiguous. Misstates prior testimony. Asked and
3 answered.
4 THE WITNESS: I think when I said that's
5 not the type of information that they would
6 collect.
7 MS. ABRAMS: You said that's not the type
8 of information they would collect. What I want to
9 know --
10 THE WITNESS: PFTs, x-rays --
11 BY MS. ABRAMS:
12 Q. Excuse me. What I want to know is, did
13 R.T. Vanderbilt send, along with name, work
14 history and job description, any medical
15 information regarding the subjects of the study to
16 Mr. Honda?
17 MR. RADCLIFFE: Objection. Asked and
18 answered.
19 BY MS. ABRAMS:
20 Q. Yes or no?
21 A. No.
22 MR. RADCLIFFE: Objection. Asked and
23 answered.
24 BY MS. ABRAMS:
25 Q. Did R.T. Vanderbilt send to Honda or his

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1 people the death certificates and the reasons for
2 the deaths of these individuals?
3 A. No.
4 Q. Where did they obtain that information?
5 A. Oh, boy. There's an NCR I think is the
6 National Registry of -- I have to be embarrassed,
7 I should know this name.
8 But there's a -- there's a federal program
9 through which you get this information. It's not
10 taken from company files because the company files
11 may not be complete.
12 Q. Do you have death certificates for all
13 your workers?
14 A. No, we don't. We have some death
15 certificates for workers who were eligible for
16 pension plans. The death certificates are
17 obtained as evidence that they are deceased so
18 that their pension can be initiated.
19 Q. Has R.T. Vanderbilt, to your knowledge,
20 ever accessed information from the national
21 registry?
22 A. No, I've never done that.
23 Q. How do you know that Honda got his
24 information there?
25 A. I think he says so in his paper, but

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1 that's the typical process.
2 Q. So in your files, you have Honda data that
3 you sent to him regarding the name, work history
4 and job description for workers that were in the
5 study; correct?
6 A. That's correct.
7 Q. What else -- what else is in the database
8 -- the Honda data that's in your file?
9 A. There is also exposure information in
10 terms of dust levels by job category.
11 Q. Where did those come from?
12 A. That's a compilation of reports from air
13 sampling the company did, air sampling that the
14 company has records of from the Mine Safety and
15 Health Administration air sampling that may have
16 been produced by insurance carriers over the
17 years, any air sampling from any other studies
18 that have ever been, you know, conducted by other
19 groups at the plant.
20 So it's basically all exposure information
21 that we had available to us.
22 Q. Did you send him the NIOSH data?
23 A. Sure. They had it actually.
24 Q. Who did the compilation?
25 A. There was an industrial hygienist by the

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1 name of Kent Austinstat -- please don't ask me to
2 spell his name -- at the University of Alabama. I
3 think he's the chair of the industrial hygiene
4 department there now.
5 Dr. Honda -- or Dr. Austinstat, he did the
6 exposure assessment portion of that mortality
7 study.
8 Q. So if I understand you correctly, you sent
9 a bunch of data and they did a compilation, or did
10 R.T. Vanderbilt do the compilation?
11 MR. RADCLIFFE: Object to the form. Vague
12 and ambiguous.
13 THE WITNESS: They did the compilation.
14 They used the data that we had in our files, data
15 that they could find from any other source, and
16 they also did their own air sampling in addition.
17 And they also used a questionnaire that
18 had been actually developed by NIOSH which was
19 designed to solicit long-term employee opinions as
20 to high, low, medium dust levels in various
21 activities over -- over the span of the -- of the
22 operations of the plant which began in 1948.
23 So they had historical dust sampling data
24 from all sources. They took their own dust
25 sampling data and they also had independently

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1 estimates by long-term employees as to high,
2 medium and low dust levels at various jobs and
3 activities.
4 They used all those three things to help
5 determine exposure levels by job category for
6 periods of years.
7 BY MS. ABRAMS:
8 Q. And you have all those -- that raw data in
9 your files?
10 MR. RADCLIFFE: Object to the form. Vague
11 and ambiguous.
12 THE WITNESS: A good part of it.
13 BY MS. ABRAMS:
14 Q. And you have the questionnaires that were
15 filled out?
16 A. Yes, I do.
17 MS. ABRAMS: I would ask that you produce
18 the Honda data and the questionnaires. Because
19 you produced the Honda article, we're entitled to
20 what went into that article, including
21 questionnaires of the long-term employees on
22 exposure levels.
23 Will you agree to produce that?
24 MR. RADCLIFFE: I'll agree to produce
25 stuff that is not protected from disclosure by

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1 privacy reasons and I'm not sure that it hasn't
2 been produced already. But if it hasn't --
3 MS. ABRAMS: Well, I can tell you we've
4 never gotten questionnaires from long-term
5 employees, so we'd be happy to see those along
6 with all the other data, to my knowledge.
7 MR. RADCLIFFE: All right. As long as
8 they're not protected from disclosure for privacy
9 reasons.
10 BY MS. ABRAMS:
11 Q. To your knowledge, has anyone ever copied
12 the raw Honda data and the questionnaires from
13 your files?
14 A. I don't believe anyone has.
15 Q. Let me ask you this: Is it fair to say
16 that it is likely that some of those long-term
17 employees that answered questionnaires in that
18 Honda study likely at some point worked for
19 International Talc prior to working for
20 R.T. Vanderbilt?
21 A. I don't know. I don't think so, but I
22 don't know. I don't want to speculate.
23 Q. Well, then the reverse of that would be
24 the Honda data -- the Honda study in that event
25 would not include International Talc workers?

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1 MR. RADCLIFFE: Objection.
2 BY MS. ABRAMS:
3 Q. To your knowledge.
4 MR. RADCLIFFE: I still object. He said
5 he couldn't answer it. That would require
6 speculation.
7 MS. ABRAMS: Well, what he says is a
8 matter of the record.
9 So why don't you read the question back.
10 THE WITNESS: Yes, if you would.
11 (Record read.)
12 MR. RADCLIFFE: Objection. Asked and
13 answered. Calls for speculation.
14 BY MS. ABRAMS:
15 Q. To your knowledge.
16 A. I guess I need a little more
17 clarification. I mean, to the extent that
18 Vanderbilt employed workers from International
19 Talc, they would certainly be included in the
20 study.
21 Q. That was my point.
22 A. In terms of dust levels for International
23 Talc, that would not be.
24 Q. Understood.
25 Why don't you continue and let us know

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1 what's in that file that you brought.
2 A. Okay.
3 Q. Just in general what you brought.
4 A. In general, this is a listing of the --
5 Q. That's the third page?
6 A. Yes. This is the listing of the lung
7 cancer cases that were reported in the Honda
8 study, so this is the most up-to-date compilation
9 of that experience.
10 Q. What was the date of the Honda study, if
11 you recall?
12 A. Well, it was published in 2002, I believe.
13 Q. So those were lung cancers prior to 2002?
14 A. No. The study itself had a vital status
15 cutoff of 1990.
16 Q. So you brought with you today a
17 compilation of lung cancers prior to 1990?
18 A. Yes, as reported in the Honda study. It's
19 the most up-to-date.
20 Q. And it's your estimation that the most
21 up-to-date information on the lung cancers coming
22 out of the Vanderbilt talc mines is information
23 that dates prior to 1990, 19 years ago?
24 A. Right. It would include the work
25 population up to that date.

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1 Q. And in your files, do you have information
2 that there had been other lung cancers from any
3 other Vanderbilt mines in the ensuing 19 years
4 since 1990?
5 MR. RADCLIFFE: Object to the form. Vague
6 and ambiguous.
7 THE WITNESS: I know there had been other
8 lung cancers, but I don't have records like an
9 epidemiologic study where I can say, I know
10 there's been "X" number. I don't know. I'm aware
11 of one or two, you know, over a period of the next
12 18, 19 years, and you would expect one or
13 two more, a few more.
14 MR. RADCLIFFE: Object. Move to strike as
15 nonresponsive.
16 BY MS. ABRAMS:
17 Q. Well, how did you become aware of those
18 one or two?
19 A. They may be part of a comp claim which I
20 would see, be aware of. I know of two instances
21 there. And other than that, I can't think of any
22 that I know specifically.
23 Q. Has R.T. Vanderbilt, to your knowledge,
24 made any attempt to compile from 1990 to the
25 present, the number of lung cancers that have

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1 occurred since -- from work by talc miners in the
2 R.T. Vanderbilt mines?
3 A. No, we haven't.
4 Q. What else did you bring?
5 MS. MCLEOD: I'm having trouble hearing.
6 Can the court reporter read back the question and
7 the answer?
8 (Record read.)
9 BY MS. ABRAMS:
10 Q. Go ahead.
11 A. This is the PowerPoint slide that reflects
12 the prevalence of smoking among white males in the
13 United States from 1965 through 1998 contrasted
14 with the smoking prevalence of Vanderbilt miners
15 and millers for the same period of time.
16 Q. Who created that slide?
17 A. I created the slide.
18 Q. When did you do that?
19 A. Four or five years ago.
20 Q. And what purpose did you do that for?
21 A. Well, we have had this excess lung cancer
22 that's been persistent in every mortality study
23 done of those talc workers. And, of course,
24 people have inappropriately made the leap that,
25 well, it must be caused by the talc.

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1 But clearly, one of the key factors in
2 lung cancers is smoking. If you don't have
3 smoking information and you're trying to address
4 the causation of lung cancer, you're very
5 restricted in what you can intelligently talk
6 about.
7 And this was one of the areas that we felt
8 needed more study and more investigation. We do
9 have this persistent excess in lung cancer
10 question: Is it associated with the talc
11 exposure? And to answer that question, you do
12 have to look at smoking prevalence to see if that
13 may or may not explain where that excess is, or
14 why that excess may exist?
15 Q. So you created this out of curiosity or
16 for what purpose?
17 A. To get at that very question. The data
18 that I -- that I recorded was the information that
19 was recorded on pulmonary function test
20 questionnaires in which they asked the employee,
21 do you smoke, how many packs a day, we do have
22 those records. And we were able to go back and
23 look at that.
24 But it also coincides with a case control
25 study that was done by Dr. Gamble who did make an

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1 effort to address this issue of smoking.
2 MS. ABRAMS: Could you read the question
3 back, please.
4 (Record read.)
5 BY MS. ABRAMS:
6 Q. I won't move to strike, but your answer
7 was nonresponsive.
8 Did you ask the employees permission
9 before you used their data to create this slide?
10 A. Well --
11 Q. That's a "yes" or "no" question.
12 Did you ask your employees for permission
13 before you created this information?
14 A. I'd rather explain. No, we did not.
15 Q. Now, you said "we" wanted to find out why
16 there was this excess in lung cancer. Who is
17 "we"?
18 A. Well, I'm referring to Vanderbilt. It
19 would be myself in this case.
20 Q. And who else?
21 A. It would just be me that looked at this.
22 Q. So it was your own curiosity that made you
23 do this, or was there some litigation or other
24 matter that prompted you to do this rather than --
25 well, you're not an expert epidemiologist;

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1 correct?
2 A. That's correct.
3 Q. And you're not a medical doctor?
4 A. That's correct.
5 Q. And you don't have an advanced degree in
6 research methodology?
7 A. No.
8 Q. But you decided to look in the employees'
9 file, get their smoking information and put
10 together this slide; correct?
11 A. Yes.
12 Q. And has this slide been used in testimony
13 in litigation?
14 A. I don't believe so.
15 Q. Did you provide this to people like Honda
16 and others for their study information?
17 A. No. This would not have -- Honda did not
18 do an evaluation of smoking.
19 Q. Now, have you ever taken any medical
20 courses on smoking and asbestos?
21 A. No, I have not.
22 Q. Do you know what the synergistic effects
23 of smoking and asbestos are?
24 A. I understand there is a synergistic
25 effect. But to what degree or extent, I'm not

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1 familiar.
2 Q. Why don't you tell us what your
3 understanding of the synergistic effect between
4 smoking and asbestos is.
5 A. Well, my understanding is that smoking can
6 retard a number of the pulmonary defenses against
7 any particular asbestos or talc dust or Kalen dust
8 or any particular -- so to the extent that smoking
9 can reduce the lung's natural ability to, you
10 know, clear a particulate and prevent particulate
11 from getting to the air exchange region, smoking
12 would enhance the effect of any dust exposure.
13 That's my understanding from what I have read.
14 Q. I'm going to move to strike that because
15 it was not responsive to my question.
16 What I asked you was, do you have any
17 particular understanding about the synergistic
18 effect between smoking and asbestos? And if so,
19 could you tell us about the synergistic effect
20 between smoking and asbestos particularly?
21 MR. RADCLIFFE: I object. That's not what
22 you asked.
23 But go ahead and answer the question.
24 THE WITNESS: Only to the extent that I
25 described, that asbestos is a particulate, a dust

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1 like any other dust, and, as I described, smoking
2 would enhance the effect of exposure to that dust
3 or any other, as I understand it.
4 BY MS. ABRAMS:
5 Q. Have you -- are you aware that there is
6 literature that specifically addresses the
7 synergistic effect between smoking and asbestos?
8 A. I am aware there's literature that does
9 that.
10 Q. Have you read the specific literature that
11 addresses the specific synergistic effect between
12 smoking and asbestos?
13 A. I've read so much. But I would have to
14 say no.
15 Q. Have you talked to anybody about that?
16 A. I have.
17 Q. Who have you talked to about that?
18 A. I've talked to our pulmonary consultant in
19 this respect.
20 Q. Who is that?
21 A. That's Dr. Boehlecke, Brian Boehlecke,
22 B-o-e-h-l-e-c-k-e. That one I can spell.
23 Q. Did Dr. Boehlecke give you any indication
24 of what the multiplier effect was specifically
25 between smoking and asbestos in contributing to

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1 the risk of lung cancer?
2 A. No. Specifically, he didn't.
3 Q. Do you understand that there is a
4 multiplier effect as opposed to an additive
5 effect?
6 MR. RADCLIFFE: I'm going to object.
7 Counsel, can you point me to the category where
8 you asked that Vanderbilt produce a witness to
9 respond to this line of questioning?
10 MS. ABRAMS: Well, for the record, he's
11 your witness. He brought a bunch of stuff. He's
12 talking about the impact of lung cancer and
13 smoking. You had him bring these documents. Now
14 I'm asking him about the documents. That's why
15 you brought him. That's what you asked him to
16 bring and that's what he's talking about.
17 MR. RADCLIFFE: No. I didn't ask him to
18 bring this. He decided to bring it upon his own.
19 He brought it. You can ask him questions about
20 it. But you've gone beyond the chart and you're
21 asking him questions about the synergistic effect
22 between smoking and asbestos. That's not on the
23 chart.
24 MS. ABRAMS: Are you done?
25 MR. RADCLIFFE: So I'd like you to point

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1 me to the category where you asked that we produce
2 a witness to testify about this because I don't
3 believe he's been designated for this.
4 MS. ABRAMS: Are you telling him not to
5 answer?
6 MR. RADCLIFFE: I'm trying to meet and
7 confer.
8 MS. ABRAMS: I'm about done with this
9 right this. So this is my last question on that.
10 And if we can just get that done, we can move one.
11 MR. RADCLIFFE: What was the question?
12 MS. ABRAMS: I don't remember. You said
13 too much.
14 MR. RADCLIFFE: Can you scroll it back up?
15 MS. ABRAMS: He may have answered it.
16 Why don't you read it out loud so the
17 witness can hear.
18 (Record read.)
19 MR. RADCLIFFE: Same objection.
20 Go ahead and answer.
21 MS. ABRAMS: If you give a shorter answer,
22 we'll be done with this line of questioning.
23 THE WITNESS: There's an incentive.
24 BY MS. ABRAMS:
25 Q. Do you understand that there is a

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1 multiplicative effect as opposed to an additive
2 effect with respect to the impact of smoking and
3 asbestos on the risk of lung cancer?
4 MR. RADCLIFFE: Same objection.
5 THE WITNESS: You know, I don't feel
6 comfortable --
7 BY MS. ABRAMS:
8 Q. You don't understand that or you do
9 understand that?
10 A. I just don't feel comfortable with the
11 answer. I think I told you my understanding is
12 that smokers would have -- my understanding is
13 that if you're a smoker, it retards the defenses
14 of the pulmonary system, which therefore --
15 Q. We already have that answer.
16 I don't mean to interrupt you, but your
17 lawyer wants us to move on. All I'm asking you
18 is, have you ever heard there's a multiplier
19 effect as opposed to an additive effect of the
20 smoking and asbestos with respect to the risk for
21 lung cancer?
22 MR. RADCLIFFE: Same objection.
23 BY MS. ABRAMS:
24 Q. You have or you haven't heard of it?
25 A. I've heard of it.

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1 Q. Do you know any more than you've heard of
2 it?
3 A. No. I cannot speak intelligently about
4 it, so I prefer not to.
5 Q. Let's move on.
6 Let's see what else you brought in your
7 file.
8 A. Linked actually to that graph, which
9 essentially shows twice the smoking prevalence on
10 those miners and millers is a case control study
11 which I didn't see in the disk that was provided
12 to you.
13 Q. Whose study is that?
14 A. This is a study that was produced by
15 Dr. Gamble, John Gamble. It does speak to the
16 smoking issue.
17 Q. We'll probably get to the Gamble study.
18 A. Sure.
19 Q. What else did you bring?
20 A. There is also a graph. I always found
21 this particularly interesting. But what it is, is
22 a graph that compares the rate of lung cancer
23 among New York talc workers and Vermont talc
24 workers as well as the rate of anomaly respiratory
25 disease among Vermont talc workers and New York

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1 talc workers.
2 And this is a table that was taken from a
3 paper written by Dr. Lamm.
4 Q. And you brought Dr. Lamm's paper?
5 A. I brought his paper because I didn't see
6 that on the disk either.
7 Q. Why don't you put that away and tell us
8 what else you brought.
9 A. And --
10 Q. Now, did you just create that slide that
11 came from the paper to produce to us today along
12 with the paper? What I'm asking you is, this copy
13 right here that says, "Vanderbilt talc with
14 amphibole and talc versus Vermont talc without
15 Lamm study," is that something that you made
16 before you came here today?
17 A. Yes.
18 Q. For today?
19 A. For today.
20 Q. Okay. That's all I wanted to know.
21 Now, what other -- you have some more
22 slides here.
23 A. Yes. Yes, I do. And again, this is in
24 the folder called "health references," so I tried
25 to put references that I thought were pertinent to

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1 the issue of "so what's your experience with
2 people exposed to Vanderbilt talc."
3 Q. You have a slide about -- how do you say
4 his name?
5 A. Boehcleck.
6 Q. Boehcleck. And you have the Stanton
7 slide?
8 A. Yes. An animal study slide.
9 Q. You have the Smith slide?
10 A. Correct.
11 Q. You have an Addison/Davis slide.
12 You have a Wylie Mossman slide.
13 Are these slides that you've used in the
14 past, or is this something that you've created for
15 your testimony here today?
16 A. Those are slides that I created for
17 possible presentation in bits and pieces of those
18 I've used in some presentations.
19 Others I have not used yet. I just sort
20 of pulled them out because I thought they
21 summarized points that might be appropriate for
22 this deposition depending on what you ask.
23 Q. If you don't mind, just go through, and if
24 you have used them before, why don't you tell us
25 where you've used them, if you recall.

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1 A. Well, this pulmonary review findings I
2 have made presentations on health experience of
3 our talc miners and millers in a number of places.
4 Q. For example?
5 A. For example, I think the most recent was
6 two or three years ago at the ASTM, American
7 Society of Testing Materials, there was a
8 conference called the Johnson conference in
9 Burlington, Vermont that is put on by what's known
10 as a D-22 committee. This is a committee in the
11 ASTM that produces asbestos analytical standards
12 and so forth.
13 And they ask for speakers on various
14 topics. And one year, three or four years ago, I
15 presented the topic on the medical experience of
16 anvil talc workers.
17 And this was one of the slides that I used
18 which is a summary of what Dr. Boehcleck finds in
19 looking at the pulmonary data through our medical
20 surveillance program at the mine essentially
21 saying what I'm looking at and seeing over a
22 period of all these years is not something as
23 indicative of an asbestos exposure at all.
24 Q. Did you present at that conference that
25 there have been mesotheliomas reported out of the

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1 Vanderbilt mines?
2 MR. RADCLIFFE: Object to the form.
3 Argumentative.
4 BY MS. ABRAMS:
5 Q. Yes or no?
6 A. No, I didn't.
7 Q. And how about lung cancers post 1990, did
8 you talk about any lung cancers since the Honda
9 study?
10 A. No.
11 Q. Okay. Where else have you presented that
12 information?
13 A. I have to stop and think. I may have -- I
14 think I presented it during statements at the MSHA
15 hearings. They were revising their asbestos
16 standard and they asked for public comment.
17 Q. What does MSHA stand for?
18 A. Mine Safety and Health Administration.
19 Q. Did you tell them about the mesotheliomas
20 that have reported -- that have been reported out
21 of the Vanderbilt mines?
22 MR. RADCLIFFE: Objection. Argumentative.
23 THE WITNESS: No.
24 BY MS. ABRAMS:
25 Q. And what about the lung cancers since the

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1 Honda study?
2 A. No.
3 MR. RADCLIFFE: Same objection.
4 BY MS. ABRAMS:
5 Q. Anywhere else that you've presented that
6 information?
7 A. I would have to stop and think.
8 Q. Have you ever given presentations at the
9 Defense Research Institute, the DRI?
10 A. No, I haven't.
11 Q. Why don't we go on and talk about what
12 else you brought there.
13 A. Well, this is a summary as you
14 indicated --
15 Q. The Stanton material, did you --
16 A. Right.
17 Q. What -- have you presented your
18 understanding of Stanton's -- do you know what the
19 Stanton hypothesis is?
20 A. Yes.
21 Q. What is that?
22 A. Well, he's theorized that the most
23 important aspect to particulate exposure or fiber
24 risk has to do with dementia. So he did
25 experiments to test this hypothesis to see if --

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1 how valid that was. And he concluded that it was
2 a significant factor.
3 Q. Well, he had a hypothesis about the
4 dimensions of the fibers?
5 A. Yes. Longer than eight and less than a
6 quarter micrometer width was what he called his
7 critical dimension. So --
8 Q. Did he have an aspect ratio in there?
9 A. Well, whatever that is, you know, .25 to
10 8, whatever that would be.
11 Q. Well, what is it?
12 A. Well, it would certainly be over, I don't
13 know, 20 to 1 or something like that.
14 Q. So that's your understanding of Stanton is
15 20 to 1 aspect ratio?
16 A. No. Aspect ratio, as far as I'm
17 concerned, has zippo to do with risk.
18 Q. I'm asking you what Dr. Stanton reported
19 as the Stanton hypothesis. Can you tell me
20 what --
21 A. Yes, yes. I think I just did. He
22 hypothesized that particle dimension and
23 durability were the most critical aspects to fiber
24 risk and that the dimension that he felt was most
25 critical was airborne exposure to fibers that

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1 contain high prevalence of fibers that were longer
2 than eight and less than a quarter micrometer in
3 width.
4 He also mentioned that it seemed the
5 longer ones tended to have higher potency. And he
6 tested -- or he did some 72 different experiments.
7 These were --
8 Q. I just wanted to know what his hypothesis
9 was?
10 A. That's his hypothesis.
11 Q. Did he find -- was that his minimum
12 threshold that he thought would cause disease?
13 A. No. He --
14 MR. RADCLIFFE: Objection. Vague and
15 ambiguous.
16 Go ahead.
17 THE WITNESS: In his paper, I think he did
18 reference that particles that may be shorter or
19 fatter may contribute to the risk.
20 BY MS. ABRAMS:
21 Q. Did you present Dr. Stanton's -- the slide
22 at the same events that you've just described to
23 us?
24 A. Yes. And earlier, this information was
25 available for quite some time. So it was used in

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1 OSHA hearings.
2 Q. Did you report on his hypothesis?
3 A. Yes. And the reason for this slide was
4 that among the 72 samples were two from two
5 Vanderbilt talcs.
6 Q. I understand that. But when you reported
7 on Dr. Stanton's theory, did you explain that he
8 also, in addition to his hypothesis said that
9 shorter and fatter fibers also posed a risk?
10 MR. RADCLIFFE: Objection. Argumentative.
11 Vague and ambiguous.
12 THE WITNESS: No. I reported what his
13 conclusion was which was that particles as
14 critical dimensions stated was a quarter
15 micrometer longer than eight, and that's
16 essentially what's reflected on that center.
17 BY MS. ABRAMS:
18 Q. Okay. And then you have a slide on Dr.
19 Smith's study. For Dr. Smith's study, did you use
20 this slide at the events that you described to us?
21 A. Yes.
22 Q. I'm sure we'll get to Dr. Smith's study,
23 so I'd actually like to get through your file in
24 the next little bit. Addison Davis, peritoneal
25 injection study. Is that something that was

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1 produced to us?
2 A. I don't know.
3 Q. Did you see it on the disk?
4 A. I did, but I didn't have a lot of -- I
5 scanned it very quickly. It may have been there.
6 Q. When was this published?
7 A. I think as I indicated on there, this is
8 an interim report, I think. This was actually
9 reported at the OSHA hearings in 1990, and this
10 was just prior to their publication.
11 And, again, this is basically was an
12 experiment to contrast tremolite asbestos with
13 tremolite prismatic particles or cleavage
14 fragments. It did not utilize Vanderbilt talc or
15 the tremolite in Vanderbilt talc. But it did --
16 it was a study that specifically addressed the
17 difference between tremolite asbestos and
18 tremolite cleavage material.
19 MS. ABRAMS: Could you read the question
20 back, please.
21 (Record read.)
22 MS. ABRAMS: I'll move to strike the
23 answer as nonresponsive.
24 THE WITNESS: We can get you the published
25 paper.

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1 BY MS. ABRAMS:
2 Q. Thank you.
3 And then Wylie Mossman, 1997, did you use
4 this slide at the talks that you described to us?
5 A. Well, certainly not at the OSHA hearings
6 because it was published after 1990.
7 Q. Correct.
8 A. But I've used it at the other
9 presentations that I mentioned.
10 Q. We're going to copy your file and review
11 it and then we'll ask you some questions about it
12 later.
13 A. Sure.
14 Q. You brought another file entitled
15 "Mouldene talc." Just let me ask you, you have a
16 health file in your office?
17 A. Yes.
18 Q. Is that file about the size of that stack
19 of papers up there, or more or less?
20 A. The way I have it divided is I have health
21 studies that are specific to Vanderbilt talc that
22 would be human, animal and cell.
23 I have another file that are health
24 studies that are not specific to Vanderbilt talc
25 but have some link or bearing to the issues that

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1 pertain to Vanderbilt talc.
2 And then I have a third folder that
3 contains summary evaluations, health summary
4 evaluations from various researchers on the status
5 of the scientific literature as it pertains to
6 cleavage fragments and specifically to Vanderbilt
7 talc, has references to Vanderbilt talc.
8 Q. How big are these files?
9 A. If you put those three files together,
10 they would be maybe 7, 8 inches.
11 Q. Okay. So is that bigger or smaller than
12 that stack?
13 A. I don't know. You'd have to measure it.
14 That is what I'm telling you it would be.
15 Q. So you don't have an opinion as to whether
16 it would be more or less than the papers sitting
17 on the table?
18 A. Well, rather than speculate on distances
19 by a ruler, I'd probably want to look at the
20 documents and tell you whether they're there or
21 not.
22 Q. Okay. We'd be happy to have you do that.
23 So we'll take a break and you can look through the
24 documents and let us know if there's anything
25 missing; okay?

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1 A. Fine.
2 Q. We'd appreciate that.
3 MR. RADCLIFFE: Anything missing from
4 what?
5 MS. ABRAMS: From the pile that we got.
6 MR. RADCLIFFE: The pile you got was
7 responsive to what you asked for.
8 MS. ABRAMS: So -- well, I'm sure we asked
9 for everything that had to do with health.
10 BY MS. ABRAMS:
11 Q. But -- you've been designated as an expert
12 in this case, do you know that?
13 A. No.
14 Q. Well, I'm sure we're going to see your
15 files.
16 A. You're welcome to.
17 Q. Because you're going to testify as an
18 expert. I think we're entitled to all of them.
19 What other files do you have in your
20 office --
21 MR. RADCLIFFE: Well, if you're entitled
22 to all of them, you are. But you haven't asked
23 for all of them. You asked for very specific
24 documents.
25 MS. ABRAMS: Well, it's a matter of record

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1 what we asked for.
2 MR. RADCLIFFE: Right. So if you're
3 implying now that you did ask for something in the
4 past, but you didn't, that's not accurate.
5 MS. ABRAMS: We have asked Vanderbilt for
6 basically everything in your possession. It's in
7 our document request, it's in our COR PMK request.
8 I don't know if you've reviewed all that, but I
9 have, and we basically asked for all of it.
10 MR. RADCLIFFE: I can't agree with that.
11 I can't agree that you've asked for everything in
12 Vanderbilt's possession.
13 MS. ABRAMS: We don't have to agree.
14 We're just going to ask the questions here.
15 MR. RADCLIFFE: Sure. And I'm asking if
16 you want to point me to the category where you've
17 asked --
18 MS. ABRAMS: If you want to tell him not
19 to answer, just tell him not to answer.
20 MR. RADCLIFFE: I'm just trying to meet
21 and confer with you.
22 MS. ABRAMS: I've met and conferred with
23 you also.
24 BY MS. ABRAMS:
25 Q. Excuse me. I forgot these. These were on

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1 the bottom here.
2 A. They're just duplicates of what we
3 mentioned already.
4 Q. These are extra copies of the lung
5 cancers?
6 A. Yes.
7 Q. And do you know why you brought extra
8 copies of the lung cancers?
9 A. In case you wanted to talk about them in
10 some detail, then you'd have it in front of you.
11 Q. So you won't mind if I just pull one of
12 these out of here right now?
13 A. Of course not.
14 Q. Okay. Now you have a file called
15 Mouldene. Where did you find these documents?
16 A. Well, I maintain a file on all our
17 products and talc being one. And that file
18 contains materials that -- correspondence, memos,
19 inquiries by customers that have any type of
20 health link to it.
21 So I went to that file and I looked for a
22 file labeled "Mouldene," and that's the -- with a
23 couple of exceptions, that's the material that was
24 in it. The exceptions are copies of the
25 PowerPoint slides that pertain to Mouldene, I

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1 believe.
2 Q. So is it correct, Mr. Kelse, that
3 everything in your office that you possess with
4 respect to Mouldene talc is in this file?
5 MR. RADCLIFFE: Objection. Overly broad,
6 vague. Ambiguous.
7 Go ahead.
8 THE WITNESS: That's my understanding,
9 that's all I had.
10 BY MS. ABRAMS:
11 Q. Now, I'm not going to go over all of your
12 qualifications and all of that because you've
13 testified to that in other places and you don't
14 need to -- we don't need to go through your entire
15 job history. I'm sure you don't mind that.
16 A. Not at all.
17 Q. So I just want to move on and try to get
18 to some of the things that we are here to talk
19 about today.
20 One of the things we're here to talk about
21 is Vanderbilt's records because you've been
22 designated as the custodian of records for various
23 categories of things that we've asked for.
24 I think we have established already that
25 you did not specifically go through any of your

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1 files other than to look for Mouldene information
2 and the few things that we just talked about to
3 find documents that were responsive to anything in
4 our request for person most qualified and
5 custodian of records; is that fair?
6 MR. RADCLIFFE: Objection. Misstates
7 prior testimony.
8 THE WITNESS: Yeah, it's as I stated. I
9 did look through the disk very briefly and
10 identified a couple documents that I thought
11 should be included, and that's -- I brought a
12 couple of those along, as I indicated to you. But
13 beyond that, that's the extent.
14 MS. ABRAMS: Just move to strike and ask
15 you to read the question back.
16 (Record read.)
17 MR. RADCLIFFE: Objection. Misstates
18 prior testimony. Argumentative. And it's asked
19 and answered.
20 BY MS. ABRAMS:
21 Q. You can answer. Did you look through your
22 documents specific to this case was the question.
23 MR. RADCLIFFE: Objection. Same
24 objections.
25 THE WITNESS: Only to the extent of what I

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1 produced here for you.
2 BY MS. ABRAMS:
3 Q. So you actually looked in your files for
4 these things, but you didn't look other than that
5 for anything else responsive to Exhibit 1?
6 A. No, I was not --
7 MR. RADCLIFFE: That misstates prior
8 testimony. He told you that he looked through the
9 disk. He glanced at what's on the disk.
10 MS. ABRAMS: I don't want to argue with
11 him. I'm talking to him. So please don't
12 interrupt or I'm going to get a court order to not
13 have colloquy and not have discussion.
14 So I ask a question, I'd like you to --
15 MR. RADCLIFFE: We can do that as long as
16 you are not misleading.
17 MS. ABRAMS: You need to not talk over me
18 and just wait one at a time.
19 Could you read the question back, please.
20 (Record read.)
21 MR. RADCLIFFE: Same objections.
22 BY MS. ABRAMS:
23 Q. Exhibit 1 being this document that I don't
24 believe you reviewed until you got here today;
25 correct?

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1 A. That's right.
2 Q. So you didn't look at Exhibit 1 and then
3 go through your files and look for the things
4 responsive in Exhibit 1; is that correct?
5 A. Maybe I can help you with this.
6 Q. No. I just want an answer to that
7 question.
8 A. I'm going to give you an answer. My
9 answer is no one asked me to look through this and
10 produce documents that were asked for here.
11 Q. That's fine.
12 A. This is a legal case, so I'm assuming
13 lawyers, you know, have done that because they
14 sure as heck have gone through my files
15 extensively.
16 Q. So the lawyers, then, are the custodians
17 for the documents that we're talking about; is
18 that correct?
19 MR. RADCLIFFE: Objection. Argumentative.
20 THE WITNESS: They come from my files.
21 BY MS. ABRAMS:
22 Q. That were copied from your files four or
23 five years ago; correct?
24 They have them in their possession, they
25 get the notice, they go through them, they produce

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1 the documents; is that how it works?
2 A. My understanding is that they have a
3 record of my documents that I maintain, and I am
4 not sure about whatever updates they may have made
5 to those documents.
6 Q. What I'm asking you is that when this
7 document came in, the lawyers were the ones that
8 went through it, picked out what to send and sent
9 it. You didn't do that part; correct?
10 A. That's correct.
11 Q. Do you know which lawyer particularly does
12 that kind of thing?
13 A. I believe it was someone at Hawkins &
14 Parnell.
15 Q. Do you know the name of that person?
16 A. Probably Peter York. But, again, that's
17 just a --
18 MR. RADCLIFFE: Don't speculate.
19 THE WITNESS: Then I won't.
20 BY MS. ABRAMS:
21 Q. I made a little chart because Mr. Chusid
22 kindly sent us a letter and said what you were
23 going to be talking about.
24 I don't know where my chart is, that's why
25 I'm flipping through the papers.

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1 So I need to get a copy of the letter.
2 MR. RADCLIFFE: You have a document that
3 you took from his file underneath your pages. Can
4 we make sure that that --
5 MS. ABRAMS: He gave that to me.
6 MR. RADCLIFFE: We're producing it today.
7 MS. ABRAMS: I know, but he's got three
8 more copies and we're going to get his folder.
9 He's got three copies of this lung cancer document
10 in his folder and we're going to have a copy of
11 it, and it's all going to be marked. Okay?
12 MR. RADCLIFFE: Okay. As long as it's
13 marked.
14 MS. ABRAMS: He gave me this as a little
15 gift so I can have it for myself. Thank you.
16 So if you're objecting to that, I'll give
17 it back to him. But I just want --
18 MR. RADCLIFFE: I just want to make sure
19 it's marked. That's all I'm asking.
20 MS. ABRAMS: I'm not marking it for the
21 record right this second. We're going to mark all
22 of this for the record.
23 MR. RADCLIFFE: As long as we have an
24 agreement that that document will be marked, I'm
25 good.

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1 MS. ABRAMS: I know you want it to be
2 marked.
3 BY MS. ABRAMS:
4 Q. Okay. Now, you are not here to talk about
5 your document retention policies, so we'll move on
6 from there.
7 MS. ABRAMS: Now, I just want to represent
8 that, Mr. Chusid, when you sent the letter, you
9 sent it in reference to the PMK designations and
10 not the COR designations because the numbering is
11 different.
12 So we just have to go through this and I'm
13 just going to ask him whether he's a COR. If you
14 have helpful information on that, you can let me
15 know; okay?
16 MR. CHUSID: The letter that I sent you,
17 the second paragraph goes through the second
18 category of documents.
19 MS. ABRAMS: Right. It tracks the person
20 most qualified categories which are not the same
21 as -- the same numbering as the COR.
22 MR. CHUSID: Right. To the extent that
23 the categories are similar or identical that Mr.
24 Kelse is the custodian of records --
25 MS. ABRAMS: They may or may not be, which

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1 is what I'm referring to.
2 You help me along here if he's not the
3 right person; okay?
4 So I'm going to go through this document
5 which I'm marking as Exhibit 1.
6 Apparently, Mr. Vanderbilt, Paul
7 Vanderbilt, has been designated as the person most
8 knowledgeable and custodian of Vanderbilt's record
9 retention policy; is that your understanding, that
10 he's the person best to talk to about that?
11 MR. RADCLIFFE: Objection. Beyond the
12 scope of the deposition.
13 THE WITNESS: Again, I really don't know
14 what those terms mean. I expect he was asked to
15 appear to answer questions that pertain to that,
16 so whatever that is.
17 BY MS. ABRAMS:
18 Q. Is that something that you know about, the
19 record retention policy?
20 MR. RADCLIFFE: He's not designated as the
21 person.
22 THE WITNESS: No. My job is occupational
23 health.
24 BY MS. ABRAMS:
25 Q. Now, you brought a file about Mouldene,

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1 but you have not been designated as the person
2 most knowledgeable about the presence of the
3 asbestos in Mouldene talc.
4 Are you prepared to talk about that today?
5 A. Only within the confines of what's in my
6 file, but those are the documents, I guess the
7 term is "speak for themselves," but I've read
8 them.
9 MR. RADCLIFFE: Can I make a correction
10 here, that I'm looking at Mr. Chusid's letter?
11 MS. ABRAMS: Sure.
12 MR. RADCLIFFE: No. I'm sorry. I forgot
13 that there was no No. 3. I apologize.
14 MS. ABRAMS: It's a little bit mixed up
15 which is why I have to do this a little bit --
16 MR. RADCLIFFE: Mr. Kelse is not
17 designated for No. 2. He is designated for No. 4.
18 MS. ABRAMS: For No. 2 of the --
19 MR. RADCLIFFE: The PMQ.
20 MS. ABRAMS: Okay. Right.
21 BY MS. ABRAMS:
22 Q. Right. And you're going to talk about
23 studies on the presence of asbestos in Mouldene
24 talc.
25 MR. RADCLIFFE: He is designated for that.

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1 So he is designated to testify about studies on
2 Mouldene talc.
3 BY MS. ABRAMS:
4 Q. Is it your understanding that with respect
5 to everything in R.T. Vanderbilt's possession
6 regarding studies of Mouldene talc is in this
7 folder?
8 A. It's what I have.
9 Q. Let's just try to talk about -- a little
10 bit about some background on this Mouldene issue.
11 Do you know what Mouldene talc is?
12 MR. RADCLIFFE: Objection to the form.
13 Vague and ambiguous. The preamble is not a
14 question.
15 THE WITNESS: Yes, I know what it is based
16 upon the information in my file. Can I -- that's
17 why I brought the file so I can look back at it
18 because Mouldene was a product that was sold, a
19 material that was sold by Vanderbilt as these
20 files indicate, for four or five years in the mid
21 '70s, so that predates me by almost 20 years.
22 MR. RADCLIFFE: I object. Nonresponsive.
23 THE WITNESS: Could you give me that
24 question then again?
25 MS. ABRAMS: You have to let him finish

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1 his answer and then you can make your objection.
2 You're not supposed to coach the witness.
3 MR. RADCLIFFE: I'm not coaching the
4 witness.
5 MS. ABRAMS: Could you read the question
6 and answer back.
7 (Record read.)
8 MR. RADCLIFFE: Same objections.
9 BY MS. ABRAMS:
10 Q. Do you know where it got the name
11 Mouldene?
12 A. I have a pretty good idea, but I'm not
13 going to speculate. It wasn't a Vanderbilt name.
14 Q. It was from International Talc; correct?
15 A. Yes, that's my understanding.
16 Q. And it came out originally from
17 International Talc.
18 Do you know where they got the name
19 from?
20 A. No.
21 Q. Do you have any idea, an estimate of why
22 they called it Mouldene?
23 A. I have no idea.
24 Q. Do you know, is there -- are there -- is
25 there information anywhere on the constituent

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1 elements of Mouldene talc?
2 A. Yes, there is.
3 Q. Where is that information?
4 A. I rely on this one analysis by Dr. Wylie
5 dated July 28, 1989, as the only analytical report
6 I had in my file.
7 Q. That was a retest, wasn't it, Dr. Wylie
8 was doing a retest of some material?
9 A. I'm not sure what you mean by "retest."
10 She did an analysis of Mouldene.
11 Q. Where did she get it from?
12 A. It was sent to her by Dr. Thompson.
13 Q. Where did he get it?
14 A. I don't know.
15 Q. Had that sample ever been tested before?
16 A. I don't know. I have no record of any
17 other tests.
18 Q. Do you know where Mouldene talc came from?
19 A. It came from a mine that's known as
20 Talcville.
21 Q. Where is Talcville?
22 A. It's in the Edwards Belknap mining
23 district in upstate New York, roughly 15 miles to
24 the northeast of the town of Gouverneur, New York.
25 It's approximately four or five miles from

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1 the mine that Vanderbilt has predominantly used
2 over the years. The Arnold pit. It's four or
3 five miles to -- I think it's to the west of
4 there.
5 Q. Do you have in your office anywhere like a
6 geo map or some kind of map that shows exactly
7 where that mine is in relation to the other
8 Vanderbilt mines?
9 A. Yes, I do.
10 MR. RADCLIFFE: Objection. Beyond the
11 scope.
12 BY MS. ABRAMS:
13 Q. And what do you call that?
14 MR. RADCLIFFE: Objection. Beyond the
15 scope.
16 THE WITNESS: I don't know what the exact
17 name on it is. It indicates the various mining
18 companies that operated and where their mines were
19 located over decades.
20 BY MS. ABRAMS:
21 Q. If I were to ask for that document, what
22 would I ask for so that Vanderbilt would know what
23 I was asking for?
24 MR. RADCLIFFE: Same objection.
25 THE WITNESS: Well, if you ask me, you

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1 could just say a map indicating the sites of
2 mining facilities, historical mining sites in the
3 district.
4 BY MS. ABRAMS:
5 Q. Do you have a geological map also that
6 would show the constituents of the minerals in the
7 ground in the various mines?
8 A. I have one for the area that we have
9 historically mined, the Arnold pit and the
10 underground mine. I don't think I have anything
11 that extends over to Talcville.
12 Q. Do those things exist somewhere else, for
13 example, in files of mining agencies?
14 A. I don't know for certain.
15 Q. Do you know, does -- does Vanderbilt --
16 well, does that mine have a designation, the
17 Talcville mine?
18 A. I believe it was referred to as Mine 3,
19 but -- rather than the numbers, I would just name
20 it as Talcville, then there's no confusion as to
21 what you're talking about.
22 Q. If we looked at historical documents and
23 they showed Mine 3, was there a mill associated
24 with Mine 3 that would have milled the material?
25 MR. RADCLIFFE: Objection. Beyond the

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1 scope.
2 BY MS. ABRAMS:
3 Q. If you know.
4 A. Well, International Talc had a mill in
5 which it processed its ore, so obviously that
6 would have been a mill that processed ore from
7 Talcville, and R.T. Vanderbilt purchased all the
8 assets of International Talc in 1974 which would
9 have included the mill as well.
10 Q. Does that mill still operate?
11 A. No, it does not.
12 Q. Did that mill -- after Vanderbilt bought
13 the mill, did it have a designation? Was it
14 Mill 3?
15 MR. RADCLIFFE: Objection. Beyond the
16 scope.
17 MS. ABRAMS: To match Mine 3, if you know.
18 MR. RADCLIFFE: Same objection.
19 THE WITNESS: I don't recall what the
20 designation is. It was a different mill obviously
21 than the one Vanderbilt has.
22 BY MS. ABRAMS:
23 Q. So does Vanderbilt have a Mill No. 3?
24 MR. RADCLIFFE: Same objection. Counsel,
25 none of these questions are within the matters on

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1 which you requested a witness. Mr. Kelse has not
2 been designated as the person most knowledgeable
3 on these issues.
4 MS. ABRAMS: He's designated to talk about
5 Mouldene studies.
6 MR. RADCLIFFE: He's designated in
7 Response No. 4, "Studies on the presence of
8 asbestos in the Mouldene talc."
9 MS. ABRAMS: Well, in order to study
10 Mouldene talc, you need to know where it comes
11 from and what it is. So I'm asking him for his
12 knowledge of that and see if he has foundational
13 knowledge about Mouldene talc.
14 BY MS. ABRAMS:
15 Q. You can answer the question.
16 MR. RADCLIFFE: I disagree with your
17 explanation.
18 MS. ABRAMS: Well, you're not the judge.
19 Why don't you read the question back.
20 (Record read.)
21 THE WITNESS: And my answer is, I'm not
22 sure. We can get you that information. There's
23 no secret.
24 BY MS. ABRAMS:
25 Q. I'm sure not.

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1 A. I just don't know what it was.
2 Q. I think what I was asking you was whether
3 Vanderbilt has a Mill 3 also, if you know?
4 MR. RADCLIFFE: Same objection.
5 THE WITNESS: Well, we had a second mill
6 and it was devoted to the processing of
7 wollastonite.
8 BY MS. ABRAMS:
9 Q. Was it Mill 3, though?
10 A. It might have been. I don't know for
11 certain. But we can check that.
12 Q. I just don't want to be confused. When I
13 read documents that have studies that talk about
14 Mill 3, I want to know if that's the IT mill or
15 not.
16 Do you know the answer to that?
17 A. As I said, I'm not absolutely sure. I'd
18 rather go back, find out, so I don't give you an
19 incorrect answer. But yes, there was definitely a
20 mill that was devoted to the processing of talc
21 that International owned.
22 Q. What do you know about -- what is your
23 understanding of -- strike that.
24 When Vanderbilt bought the International
25 Talc operation, which is category -- I don't know,

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1 you guys produced the sales agreement -- the
2 purchase agreement. You've seen that; right? The
3 Vanderbilt purchase of IT?
4 A. No.
5 Q. You have not seen that?
6 A. I have not seen that.
7 Q. Do you know, does Vanderbilt still own the
8 Mine 3?
9 A. They still own the property, yes.
10 MR. RADCLIFFE: Objection, beyond the
11 scope.
12 BY MS. ABRAMS:
13 Q. And that's not functioning anymore?
14 A. That's correct.
15 MR. RADCLIFFE: Same objection.
16 BY MS. ABRAMS:
17 Q. Have you ever gone there?
18 MR. RADCLIFFE: Same objection.
19 THE WITNESS: Yeah. I visited the
20 property years and years ago.
21 BY MS. ABRAMS:
22 Q. When was that?
23 A. In the late '80s, '88.
24 MR. RADCLIFFE: Same objection.
25 BY MS. ABRAMS:

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1 Q. Why did you go there?
2 MR. RADCLIFFE: Same objection.
3 THE WITNESS: Out of curiosity.
4 BY MS. ABRAMS:
5 Q. What did you see?
6 MR. RADCLIFFE: Same objection.
7 THE WITNESS: Just the surface. This was
8 an underground mine and the underground workings
9 were closed, they were not accessible.
10 MR. RADCLIFFE: We've been going for more
11 than an hour. When you reach a convenient place,
12 I'd like to take a break.
13 MS. ABRAMS: Sure.
14 BY MS. ABRAMS:
15 Q. So you can't get into the mine?
16 MR. RADCLIFFE: Same objection.
17 THE WITNESS: No, you cannot.
18 BY MS. ABRAMS:
19 Q. Are there buildings on the property?
20 A. No.
21 MR. RADCLIFFE: Same objection.
22 BY MS. ABRAMS:
23 Q. So it's just a hole in the ground?
24 MR. RADCLIFFE: Same objection.
25 THE WITNESS: Yeah. There is not even a

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1 hole. It's hard to describe. You know, some
2 portions of it have -- may have been leveled so
3 that you couldn't gain access because you wouldn't
4 want people going there and injuring themselves,
5 climbing around on the rocks.
6 BY MS. ABRAMS:
7 Q. Is there a fence around it, for example?
8 A. There is I think a partial fence, but I
9 don't know exactly.
10 Q. Is it posted Private Property anywhere?
11 A. I don't remember seeing a sign, but
12 typically we would do that, so it probably is.
13 MR. RADCLIFFE: Same objection.
14 BY MS. ABRAMS:
15 Q. There's no park on it or something like
16 that?
17 A. Park?
18 Q. Public space that's --
19 A. Oh, no, no. It's isolated.
20 MR. RADCLIFFE: Same objection.
21 BY MS. ABRAMS:
22 Q. What about Mill 3, where was that?
23 MR. RADCLIFFE: Objection. We haven't
24 established there is a Mill 3.
25 MS. ABRAMS: I'm sorry, let me withdraw

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1 that question.
2 BY MS. ABRAMS:
3 Q. The old International Talc mill in
4 Talcville, was that right next to the mine?
5 MR. RADCLIFFE: Same objection.
6 THE WITNESS: It was -- it's a couple of
7 miles away in the direction of the town of
8 Gouverneur. I don't know the state highway, but
9 it's down the road.
10 BY MS. ABRAMS:
11 Q. Have you ever visited there?
12 A. Oh, yes.
13 MR. RADCLIFFE: Same objection.
14 BY MS. ABRAMS:
15 Q. Why have you visited there?
16 A. Well, it was a functioning, operating mill
17 until about six or seven years ago. It was
18 dedicated to processing wollastonite, not talc.
19 Q. So the old IT mill that used to process
20 Mouldene was used by Vanderbilt subsequent to
21 their purchase to process wollastonite; is that --
22 MR. RADCLIFFE: Objection.
23 THE WITNESS: Yes. At some point it was
24 converted just for that purpose.
25 MR. RADCLIFFE: Same basis.

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1 BY MS. ABRAMS:
2 Q. Do you have any idea when? Or what
3 decade?
4 A. Oh, it would have been the late '70s,
5 maybe '77, '78.
6 BY MS. ABRAMS:
7 Q. Could you spell "wollastonite"?
8 A. W-o-l-l-a-s-t-o-n-i-t-e. I think that's
9 right.
10 Q. And have you ever -- do they have storage
11 facilities of any kind on that site?
12 MR. RADCLIFFE: Objection. Beyond the
13 scope.
14 THE WITNESS: Storage facilities for
15 wollastonite?
16 BY MS. ABRAMS:
17 Q. Not for product but for documents and
18 things like that. Are there rooms? Are there
19 files? Are there boxes of papers, things like
20 that.
21 A. At that old International mill?
22 Q. Um-hum.
23 A. I don't think so.
24 Q. Do you know?
25 A. I don't know for certain.

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1 Q. Have you ever looked at that mill facility
2 to see if there are any old International Talc
3 documents?
4 A. No, I have not.
5 Q. Do you know if anyone else has?
6 A. I don't.
7 Q. Do you know if there are any International
8 Talc historical documents housed anywhere at
9 R.T. Vanderbilt?
10 A. I would not be -- in the course of my job,
11 that's not something that I would have knowledge
12 of.
13 Q. So is it fair to say that with respect to
14 International Talc documents regarding the
15 Mouldene that was mined out of that mine, that
16 other than the few documents you have in your
17 file, you don't have possession of any of the
18 International Talc files or documents that they
19 inherited from International Talc -- that
20 Vanderbilt inherited from International Talc; is
21 that fair?
22 MR. RADCLIFFE: Objection. Assumes facts
23 not in evidence. Argumentative.
24 THE WITNESS: What I have is only what I
25 brought.

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1 BY MS. ABRAMS:
2 Q. So you don't have any historical
3 International Talc files, other than the few pages
4 that you brought with you; correct?
5 A. That's correct.
6 Q. And you don't know one way or the other
7 whether any such files currently exist at
8 Vanderbilt; correct?
9 A. That's correct.
10 Q. With respect to studies of the presence of
11 asbestos in Mouldene talc, other than what you may
12 have in your file here, you have not searched
13 anywhere or asked anyone else at Vanderbilt if
14 they have such information to produce here today;
15 correct?
16 A. That would be correct.
17 Q. So if you were looking for studies on the
18 presence of asbestos in Mouldene talc, other than
19 in your office, for a product that has not been
20 produced, my understanding is, since 1976; is that
21 correct?
22 A. That's my understanding.
23 Q. Where at Vanderbilt, other than your
24 office, would you look for those documents?
25 A. Other than my office, there's only one

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1 other area, and that would be in Dr. Thompson's
2 mineral lab. It would be in his records.
3 Q. In his mineral lab? Where is Dr.
4 Thompson's mineral lab?
5 A. It's in Norwalk in Connecticut in the
6 research development center -- building.
7 Q. Is there a lab at the current -- strike
8 that.
9 The mill that used to be an IT mill that
10 now is a Vanderbilt mill processing
11 wollastonite -- did I say that right?
12 A. Yes, you did.
13 Q. Can we call that Mill 3?
14 A. We can, yes.
15 MR. RADCLIFFE: Objection.
16 BY MS. ABRAMS:
17 Q. That's Vanderbilt's Mill 3; right?
18 MR. RADCLIFFE: Well, no. There's no
19 evidence to that -- you're asking him if you can
20 call it Mill 3. That doesn't mean that that's the
21 name of it.
22 BY MS. ABRAMS:
23 Q. Okay. Is that called Mill 3 by
24 Vanderbilt?
25 MR. RADCLIFFE: Asked and answered.

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1 THE WITNESS: Yes. I mean, I asked that
2 we refer to it as International so we don't get
3 confused because these numbers have been -- can
4 get confusing.
5 BY MS. ABRAMS:
6 Q. That's fine. The old International Talc
7 mill, does that have a lab on the facility?
8 A. Not to my knowledge.
9 Q. Are there any other lab facilities
10 currently -- inhouse lab facilities that
11 Vanderbilt has other than Dr. Thompson's lab, to
12 your knowledge?
13 A. There is a quality laboratory that exists
14 as part of the Gouverneur talc operation.
15 Q. Where is that?
16 A. That's adjacent to Mill No. 1 which is,
17 you know, Vanderbilt's original mill, talc mill,
18 Belknap, New York.
19 Q. I'm going to ask you one more question,
20 then we're going to take a break.
21 The Arnold pit, that was also bought from
22 International Talc; correct?
23 A. That's correct.
24 Q. Couple more questions. Is there a mill
25 associated with the Arnold pit?

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1 A. That would be Mill No. 1.
2 Q. And is that -- that's where the lab is;
3 right?
4 A. Yes.
5 Q. Now, did you -- have you been to Mill
6 No. 1?
7 A. Oh, yes.
8 Q. With respect to the case that we're
9 talking about now, Mr. Weston's case, did you go
10 to that mill to see if you could find any
11 International Talc -- old International Talc
12 historical documents at Mill No. 1?
13 A. No.
14 Q. With respect to any studies of Mouldene,
15 in gathering any of that information, did you make
16 any effort to contact any people that used to work
17 at International Talc to look for that
18 information?
19 A. I'm sorry, what information?
20 Q. Looking for studies about Mouldene or any
21 other information about Mouldene.
22 A. No, I did not.
23 Q. Do you know currently today, as we sit
24 here today, any living ex-employees of
25 International Talc, whether or not they may have

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1 subsequently worked for Vanderbilt?
2 A. Yes. The most obvious would be actually
3 the plant manager currently of that mine and mill
4 in upstate New York. The name is Dana Putman,
5 P-u-t-m-a-n.
6 Q. And he's the plant manager of what?
7 A. Gouverneur Talc Company.
8 Q. Where is he located?
9 A. He's located in Gouverneur, New York.
10 Q. Is his office at Mill 1?
11 A. Yes, it is.
12 Q. Do you know what his job was at
13 International Talc?
14 A. No, I don't.
15 Q. How do you know he worked there?
16 A. Because he's told me a number of times and
17 it's in his personnel records.
18 Q. Have you talked to him with respect to
19 knowing that you were going to testify about a
20 Mouldene case -- about Mouldene talc?
21 A. No, I haven't.
22 Q. Any other people that you know of that may
23 have historically worked for International Talc
24 that now work for Vanderbilt or that are retired
25 or otherwise?

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1 A. Not off the top of my head, but those
2 records would be available.
3 Q. How would I find that out?
4 A. You would -- the way I would find it out
5 is I would call the plant and ask for a list of
6 current or prior employees that worked for
7 International Talc. And they would actually be
8 able to produce that.
9 Q. How would they do that?
10 A. When you apply for a job, you fill out an
11 application and you write in your prior work
12 history.
13 Q. So they would have to go through the
14 employees' records?
15 A. Personnel records.
16 Q. And they could do that?
17 MR. RADCLIFFE: Object. This is beyond
18 the scope.
19 THE WITNESS: It would be possible to do
20 that, yes.
21 MS. ABRAMS: Why don't we take a break.
22 THE VIDEOGRAPHER: This is the end of Tape
23 No. 1 in the deposition of John Kelse.
24 And we're going off the record at 11:55
25 a.m.

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1 (Lunch recess taken.)
2 THE VIDEOGRAPHER: This is the beginning
3 of Tape No. Two, August the 10th, 2009, the
4 deposition of John Kelse.
5 We're back on the record at 1:12 p.m.
6 BY MS. ABRAMS:
7 Q. Good afternoon, Mr. Kelse.
8 A. Good afternoon.
9 Q. I would like to ask you to look at
10 Exhibit 1, which is the notice of deposition. I'd
11 like to go through some of the categories with
12 you.
13 I want to start with No. 48, which is a
14 category that I've been told that your attorneys
15 are objecting to and have not produced any
16 information based on "it's argumentative,
17 irrelevant and not calculated to lead to the
18 discovery of admissible evidence," none of which
19 are proper objections for not producing documents.
20 So with that meet and confer, I'd like to ask
21 you --
22 MR. RADCLIFFE: I don't agree that that
23 was a meet and confer.
24 MS. ABRAMS: I'm not done with my
25 question.

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1 BY MS. ABRAMS:
2 Q. With that preface, I'd like to ask you
3 this question: Do you know or are you the person
4 that is most knowledgeable about whether or not
5 Vanderbilt has in its files any information on
6 insurance coverage available to International
7 Talc?
8 A. I would not be that person.
9 Q. Who would that person be?
10 A. I don't --
11 MR. RADCLIFFE: Object. Beyond the scope.
12 THE WITNESS: I don't know.
13 BY MS. ABRAMS:
14 Q. Who would have knowledge about
15 Vanderbilt's insurance coverage at Vanderbilt?
16 A. That's --
17 MR. RADCLIFFE: Object. Beyond the scope.
18 Don't speculate.
19 THE WITNESS: I know the insurance
20 coverage, the financial end of it is handled by
21 our financial folks. That would be that group.
22 I'm not even sure what the formal name would be,
23 but it would be the financial group.
24 BY MS. ABRAMS:
25 Q. Is there a person at that group that is in

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1 charge of Vanderbilt's insurance coverage for
2 lawsuits?
3 MR. RADCLIFFE: Same objection.
4 BY MS. ABRAMS:
5 Q. Let's make it more specific. For lawsuits
6 regarding asbestos or other product liability
7 matters.
8 MR. RADCLIFFE: Same objection.
9 THE WITNESS: I'm not sure who would
10 handle that.
11 BY MS. ABRAMS:
12 Q. What's your job title?
13 A. I'm director of occupational health
14 corporate and industrial hygienist.
15 Q. Do you have a risk management department?
16 A. Yes. I set it up.
17 Q. Does risk management have to do with
18 minimizing or controlling or otherwise overseeing
19 the lawsuits that Vanderbilt has with respect to
20 either Workers' Compensation or third party?
21 MR. RADCLIFFE: Object --
22 MR. DAVIS: Is anybody talking? I
23 literally can't hear a thing.
24 MS. MCLEOD: I can't hear.
25 MS. ABRAMS: Read the question back.

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1 MR. DAVIS: This happened in a deposition
2 about a week and a half ago and it was -- turned
3 out that the phone was no good. We swapped out
4 the phone and it sounded clear as a bell.
5 MS. ABRAMS: You know, I'm really sorry
6 about this, but the deposition was noticed for our
7 office, and I'm sorry if the phone is not working,
8 but we're in the middle of the deposition.
9 You're welcome to come down here.
10 We can try to swap the phone at a break;
11 okay?
12 MR. DAVIS: Okay, great. Thanks.
13 MS. MCLEOD: It's really choppy.
14 MS. ABRAMS: I'm really sorry but we can't
15 really help that. That's the phone we have.
16 That's the phone line. I'm sure it's the phone
17 line that's the issue which is what the issue was
18 last time.
19 MS. MCLEOD: Will you let us know when
20 it's time to take a break because I might just
21 have to run down there then.
22 MS. ABRAMS: Sure.
23 MS. MCLEOD: Thank you.
24 MS. ABRAMS: Okay. And speak up if you
25 can't hear us and we'll keep trying.

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1 MR. DAVIS: Thank you.
2 MS. MCLEOD: Thank you. If you get back,
3 we can try to call back.
4 MS. ABRAMS: Now, would you read the
5 question back, please.
6 (Record read.)
7 MR. RADCLIFFE: Objection. Beyond the
8 scope.
9 THE WITNESS: I'm a little confused about
10 how to answer it. We would participate in suits
11 to the extent that we would have information that
12 would be pertinent to it.
13 But it's not the function of anyone in
14 risk management to oversee that activity. We
15 would contribute information when asked.
16 BY MS. ABRAMS:
17 Q. You worked for the Hartford Insurance
18 Company; correct?
19 A. That's correct.
20 Q. And when you worked for the Hartford
21 Insurance Company, you did that at some -- on some
22 occasions in your capacity as a Hartford person,
23 you coordinated certain things with the Vanderbilt
24 Company; correct?
25 MR. RADCLIFFE: Object. Vague and

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1 ambiguous.
2 THE WITNESS: I coordinated industrial
3 hygiene work, which was air monitoring
4 information, things of that nature.
5 BY MS. ABRAMS:
6 Q. During your entire career with Hartford,
7 which I believe was 1980 to '85, or was it longer
8 than that? Strike that.
9 From 1980 to '85, I believe you had some
10 involvement with Vanderbilt on occasion; is that
11 right?
12 A. That's correct.
13 Q. And during that time, did any of that
14 involvement ever involve Workers' Comp or third
15 party lawsuits?
16 A. No, it did not.
17 Q. Who did you deal with at Vanderbilt in
18 your work when you worked at the Hartford?
19 A. I dealt with a fellow by the name of Vern
20 Streitmater, I think he spelled it
21 S-t-r-e-i-t-m-a-t-e-r.
22 Q. What was his job?
23 A. He oversaw the production facilities, vice
24 president of operations. So he oversaw the
25 chemical plants and mining facilities.

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1 Q. Who is the -- is there a vice president of
2 risk management at Vanderbilt?
3 A. No, there is not.
4 Q. Who is in the risk management department?
5 A. There is a manager for environmental,
6 corporate manager of environmental who oversees
7 all the environmental issues for all the plants
8 for the corporation.
9 Q. Who is that?
10 A. That's Donna Duessel, D-u-e-s-s-e-l.
11 Q. Do you, on occasion, have interactions
12 with Vanderbilt's insurers?
13 A. On occasion.
14 Q. Which insurers do you interact with?
15 A. I've interacted with Zurich. I've had
16 some interaction with Hartford. I've had
17 interaction with CNA. There's a state fund. I
18 forget what the name of it is, exact name, but
19 it's a state fund in New York state.
20 Q. Now, do you know if any of those entities
21 or any other entities carry insurance to cover
22 International Talc for lawsuits?
23 MR. RADCLIFFE: Objection. Beyond the
24 scope.
25 THE WITNESS: I have no idea.

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1 BY MS. ABRAMS:
2 Q. Do you know if Vanderbilt's insurance
3 covers International Talc lawsuits?
4 MR. RADCLIFFE: Objection. Beyond the
5 scope.
6 THE WITNESS: I have no idea.
7 BY MS. ABRAMS:
8 Q. And you don't know who I would talk to, to
9 find out that information at Vanderbilt?
10 A. I don't have any specific name.
11 Q. Do you have a general place I would look?
12 MR. RADCLIFFE: Objection. Asked and
13 answered.
14 THE WITNESS: Probably the financial
15 group.
16 BY MS. ABRAMS:
17 Q. Is there a person at the financial group
18 who you would direct me to?
19 MR. RADCLIFFE: Objection. Beyond the
20 scope.
21 THE WITNESS: Jim MacDonald.
22 BY MS. ABRAMS:
23 Q. What is his position?
24 A. I'm not sure what his actual title is.
25 He's in the financial group and he handles

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1 insurance policies.
2 Q. And it's fair to say that you did not talk
3 to Mr. MacDonald or otherwise search for whether
4 or not Vanderbilt has insurance coverage available
5 to International Talc or whether anybody else has
6 insurance coverage available to International
7 Talc; correct?
8 A. That's correct.
9 MR. RADCLIFFE: Objection. Beyond the
10 scope.
11 MR. DAVIS: The static is really
12 interfering with the deposition.
13 MS. ABRAMS: We're going to hang up the
14 phone and try calling back. Unfortunately, the
15 static is interfering with the deposition. Okay?
16 MR. DAVIS: Okay.
17 MS. MCLEOD: Okay.
18 MS. ABRAMS: We can probably go off the
19 record.
20 THE VIDEOGRAPHER: We're going off the
21 record at 1:23 p.m.
22 (Recess taken.)
23 THE VIDEOGRAPHER: We're back on the
24 record, and the present time is now 1:29 p.m.
25 BY MS. ABRAMS:

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1 Q. We just got back from a phone break, Mr.
2 Kelse. I want to continue on with Category No.
3 49, if you could look at that.
4 A. There are two sections. Is that the
5 second section?
6 Q. Second section, No. 49.
7 A. Okay.
8 Q. Did you, in your capacity as the custodian
9 of records, search for any Workers' Compensation
10 claims filed against the International Talc
11 Company?
12 MR. RADCLIFFE: He's not designated as
13 custodian of records for 49. He's designated as
14 custodian of records for those categories that
15 match up with his PMQ.
16 MS. ABRAMS: Who's designated in that
17 category?
18 MR. RADCLIFFE: We are objecting to that
19 category.
20 MS. ABRAMS: Understood.
21 BY MS. ABRAMS:
22 Q. So you can answer the question.
23 MR. RADCLIFFE: It's beyond the scope of
24 why he's here. You wanted to take the COR PMQ --
25 MS. ABRAMS: Are you instructing him not

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1 to answer that question? I'm asking if he's
2 searched for the records. That's a "yes" or "no"
3 question. So it's up to you. You can tell him
4 not to answer.
5 MR. RADCLIFFE: Go ahead and answer.
6 THE WITNESS: No.
7 BY MS. ABRAMS:
8 Q. Do you know whether Vanderbilt maintains
9 any Workers' Compensation records that were filed
10 against the International Talc Company?
11 A. I don't know why they would. But I don't
12 know one way or another.
13 BY MS. ABRAMS:
14 Q. And is there a person at R.T. Vanderbilt
15 who maintains files, the Workers' Compensation
16 files? I know you mentioned that you knew about a
17 couple of lung cancer cases because of the
18 Workers' Compensation files. So do you know where
19 you found those or who had custody of those?
20 MR. RADCLIFFE: Objection. Compound.
21 Beyond the scope.
22 THE WITNESS: The compensation records
23 typically go to the plant, the initial...
24 BY MS. ABRAMS:
25 Q. Would Donna Duessel have custody of those

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1 files?
2 MR. RADCLIFFE: Objection. Beyond the
3 scope.
4 THE WITNESS: No.
5 BY MS. ABRAMS:
6 Q. Who at the plant would have custody of
7 those files?
8 A. It would be their personnel, human
9 resource.
10 Q. Who is that at the plant?
11 A. Dave Dean, D-e-a-n.
12 Q. You were designated as the person who had
13 knowledge of studies of Mouldene talc.
14 Do you know, in the studies of Mouldene
15 talc, whether or not those studies tracked
16 International Talc workers who no longer work for
17 R.T. Vanderbilt?
18 A. The studies I referred to -- or the study
19 is just singular report I had in my file, and it's
20 a mineralogy, an analytical report, not a health
21 report.
22 Q. What report is that?
23 A. That's the report dated -- I'll get it in
24 a second -- it would be Dr. Wylie's report dated
25 July 28, 1989. It's the only formal report that I

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1 have.
2 Q. Do you know whether there's ever been a
3 study, an epidemiological study about the health
4 effects of Mouldene talc?
5 A. I'm not aware of any.
6 Q. Do you know whether there's ever been any
7 kind of cohort study of the health of former
8 International Talc workers?
9 A. Cohort study of former -- specific to
10 that, no, I'm not aware of that.
11 Q. Are you the person who would be most
12 knowledgeable about whether or not there had been
13 studies of former International Talc workers as to
14 their current health status and mortality status?
15 MR. RADCLIFFE: Objection. Beyond the
16 scope. Calls for speculation.
17 THE WITNESS: I have no data on that.
18 BY MS. ABRAMS:
19 Q. That wasn't my question. My question was,
20 at Vanderbilt, R.T. Vanderbilt Corporation, is
21 there anyone else besides you that would be more
22 knowledgeable about whether or not there had been
23 studies of International Talc workers and their
24 current health or mortality studies?
25 MR. RADCLIFFE: Objection. Beyond the

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1 scope. Calls for speculation.
2 THE WITNESS: I'm aware of no such
3 studies, but I don't know what anyone else knows.
4 I'm not aware of any.
5 BY MS. ABRAMS:
6 Q. Are there medical people who might have
7 that information that either are employees of
8 Vanderbilt or their consultants?
9 MR. RADCLIFFE: Objection. Beyond the
10 scope. Calls for speculation.
11 THE WITNESS: I'm not aware of any
12 specific to International Talc, no.
13 BY MS. ABRAMS:
14 Q. And other than Dr. Wylie's study that
15 you've produced here today, do you know any other
16 studies of the mineralogical composition of any
17 Mouldene talc?
18 A. That's the only formal report I have.
19 Q. Well, let's turn to that. That comes out
20 of your Mouldene folder; right?
21 A. Yes.
22 MR. RADCLIFFE: Can we have -- okay,
23 you've given the witnesses his folders back.
24 Thank you.
25 MS. ABRAMS: Do you need a copy?

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1 MR. RADCLIFFE: I assume you're going to
2 mark a copy for the record?
3 MS. ABRAMS: I can do that.
4 Okay. Mark this as Exhibit 2, please.
5 (Plaintiff's Exhibit No. 2 marked for
6 identification.)
7 BY MS. ABRAMS:
8 Q. Now, can you point out to me in this
9 document, which is -- I've marked as Exhibit 2,
10 and which is Dr. Wylie's paper entitled -- she is
11 a doctor; right?
12 A. Yes.
13 Q. Is she a Ph.D.?
14 A. Oh, yeah.
15 Q. She's not a medical doctor?
16 A. No.
17 Q. "Mineralogical Features Associated With
18 Cytotoxic and Proliferative Effects of Fibrous
19 Talc and Asbestos on Rodent Tracheal Epithelial
20 and Pleural Mesothelial Cells."
21 Is that the paper you're speaking of?
22 A. No. I'm speaking of her analytical report
23 as the composition of Mouldene, the mineral
24 composition of Mouldene.
25 Q. Would you mind turning to Exhibit 2 first,

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1 the paper that you've included in your Mouldene
2 folder.
3 A. Right. Um-hum.
4 Q. Could you point out to me in this paper
5 where you believe this paper applies to the issue
6 of Mouldene?
7 A. Yes. The reason it was in this folder is
8 because it speaks to a study that was done with a
9 concentrate of talc fiber.
10 And talc fiber, as I understand it from
11 her analytical report and from Dr. Thompson, is
12 more prevalently found in Mouldene than it is in
13 the talc that we typically mine from our
14 underground mine and from the Arnold pit. It's
15 easier to see. There is more of it. And it's one
16 of the reasons why that talc grade was called a
17 fiber, high fiber talc.
18 So to the extent that this cell study
19 focused on that component. It has an application
20 and the only risk-linked application that I have
21 to Mouldene.
22 But it's not a direct testing of Mouldene.
23 Q. Well,
24 what did she test in here?
25 A. A high concentrate, a high fiber

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1 concentrate.
2 Q. Where did she get it from?
3 A. R.T. Vanderbilt produced it.
4 Q. How did they produce it?
5 A. They took a high-fiber grade of material,
6 and I'm not sure if -- I'm not sure what the
7 source was, probably Talcville, and then they
8 floated out the talc fiber to keep concentrating
9 it so that they would do just that, have a
10 concentrate of talc fiber.
11 Q. Well, you have no idea where they got that
12 fiber from; correct?
13 MR. RADCLIFFE: Object to the form.
14 Misstates previous testimony.
15 THE WITNESS: That's -- I don't know
16 exactly where it came from. I have an
17 understanding, but I don't want to speculate.
18 BY MS. ABRAMS:
19 Q. Well, did you talk to anybody to find out
20 where it was from?
21 A. Well, I have an understanding. My
22 understanding, and from discussions that I had
23 with the individual who helped produce the sample,
24 was that it was a high fiber material that came
25 from Talcville, so it would have come from the

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1 mine that Mouldene was mined from, is another
2 reason why I think that this is a link to
3 Mouldene.
4 Q. Who is the individual?
5 A. That was Conrad Reiger, R-e-g --
6 R-e-i-g-e-r.
7 Q. Who does he work for?
8 A. He works for R.T. Vanderbilt. He's a
9 ceramics engineer.
10 Q. We'll put you on notice that we want his
11 deposition on the 26th.
12 When did you talk to Mr. Reiger about
13 this?
14 A. I don't remember the specific date.
15 Q. Well, was it recently?
16 A. No.
17 Q. So you got the impression that they got
18 that sample for Dr. Wylie's study that was
19 published in 1997 from Mine No. 3?
20 A. That's my understanding.
21 Q. Was Mine No. 3 open?
22 A. Well, again, mine No. 3 being the
23 Talcville?
24 Q. Well, Mine No. 3 -- my understanding of
25 Mine No. 3 is that it was the International Talc

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1 Mine No. 3 where they mined Mouldene; correct?
2 A. Yes.
3 Q. The one you just told us was completely
4 closed down and was not in operation; correct?
5 A. Correct. That's right.
6 Q. So how did he get the material from Mine
7 No. 3 -- or what did he tell you about getting the
8 material from Mine No. 3 to give to Ann Wylie?
9 A. I believe it was from a material that was
10 on the surface. You know, you can find material.
11 If you find a material that looks particularly
12 fibrous, then that's -- that's what he selected.
13 Q. So he picked it up off the ground?
14 A. Yes, in effect.
15 Q. It wasn't from the underground mine in a
16 vein in the underground mine; correct?
17 A. That's correct.
18 Q. Why is it that he told you that he went
19 and got a sample from somewhere on the ground
20 around Mine No. 3 for this particular study?
21 MR. RADCLIFFE: Objection. Calls for
22 speculation.
23 THE WITNESS: Again, this goes back a
24 number of years. I guess -- I would have to look
25 at my records, if I have something written down,

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1 as to why, you know, I was asking him, and I would
2 just be curious to know where the sample came
3 from, that the concentrate was produced from.
4 We knew what it was. We knew what the
5 material was because it was characterized. That's
6 why Dr. Wylie was in the study.
7 But its source was something that I would
8 have a question about or that I would just
9 generally want to know.
10 BY MS. ABRAMS:
11 Q. So you keep notes of conversations on
12 things like those kinds of discussions?
13 A. No. I wouldn't do that.
14 Q. I believe you just responded, you'd have
15 to look back at your records and see if you had
16 notes?
17 A. Yeah. Sometimes -- not notes on
18 conversations, but if there may have been a case
19 where this question was asked before as the origin
20 of the sample, I know that that's the case in a
21 couple of the animal studies, and we had to go
22 back and research the documentation, whatever
23 existed, that spoke to the origin of the samples
24 in those animal studies.
25 I don't think that came up on this study.

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1 But if it did, then there may have been a note or
2 two or a memo memorializing the origin of that --
3 that sample. I don't think there was. I think it
4 was just my asking in this case.
5 Q. So is it fair to say, Mr. Kelse, that
6 what -- the material -- that you are not the
7 person most knowledgeable about what material is
8 actually put into this study for Dr. Wylie?
9 MR. RADCLIFFE: Objection. Calls for
10 speculation.
11 THE WITNESS: No, I'm not. Based on the
12 characterization of the material, which is
13 reflected in the report itself, beyond that and a
14 report that it came from Talcville and it was from
15 the surface rock that seemed to be of a high fiber
16 content, that pretty much exhausts what I know
17 about its origin.
18 BY MS. ABRAMS:
19 Q. My question is, you're not the person that
20 went and got the material; correct?
21 A. No.
22 Q. Does it say in here that it's from
23 Talcville in the article?
24 A. I don't know. I'd have to look -- look
25 through. I -- I don't think it does.

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1 Q. Does it say that it was picked up off the
2 ground in -- in Talcville somewhere?
3 A. I seriously doubt that, but I would have
4 to read through it.
5 Q. I take it that your understanding of --
6 strike that.
7 Let me look at this for a minute.
8 MR. RADCLIFFE: I think on page 2 of the
9 article, under "Sources of Mineral Samples," it
10 talks about the source -- it talks about where it
11 came from.
12 BY MS. ABRAMS:
13 Q. Well, under "Sources of Mineral Samples,"
14 it says it came from the Gouverneur talc district.
15 That could mean any Vanderbilt mine; correct?
16 A. It could be.
17 Q. Yeah. So you're -- I take it you're --
18 you believe, based on this article, that Ann Wylie
19 is saying that that fibrous talc she looked at
20 didn't have any asbestos in it; is that right?
21 MR. RADCLIFFE: Object to the form.
22 Misstates prior testimony.
23 THE WITNESS: Well, it speaks for itself.
24 She doesn't say that it contains asbestos. There
25 is no asbestos here. It's talc fiber and -- and

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1 transitional fiber.
2 BY MS. ABRAMS:
3 Q. In your opinion, transitional fiber is not
4 asbestos fiber; correct?
5 A. That's what the mineralogists tell me,
6 yes.
7 Q. But under the Stanton hypothesis as you
8 stated it before, that would be an incorrect
9 statement; correct?
10 A. I don't think Stanton defined asbestos
11 that way.
12 Q. Isn't it correct that some transitional
13 fibers, as you define them, fit into the Stanton
14 hypothesis?
15 A. They meet -- they meet the critical
16 dimensions, yes.
17 Q. But Dr. Wylie doesn't agree with that,
18 does she?
19 A. That they meet the critical dimensions?
20 Q. That those are asbestos-form materials?
21 A. She doesn't agree that --
22 MR. RADCLIFFE: Object to the form.
23 THE WITNESS: -- that they're not
24 asbestos.
25 MR. RADCLIFFE: Objection. Vague and

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1 ambiguous. Misstates prior testimony.
2 BY MS. ABRAMS:
3 Q. She doesn't agree they are or aren't
4 asbestos?
5 A. She has said, that's why I brought her
6 summary, she has never seen asbestos in all the
7 years that she's looked at this material.
8 But she certainly has -- has looked at
9 talc fiber under that category, transitional as
10 well. She has never referred to them as asbestos
11 and she says essentially that in her summary.
12 Q. So my question is this: Under the Stanton
13 hypothesis, some of the fibers that Dr. Wylie
14 identifies as transitional fibers, Dr. Stanton fit
15 into the category of asbestos-form or fibers under
16 the Stanton hypothesis; isn't that correct?
17 MR. RADCLIFFE: Objection. Vague and
18 ambiguous. Misstates prior testimony.
19 MS. ABRAMS: It's just a "yes" or "no"
20 question.
21 THE WITNESS: They fit the dimension.
22 BY MS. ABRAMS:
23 Q. Thank you.
24 Is there -- let's continue to go through
25 your Mouldene file while we have it here, if you

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1 don't mind. If I may just look in your file.
2 We've talked about Wylie.
3 The Wylie article was 1997. You have a
4 letter from Ann Wylie in 1989. So why don't we
5 turn to that. That predates her article; correct?
6 A. That's correct.
7 Q. And it's correct that R.T. Vanderbilt
8 has --
9 MR. RADCLIFFE: Are we going to mark the
10 letter?
11 MS. ABRAMS: Pardon me?
12 MR. RADCLIFFE: Are we going to mark the
13 letter?
14 MS. ABRAMS: Eventually.
15 BY MS. ABRAMS:
16 Q. It's correct that R.T. Vanderbilt has
17 consulted with Dr. Wylie at least on occasion;
18 correct?
19 A. That's correct.
20 Q. And I know you've been asked this before,
21 so maybe you've looked it up, but do you know how
22 much R.T. Vanderbilt has paid Dr. Wylie over the
23 years to consult with them?
24 MR. RADCLIFFE: Objection. Vague and
25 ambiguous. Compound. Argumentative.

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1 THE WITNESS: I don't know. I wouldn't
2 know that.
3 BY MS. ABRAMS:
4 Q. It's not something that you were curious
5 to find out after being asked in deposition
6 several times?
7 A. No. I care more about her science than
8 money.
9 BY MS. ABRAMS:
10 Q. Do you know when the first time was that
11 R.T. Vanderbilt consulted with Dr. Wylie?
12 A. I don't know the exact date. I know it --
13 there was contact, I believe, as early as the
14 '70s. When exactly, I don't know.
15 Q. So that was before your time?
16 A. It was before my time.
17 Q. Have you ever personally talked to Dr.
18 Wylie?
19 A. Yes.
20 Q. On how many occasions?
21 A. Oh, at least half a dozen.
22 Q. Had -- did you speak with Dr. Wylie before
23 you started your employment at Vanderbilt?
24 A. No, I did not.
25 Q. Is it fair to say that before you became

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1 employed by Vanderbilt, it was your understanding
2 that the fibers at the Vanderbilt facility were
3 asbestos fibers and you were concerned about that?
4 A. I understood that there was a controversy.
5 And when I worked for Hartford, we actually
6 discussed it as to how we would approach this
7 controversy and concluded that we would not
8 basically get involved, that it was beyond the
9 expertise of the insurance company, certainly
10 beyond my expertise.
11 And this was an area that we were not --
12 we were not going to address it. So when I took
13 air samples, I didn't take air samples for
14 asbestos.
15 Q. Well, I'd strike that answer as
16 nonresponsive, but I'm going to leave that in and
17 ask you the question again.
18 MS. ABRAMS: Would you read the question
19 back.
20 (Record read.)
21 BY MS. ABRAMS:
22 Q. And I'm asking you before you had contact
23 with Vanderbilt to hear about a controversy.
24 A. Oh, before? No. No, I was not aware of
25 it prior to my working with Vanderbilt as a

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1 consultant in industrial hygiene.
2 Q. Well, did the Hartford, your employer,
3 send you there to figure out whether there was
4 asbestos there or not?
5 A. No, not at all.
6 Q. So the Hartford had no interest in the
7 fact that there may be asbestos in the talc
8 material at Vanderbilt?
9 MR. RADCLIFFE: Objection. Argumentative.
10 THE WITNESS: That -- I don't recall that
11 being an issue for them. I was doing air sampling
12 at all their facilities. The talc mine was just
13 one of many facilities that they had.
14 BY MS. ABRAMS:
15 Q. Do you know whether the Hartford was their
16 Workers' Compensation carrier?
17 A. It was for those years.
18 MR. RADCLIFFE: Objection. Beyond the
19 scope.
20 BY MS. ABRAMS:
21 Q. For which years?
22 A. From -- well, certainly from '80 through
23 the end of '84 or early '85, and it may have
24 predated '80 into the late '70s. It was in that
25 timeframe from late '70s to mid '80s.

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1 MR. RADCLIFFE: Same objection.
2 BY MS. ABRAMS:
3 Q. And do you know who their insurance
4 carrier -- their comp carrier was before that?
5 A. I don't.
6 MR. RADCLIFFE: Objection. Beyond the
7 scope.
8 BY MS. ABRAMS:
9 Q. Do you know if the Hartford was an insurer
10 for International Talc?
11 MR. RADCLIFFE: Same objection.
12 THE WITNESS: I don't know.
13 BY MS. ABRAMS:
14 Q. Do you know if the Hartford was an insurer
15 for Loomis?
16 MR. RADCLIFFE: Same objection.
17 THE WITNESS: I have no idea.
18 MR. RADCLIFFE: Mr. Kelse, if you could
19 just wait a heartbeat if I have an objection, so
20 we don't talk over each other.
21 THE WITNESS: Oh, okay.
22 BY MS. ABRAMS:
23 Q. So let's look at this letter, which I'm
24 going to mark, the letter from Ann Wylie to Dr.
25 Thompson in 1989.

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1 And, actually, before I do that, let me
2 just ask counsel, these documents that you've
3 produced which are Bates-stamped, we can get the
4 Bates stamp numbers for the large amount of
5 documents.
6 Will you stipulate to the authenticity of
7 these documents? They were produced by you. Or
8 should we go through the exercise of --
9 MR. RADCLIFFE: I won't object on
10 authenticity grounds.
11 MS. ABRAMS: Was that a stipulation? I
12 need a stipulation on the record.
13 MR. RADCLIFFE: I will stipulate with you
14 that I will not object on authenticity grounds.
15 MS. ABRAMS: Okay. We'll put the Bates
16 stamp numbers on the record so we have clarity on
17 that.
18 MR. RADCLIFFE: I believe it's Bates stamp
19 Nos. 1 through -- I don't have the last number.
20 MS. ABRAMS: We'll get it.
21 MR. RUIZ: Does 1,361 sound correct?
22 MS. ABRAMS: We'll -- we'll say that.
23 Okay.
24 MR. RADCLIFFE: Yes. Actually, that is --
25 I believe that is correct. It's WES leading

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1 zeroes 1 through WES-1361.
2 MS. ABRAMS: Thank you.
3 BY MS. ABRAMS:
4 Q. The letter that you have in front of you
5 which we're about to mark as Exhibit 2 --
6 MR. RADCLIFFE: It's going to be Exhibit
7 3, and --
8 MS. ABRAMS: Exhibit 3.
9 MR. RADCLIFFE: -- you need to give the
10 court reporter just a second.
11 (Plaintiff's Exhibit No. 3 marked for
12 identification.)
13 BY MS. ABRAMS:
14 Q. Did you -- strike that.
15 With respect to the article -- the Wylie
16 article we just looked at, did you read that
17 article at or around the time that it was
18 published, if you recall?
19 A. Yes.
20 Q. This 1989 letter from Wylie to Thompson
21 which says, "Dear Dr. Thompson," Thompson is
22 crossed out and it says "Slim."
23 Is Slim Dr. Thompson's name?
24 A. Nickname, yes.
25 Q. So it says, "Dear Slim."

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1 Did you read this July 28, 1989, letter at
2 or around the time it was created as well?
3 A. I don't recall whether I did or didn't.
4 Q. Do you remember when the first time you
5 saw this letter was?
6 A. No, I don't. Certainly when I was asked
7 to look through what documents I had on Mouldene,
8 it was in that file which was a couple weeks ago.
9 It's my routine to look at analytical reports, but
10 I can't say for certain that I looked at it on
11 July 28th or 29th or 30th. But I, you know,
12 obviously saw it.
13 Q. So this, in your opinion or
14 representation, it's -- you consider this a
15 technical report?
16 A. Yeah, it's an analytical report.
17 Q. I'm sorry, analytical report. And what
18 is -- you've included this in your Mouldene file.
19 What do you believe this says about Mouldene?
20 A. Well, Dr. Wylie does not find asbestos in
21 Mouldene.
22 Q. Does she say that specifically? Do you
23 see anything in there that says, I don't find
24 asbestos in Mouldene?
25 A. Well, to be asbestos, it has to be one of

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1 six minerals and it has to be in the asbestiform
2 habit.
3 None of those appear on this paper
4 anywhere. Consequently, she does not report
5 asbestos.
6 Q. Does Ann Wylie in this letter say anywhere
7 that Mouldene talc does not contain asbestos, in
8 those words?
9 A. In those words, no.
10 Q. If you would follow along with me, she
11 says in her second paragraph -- and she's talking
12 about Mouldene S-158.
13 Do you know what that is?
14 A. I do not.
15 Q. Did you ever ask what that was?
16 A. No, I haven't.
17 Q. Do you know where that was from?
18 A. Well, if it says Mouldene, it would be
19 from the Talcville mine.
20 Q. But you don't know where that particular
21 sample Mouldene S-158 came from; correct?
22 A. No, I would not.
23 Q. And do you know whether this was the first
24 test of that sample?
25 A. This is the only document or record I

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1 have.
2 Q. You don't have anything in your files of
3 any Mouldene testing before July 28, 1989,
4 correct, other than the Wylie article?
5 A. There are references in internal memoranda
6 which are included here; one was written by
7 Dr. Thompson to Paul Vanderbilt. And the second
8 one I think was to a Gus Fiederlein which
9 indicates that Dr. Thompson did some analysis of
10 International Talc products.
11 But other than the reference in these
12 memorandum, I don't have any analytical reports of
13 this nature.
14 Q. And what's the date on the memorandum?
15 A. There are two. One is dated September 23,
16 1987.
17 And now I need to find the other one,
18 which I thought was in here someplace. I think it
19 would be one -- the name on it should be, I
20 believe, Gus Fiederlein.
21 Q. Pardon me?
22 A. I checked this, this morning. I thought
23 that it was in here. Maybe it got lost in the
24 shuffle.
25 MR. RADCLIFFE: Why don't you take a

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1 moment and look through the other folders to make
2 sure -- certain that it didn't get misplaced.
3 THE WITNESS: Pushed in another one?
4 Do you have the copy that you made by any
5 chance? Do you see a memo? Does it say Gus
6 Fiederlein on it?
7 MR. RUIZ: No.
8 THE WITNESS: That's the one to Paul
9 Vanderbilt, isn't it?
10 MR. RUIZ: Yes.
11 MS. ABRAMS: So we have a disappearing act
12 of a memo that says --
13 BY MS. ABRAMS:
14 Q. Do you have a recollection of
15 approximately when that was generated?
16 A. No, I don't. Let me look at one of these
17 other files. Maybe it got shuffled. I know that
18 I was asked to produce what I had on Mouldene, and
19 this is what I had produced to the attorneys. And
20 I'm sure that was in that pile, so I suspect it
21 was probably produced for you.
22 Q. And can you be more specific about what it
23 is we're looking for, so we can maybe get it?
24 A. Yes, it's a single page memorandum,
25 internal Vanderbilt memorandum from Dr. Thompson

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1 to G. L. Feederline. And I don't know the exact
2 date.
3 MS. ABRAMS: If you look in the black
4 binder, you might find it in there.
5 THE WITNESS: Sorry about that.
6 BY MS. ABRAMS:
7 Q. Are we talking about, if you know, the
8 1970s, 1980s or 1990s?
9 A. I don't think it was the 1990s. It was
10 the '70s or '80s.
11 Q. Who is the G. L. Feederline?
12 A. He was the executive vice president in
13 the -- he's the chief financial officer, I
14 believe, in the 1970s and then the president at
15 one point in the late '80s, early '90s. So he's
16 sort of second in command.
17 Q. And what was the memo about?
18 A. As I recall, it was very similar to the
19 letter to Paul Vanderbilt, although I think the
20 letter -- the memo to Paul Vanderbilt is more
21 detailed.
22 My recollection was Dr. Thompson
23 explaining how he had some difficulty analyzing
24 the five grades of talc from International Talc
25 from the Talcville mine.

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1 He was asked to look at those materials
2 when the company purchased International Talc, and
3 he had some difficulty with the analysis. It was
4 a complex analytical issue for him.
5 And he was explaining that very much the
6 same way as he did in his memo to Paul Vanderbilt.
7 Q. May I see the memo to Paul Vanderbilt?
8 A. That's it.
9 Q. And that's the 1987 memo. Okay.
10 Do you see it anywhere?
11 MR. RUIZ: No.
12 MS. ABRAMS: We ask that you find it and
13 produce it.
14 MR. RADCLIFFE: Well, the witness, I
15 think, has said that he saw it this morning and
16 believes he brought it with him. If it got
17 misplaced, it got misplaced. We'll look for it
18 and we'll produce it.
19 MS. ABRAMS: Well, we can look back and
20 see what we talked about in the Mouldene file.
21 MR. RADCLIFFE: I'm not suggesting you
22 misplaced it.
23 MS. ABRAMS: We may have. It may have
24 been eaten by my copy machine, who knows.
25 MR. RADCLIFFE: It could have been

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1 misplaced in the bathroom. I don't know.
2 BY MS. ABRAMS:
3 Q. You have a copy of it at your office;
4 correct?
5 A. Yes.
6 Q. So if we don't find it here today, will
7 you give it to your attorneys and have them
8 produce it for us?
9 A. Certainly.
10 Q. Thank you.
11 Okay. Let's go back to this 1989 Wylie
12 letter to Slim Thompson.
13 So what are these little squiggly figures
14 on here?
15 A. Alpha beta. It refers to refractive
16 index.
17 Q. So is the little circle on the bottom
18 figure, is that alpha, or is that something else
19 in the second sentence in -- the third sentence in
20 the second paragraph? "Parallel to elongation."
21 What is that?
22 A. Well, you know, I think on this I'm going
23 to let Dr. Thompson, who is a mineral scientist,
24 answer you rather than have me bungle my way
25 through an explanation of -- of refractive

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1 indices.
2 There's a -- it's a tool that Dr. Wylie
3 uses that basically identifies the mineral type --
4 Q. Well, this is her --
5 A. -- by refractive index and the different
6 techniques that are used for light optical
7 analysis.
8 And it gets pretty technical, and I would
9 prefer that Dr. Thompson describe that to you as
10 to what that's about.
11 Q. Sure. So I -- just want you to look at
12 paragraph 1 under "fibrous talc" and point out to
13 me where in that paragraph you believe she says
14 there's no asbestos.
15 A. Well, what she's -- I -- what she's doing
16 here is she's identifying the mineral type with
17 these refractive indexes. And -- and then she's
18 making another -- and that tells you the mineral
19 type.
20 Then there's another aspect to this, which
21 is the crystal habit, or the way the crystals
22 were -- either grew or were formed by -- by
23 breakage.
24 And when she says "fiber displays," the
25 classical characteristics of asbestos, that means

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1 that some of the fibers that she saw in the sample
2 were -- showed characteristics typical of
3 asbestos.
4 That doesn't make them asbestos. It makes
5 them -- the term that's used is "asbestiform." It
6 means, literally, like asbestos, looks like
7 asbestos.
8 But it's not. It doesn't make it
9 asbestos. I know this is very confusing. I had a
10 hard time with that myself.
11 Q. Okay. So --
12 A. But it speaks to a -- the way it looks.
13 Q. It -- she looked under her microscope, or
14 whatever she did, and she reported back about the
15 fibrous talc and what she said under the fibrous
16 talc is, There is asbestiform fibrous talc in this
17 material; isn't that correct?
18 A. Um-hum. She said --
19 Q. Is that a "yes"?
20 A. Well, no. She said that that --
21 Q. Um-hum.
22 A. -- well -- In general -- she says, In
23 general, the more -- the more the fibers display
24 the characteristics of asbestos -- fiber bundles
25 with these values represent in general, the more

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1 of the fibers display the characteristics.
2 So she's not saying they all do. She's
3 saying some displayed characteristics that are
4 similar to asbestos.
5 Q. Okay. Mr. Kelse, in July 28th of 1989,
6 Dr. Ann Wylie wrote a letter to Dr. Thompson,
7 nicknamed Slim --
8 A. Um-hum.
9 Q. And she reported, "There is asbestiform
10 material in your fibrous talc sample of Mouldene
11 S-158."
12 Is that correct?
13 A. That would be correct.
14 MR. RADCLIFFE: Can you tell me where you
15 were reading from?
16 MS. ABRAMS: Please don't interrupt the
17 witness.
18 MR. RADCLIFFE: I'm not interrupting the
19 witness. I'm asking you.
20 MS. ABRAMS: So let me get that answer, a
21 clear answer on the videotape.
22 Is that correct?
23 MR. RADCLIFFE: I object. You are --
24 MS. ABRAMS: You can object. Say your
25 objection and then we're going to get an answer.

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1 MR. RADCLIFFE: I object. You're
2 misstating the letter. You're stating things that
3 are not there.
4 MS. ABRAMS: You can object.
5 MR. RADCLIFFE: Misleading and
6 argumentative.
7 MS. ABRAMS: What is your form objection?
8 MR. RADCLIFFE: Misleading --
9 MS. ABRAMS: That's all you're entitled to
10 is to a form objection. What is it?
11 MR. RADCLIFFE: Misleading.
12 Argumentative.
13 MS. ABRAMS: Thank you.
14 BY MS. ABRAMS:
15 Q. Is that correct, sir? That is a "yes" or
16 a "no" question.
17 A. Well, I think when you asked me what
18 something says in an analytical report --
19 Q. Mr. Kelse --
20 A. Well, I have to tell you, you need to use
21 the analytical report to -- you know, what it
22 says, it says. I'm not going to interpret what it
23 says.
24 Q. Mr. Kelse --
25 A. My understanding of what it says is that

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1 fibrous talc occurs in the sample. The fibrous
2 talc can occur in fiber bundles with splayed ends
3 that does look like asbestos. Those would be
4 referred to as asbestiform.
5 Q. Thank you.
6 Now, with respect to the anthophyllite in
7 the sample, according to this letter, it's correct
8 that she doesn't believe that the anthophyllite is
9 asbestiform; correct?
10 A. She says it doesn't display asbestiform
11 characteristics.
12 Q. And that's also true of the tremolite;
13 correct?
14 A. That's what she says.
15 Q. Okay. And, according to Dr. Wylie, in the
16 Mouldene S-158 sample, the tremolite and
17 anthophyllite together total 5 to 10 percent of
18 the sample; correct?
19 A. That's what she says.
20 Q. And then there are a few percent that are
21 carbonite, quartz and other materials; correct?
22 A. That's right.
23 Q. So at least something on the order of 80
24 plus percent of this material is fibrous talc;
25 correct?

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1 MR. RADCLIFFE: Object to the form.
2 Misstates --
3 THE WITNESS: I cannot -- yeah, I cannot
4 conclude that. She does not give a complete
5 rundown of every mineral that she analyzed from
6 the talc.
7 She talks about talc fiber, which would be
8 a focus point. She talks about anthophyllite, the
9 crystal form of anthophyllite and tremolite that
10 she sees. She gives -- she gives a percentage of
11 tremolite anthophyllite that she's talking about.
12 Whatever else exists in this product, like
13 serpentine and tigerite, lizardite, for example,
14 which is common in industrial grade talcs up
15 there, she doesn't comment on at all.
16 But that doesn't mean it's not there.
17 MS. ABRAMS: Mr. Kelse, I move to strike
18 as nonresponsive.
19 BY MS. ABRAMS:
20 Q. I direct your attention to the second
21 sentence of this letter: "The material in sample
22 Mouldene S-158 consists primarily of fibrous talc
23 with small amounts of tremolite, anthophyllite,
24 carbonite, quartz, platy talc and feldspar."
25 Is that a correct reading of that?

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1 A. Yes, actually -- yeah. That --
2 Q. Do you see any other mention of any other
3 material in that statement?
4 A. No. No, I don't.
5 Q. And it's correct that this is an
6 analytical report?
7 A. Right.
8 Q. And in an analytical report this scientist
9 is going to be very exacting about what's in the
10 material; isn't that correct?
11 MR. RADCLIFFE: Objection. Argumentative.
12 THE WITNESS: Well, she reports what she
13 reports.
14 Maybe I misconstrued your question. I --
15 I took it as the tremolite and anthophyllite and
16 all the rest is -- is talc fiber. And -- and I
17 responded, but I don't think that's the case.
18 But she's not saying that's the case. She
19 gives other components, so I don't know what --
20 what the percentage of the -- the other components
21 are.
22 I only know that the tremolite and
23 anthophyllite, based on her report, together was 5
24 to 10 percent of the sample. That's all I know in
25 terms of composition and quantity.

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1 BY MS. ABRAMS:
2 Q. Well, let me direct your attention to the
3 last sentence of the fifth paragraph, which says,
4 "A few percent" -- she's already told you there's
5 5 to 10 percent of tremolite and anthophyllite.
6 A. Right.
7 Q. Then she goes on to say a few percent of
8 the sample is carbonite.
9 A. Right.
10 Q. Which she mentioned in the first
11 paragraph.
12 A. Right.
13 Q. A little less is quartz.
14 A. Right.
15 Q. And feldspar occurs only in trace
16 quantities.
17 A. That's correct. But if you notice, she
18 mentioned platy talc up at the top.
19 Q. So we don't know how much platy talc?
20 A. Exactly.
21 Q. But we do know that the material primarily
22 consists of fibrous talc; correct?
23 MR. RADCLIFFE: Objection.
24 MS. ABRAMS: That's from the second
25 sentence of the first paragraph.

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1 MR. RADCLIFFE: Objection.
2 MS. ABRAMS: Do you see that? "The
3 material consists primarily of fibrous talc."
4 MR. RADCLIFFE: Objection. Argumentative.
5 THE WITNESS: That's what she says.
6 BY MS. ABRAMS:
7 Q. "With small amounts of tremolite,
8 anthophyllite, carbonite, quartz, platy talc and
9 feldspar." Correct? Did I read that right?
10 A. You read it correctly.
11 Q. Thank you.
12 So, other than that Dr. Wylie study of a
13 specific sample of Mouldene talc, sample S-158,
14 which is a direct statement of what is in the
15 Mouldene, what else do you have with you as the
16 representative of R.T. Vanderbilt that shows what
17 is in Mouldene material?
18 MR. RADCLIFFE: Objection. Argumentative.
19 THE WITNESS: I have nothing that is this
20 specific. All I have is a general discussion by
21 Dr. Thompson describing his experience in
22 analyzing this material when he first looked at it
23 in the early '70s.
24 BY MS. ABRAMS:
25 Q. And this is a September 23, 1987, letter

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1 from -- interoffice memorandum from Dr. Thompson
2 to Paul Vanderbilt; correct?
3 A. That's correct.
4 MS. ABRAMS: We we're going to mark that
5 as Exhibit 4.
6 (Plaintiff's Exhibit No. 4 marked for
7 identification.)
8 BY MS. ABRAMS:
9 Q. I'd like you to direct your attention to
10 this -- and you had this interoffice memorandum in
11 your files?
12 A. In a file marked "Mouldene," yes.
13 Q. I just want to clarify, you -- in your
14 office you actually had a file marked "Mouldene,"
15 you didn't create that for today; correct?
16 A. That's correct.
17 Q. I thought that's what you said.
18 And what -- is the sum total of what's in
19 your file in your office, did you bring all that
20 with you today?
21 A. No. There were some additional documents
22 that pertained to one other entry, which was this.
23 And that's all that was extra that I didn't bring.
24 And this had to do with removing bags from a
25 facility. And there were some bills from carriers

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1 and things of that nature. They were sort of
2 business documents.
3 Q. Okay. We'll get to that next. Put that
4 under here and do that one next; okay?
5 A. Okay.
6 Q. Now, we're going to be talking to
7 Mr. Thompson -- is it Mr. -- Dr. Thompson?
8 A. Correct.
9 Q. He's a Ph.D. mineralogist?
10 A. Yes.
11 Q. Dr. Thompson. And so, other than what's
12 on this page that he wrote in a memorandum to Paul
13 Vanderbilt, do you have any independent knowledge
14 through discussions with him or otherwise what
15 transacted that he talks about in this memo?
16 A. No. This characterizes my understanding
17 of his involvement in the analysis.
18 Q. When did you first learn that there was a
19 lawsuit against the R.T. Vanderbilt Company
20 concerning Mouldene talc?
21 A. When I was asked to look in my files and
22 see what I had that pertained to Mouldene. It was
23 a request from Hawkins & Parnell, so obviously it
24 must have had something to do with the case, so I
25 produced what I had.

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1 Q. I apologize if I already asked you this,
2 but approximately when was that?
3 A. Oh, boy. It had to be, I don't know -- I
4 hate to -- it was at least three, four weeks ago
5 at least, I think.
6 Q. In that interim, have you talked to
7 Dr. Thompson about anything with respect to the
8 information that we've -- well, in the interim
9 have you had any conversations at all with Mr.
10 Thompson? Maybe not.
11 A. Yes, I have. And actually, I showed him
12 this and asked if he had remembered it, and if
13 this was, you know, what he thought of it now.
14 And it's obviously -- you know, he's talking about
15 an event that occurred quite a few years before he
16 even wrote the memorandum.
17 But what I got from the few discussions
18 I've had with him is that this is an accurate
19 depiction of what went on in terms of his
20 analyzing those International Talc five grades or
21 materials.
22 Q. Did he tell you whether or not in his
23 opinion Mouldene talc contains asbestiform
24 material?
25 A. Oh, I -- sure. He feels it does. It's a

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1 high-fiber grade, as I mentioned before.
2 Q. Do you know -- well, so in your opinion,
3 does Mouldene talc contain asbestiform material?
4 MR. RADCLIFFE: Object to form. Asking
5 for an opinion from a fact witness.
6 THE WITNESS: My opinion is based on, you
7 know, what -- what a, you know, a knowledgeable
8 mineral scientist would tell me that's actually
9 looked at the material.
10 I wouldn't second-guess that person. I
11 don't second-guess Dr. Thompson and I wouldn't
12 second-guess Dr. Wylie. In both cases, they will
13 -- they will tell you that it has quite a bit of
14 talc fiber, very high proportion of talc fiber,
15 some of which would be properly described as
16 asbestiform.
17 BY MS. ABRAMS:
18 Q. And you have testified several times
19 regarding government regulations with respect to
20 asbestos and -- and whether or not Vanderbilt talc
21 fits under those regulations; correct?
22 A. Well, I've testified in regulations that
23 pertain to the definition of asbestos to that
24 extent, yes.
25 Q. You've testified that the Vanderbilt talc,

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1 at least that comes out of the Arnold pit, does
2 not contain asbestos, correct, or asbestiform
3 material?
4 MR. RADCLIFFE: Object to form. Misstates
5 prior testimony.
6 THE WITNESS: You're using asbestiform as
7 a synonymous for asbestos. It's not.
8 BY MS. ABRAMS:
9 Q. You don't believe those are the same
10 thing?
11 A. No, they're not.
12 Q. Do you believe the government regulates
13 asbestiform material?
14 A. They -- they regulate the asbestiform
15 varieties of six specific minerals.
16 Q. Okay. And what are those?
17 A. The serpentine chrysotile, but the word
18 "chrysotile" means asbestos. They mean the
19 asbestiform variety of -- of tigerite and
20 lizardite which is the common way in which -- that
21 the serpentine grows. The chemical composition of
22 both are not exactly, but they're very close.
23 And then there are five amphiboles that
24 they regulate. And that the mineral science
25 community, as I understand it, also define as

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1 asbestos is if they form in the asbestiform
2 crystal growth habit.
3 And those are crocidolite, or blue
4 asbestos, and that, like chrysotile, because it
5 was commercial, has a separate name. It's
6 actually -- the non-asbestiform variety has a
7 separate name called riebeckite.
8 Then the second amphibole is -- the
9 mineralogist would call it asbestiform grunerite.
10 Typically, it's referred to as amosite which is an
11 acronym of asbestos produced in mines in South
12 Africa.
13 But that has a more common, as they all
14 do, a more common non-asbestiform analog coming to
15 right -- grunerite. That's the type of amphibole
16 material that appears in some gold mines and iron
17 mines.
18 Then there is tremolite, anthophyllite and
19 actinolite.
20 These last three amphibole minerals were
21 rarely mined, if ever, in the case of actinolite
22 for commercial uses and they never had a separate
23 name.
24 But they -- just like the other three,
25 they -- they appear in two forms. They're very

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1 rare asbestiform and the more common, everyday,
2 garden variety, crushed up stone, random crystal
3 formation type.
4 So, in other words, asbestos is one of
5 these six minerals that's asbestiform. If it's
6 not asbestiform and it's not one of these six
7 minerals, it's not asbestos. Period.
8 It's regulated as asbestos by any
9 regulatory agency in the country.
10 It's not defined as asbestos by mineral
11 scientists.
12 Q. So I'm going to move to strike that and
13 ask you again. And I appreciate your answer, but
14 I'm wondering if you could just answer. You said
15 there are six.
16 Could you just name the six so we have a
17 clear record of what they are?
18 A. Right. Chrysotile, serpentine;
19 crocidolite, amphibole; amosite, amphibole;
20 tremolite asbestos; anthophyllite asbestos; and
21 actinolite asbestos.
22 Q. Thank you.
23 So is it your understanding as a person
24 most qualified from R.T. Vanderbilt Corporation,
25 someone who's testified at hearings on this

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1 subject for R.T. Vanderbilt, that the material in
2 the -- the asbestiform material in the Mouldene
3 that we just talked about --
4 A. The talc fiber.
5 Q. -- is not subject to government
6 regulation?
7 MR. RADCLIFFE: Object to the form.
8 Argumentative.
9 MS. ABRAMS: As asbestos.
10 THE WITNESS: As asbestos. No, it's not.
11 MR. RADCLIFFE: Same objection.
12 BY MS. ABRAMS:
13 Q. Now, you agree with me that -- well,
14 strike that.
15 Do you know one way or the other whether
16 this material, as we -- as it's described as an
17 asbestiform material with particular fiber
18 characteristics, causes -- or does not cause
19 disease any more or less than any one of those six
20 categories of material that you just described to
21 us?
22 Do you have an opinion on that?
23 MR. RADCLIFFE: Object to the form.
24 Opinion from a lay witness.
25 MS. ABRAMS: That's a "yes" or "no"

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1 question.
2 THE WITNESS: I do have an opinion.
3 BY MS. ABRAMS:
4 Q. And you're not a medical doctor; right?
5 A. That's correct.
6 Q. And you're not a mineralogist; correct?
7 A. That's correct.
8 Q. So what would your opinion be based on if
9 you were to give it to me?
10 A. It would be based on health studies that
11 involve samples of material that contained talc
12 fiber, some of which was asbestiform.
13 BY MS. ABRAMS:
14 Q. Well, wait a second. Do you have health
15 studies in your possession that have in -- excuse
16 me -- have information in them that tell us
17 anything about health effects of Mouldene talc
18 as -- that came out of Mine No. 3 in Talcville?
19 A. Okay.
20 Q. That's a "yes" or no question.
21 MR. RADCLIFFE: Object to the form.
22 Argumentative.
23 BY MS. ABRAMS:
24 Q. That's a "yes" or "no" question. Do you
25 have studies --

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1 A. Okay. And here is why -- can I explain
2 why I'm having difficulty answering the question?
3 Q. Well, first you have to answer the
4 question, then you can tell me why you can't
5 answer it.
6 Can you answer the question?
7 A. If you help me, I might be able to help
8 answer the question.
9 Q. All right.
10 A. You're asking me about talc fibers,
11 specifically the talc fiber that is asbestiform.
12 Q. I'm asking you about Mouldene talc fiber.
13 A. Mouldene, oh, as different than the talc
14 fiber that's anywhere else?
15 Q. Exactly. I'm asking you about Mouldene
16 talc fiber that came out of Mine No. 3 that has
17 the characteristics that were in sample S-128.
18 Do you have any studies in your possession
19 as the custodian of records and person most
20 knowledgeable at Vanderbilt about the studies
21 regarding Mouldene talc that specifically address
22 the health effects of Mouldene talc on its workers
23 or anybody else?
24 MR. RADCLIFFE: Objection. Ignores prior
25 testimony.

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1 THE WITNESS: Limited to just the way you
2 phrased the question, I would have to say no.
3 BY MS. ABRAMS:
4 Q. So, other than us actually talking to
5 Dr. Thompson about the memo he wrote, do you have
6 any personal knowledge to add to what he says in
7 this memo?
8 A. I do not.
9 MS. ABRAMS: Then we'll just mark that and
10 move on.
11 BY MS. ABRAMS:
12 Q. So let's move on to what we'll mark as
13 Exhibit 5, I believe, which is entitled "Note to
14 the File," and it's got your name on it. So I
15 take it that's your note to the file?
16 A. Yes, it is.
17 Q. All right.
18 (Plaintiff's Exhibit No. 5 marked for
19 identification.)
20 BY MS. ABRAMS:
21 Q. And you mentioned that you had other
22 documents with respect to this file. About how
23 many other documents do you have in your file that
24 address this issue?
25 A. Well, that are linked to this, about 12,

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1 maybe 12 pages.
2 Q. We ask that you produce those to your
3 attorney and that they produce those to us because
4 they all have to do with this document that you
5 have raised as relevant to this case.
6 Can you explain to us why you believe this
7 is something important that you brought today?
8 A. I wouldn't say it was necessarily relevant
9 to this case. And I brought the file that said
10 "Mouldene" on it and what documents I had in that
11 folder. I don't know if removal of bags at a
12 facility in Syracuse, New York is very relevant to
13 the case, but it was -- that's why I just included
14 the summary. I could have attached 10 or 15 pages
15 of -- it cost "X" number of dollars for this truck
16 and the guy showed up at this time, and, you know,
17 that kind of stuff, if that was helpful. These
18 files were for me to help you.
19 Q. It has in there the name of the company
20 that did the abatement; correct?
21 A. Removal, yes.
22 Q. Well, it was an abatement contractor;
23 correct? It was a licensed abatement contractor
24 that did the removal; is that correct?
25 A. Yes. That's what it says. Again, I'd

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1 have to go back and read, but I believe it was.
2 Because we were handling this material because it
3 had an asbestos label on it.
4 Q. And this was after 1987 or '89 when you
5 understand that Mr. Thompson -- or Dr. Thompson
6 was very clear that Mouldene did not contain
7 asbestos; correct?
8 A. That's right.
9 Q. And he actually -- and you conveyed that
10 to the people in -- at Armstrong Mill Company;
11 correct?
12 A. I did.
13 Q. And whose advice -- on whose advice was it
14 that a licensed abatement contractor should do
15 this in the abundance of caution?
16 A. It -- it evolved from a discussion between
17 myself and the company. As the memo indicates, we
18 felt that it was, even though it was not an
19 asbestos-containing material, it did have this
20 old, you know, label, this incorrect label on it.
21 And it was probably better to simply handle it as
22 though it did and it would be less of a problem.
23 If we did, we would -- it would be fewer
24 people raising issues and questions and then we'd
25 have to try to go through the whole discussion of

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1 why it doesn't contain asbestos, and it was just
2 easier to just treat it this way. And I think
3 that's what the memo reflects.
4 Q. So rather than take a small sample, send
5 it to a lab, test it, and show that there wasn't
6 any asbestos in it, you chose to get an abatement
7 contractor, remove 300 bags and put them in a
8 special waste facility solely for regulated
9 material; correct?
10 MR. RADCLIFFE: Object to the form.
11 Argumentative.
12 BY MS. ABRAMS:
13 Q. Is that correct?
14 A. Yes.
15 Q. And what was the cost of that?
16 A. Again, those papers would -- would
17 indicate. I don't know exactly what it was.
18 Q. Was it thousands of dollars?
19 A. It was a couple thousand. It wasn't too
20 much.
21 Q. Do you know how much it would cost to take
22 a sample to a lab and test it?
23 A. Oh, probably -- depending on how much
24 analysis you had done, it could cost more, but
25 just --

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1 Q. Do you know?
2 A. Depending on the analysis that you had
3 done, it would -- you know, probably, I would have
4 asked to have the same type of analysis done that
5 Dr. Wylie did which is light microscopy, and so it
6 would have cost less.
7 Q. You have a sample; correct? Or you had
8 one then, K-100 Mouldene? You took a sample from
9 those bags and labeled it K-100 Mouldene to keep
10 and file with the records just in case; correct?
11 A. That's correct.
12 Q. And you still have that sample?
13 A. Yes, I do.
14 Q. And where is that sample?
15 A. I have it.
16 Q. And you didn't bring it here today?
17 A. No.
18 Q. But you knew this was all about Mouldene
19 and your lawyers told you to bring everything that
20 you had about Mouldene.
21 Have you given it to your lawyers?
22 MR. RADCLIFFE: Objection. Argumentative.
23 THE WITNESS: Well, I made the file
24 available.
25 MR. RADCLIFFE: Compound.

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1 BY MS. ABRAMS:
2 Q. So they knew it was in there; correct?
3 A. I would assume. I made the file available
4 to them.
5 MS. ABRAMS: We are asking for that sample
6 of Mouldene talc. We've requested samples, we've
7 requested exemplars, and we've requested
8 everything that has to do with Mouldene talc.
9 Do you have any other samples --
10 MR. RADCLIFFE: I don't think you
11 requested it for today. Whether you requested --
12 MS. ABRAMS: No. We requested it months
13 ago.
14 MR. RADCLIFFE: I'm not sure that you
15 have.
16 BY MS. ABRAMS:
17 Q. Do you have any other samples of Mouldene
18 talc or know of any other samples of Mouldene
19 talc?
20 A. Yes, we do have a sample of Mouldene talc.
21 Q. Where -- what sample do you have?
22 A. Right now it is in Dr. Thompson's old
23 mineral lab in a brown container marked
24 "Mouldene."
25 Q. And how is that packaged?

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1 A. In a sort of a rectangular metal box with
2 a brown wrapper around it.
3 Q. Like a paper bag?
4 A. No. It's not a paper bag. It's almost a
5 glued-on almost label that goes all the way around
6 it.
7 Q. Is it sealed up in any way?
8 A. Oh, yes.
9 Q. How is it sealed up?
10 A. The metal stopper on the top is pushed
11 down.
12 Q. Is there any dust on it?
13 A. I -- I -- I looked at it. I didn't see
14 any obvious dust, but I'm sure, you know, who
15 knows.
16 Q. Is that Mouldene sample S-158, if you
17 know?
18 A. I don't know whether it is or not.
19 Q. Do you know where Mouldene sample S-158
20 is?
21 A. I don't.
22 Q. And how do you know that Dr. Thompson has
23 that sample of Mouldene talc?
24 A. I was asked to see if we had any samples
25 and I checked the -- the -- you know, that lab to

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1 see if -- if -- if there was, and, in fact, there
2 was.
3 Q. Is that the only --
4 MR. RADCLIFFE: Objection. Misstates
5 prior testimony. Argumentative.
6 BY MS. ABRAMS:
7 Q. Is that the only sample that you found?
8 A. It is.
9 Q. Except for the one that you have in your
10 own lab; correct?
11 A. In my office from -- from --
12 Q. I'm sorry, your office.
13 A. Yes.
14 Q. And where do you keep your sample?
15 A. It's actually a small bag, and it was
16 actually in the file (indicating). It's actually
17 really small.
18 Q. And you've had that sample in your file
19 since May 4, 1992?
20 A. That's correct.
21 Q. Has that sample ever been tested?
22 A. Not to my knowledge.
23 Q. You've never sent it out for testing?
24 A. No.
25 Q. Has Dr. Thompson's sample ever been

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1 tested?
2 A. I -- I don't know. You'll have to ask
3 him. It may have, the one that was sent to Dr.
4 Wylie, but I don't have direct knowledge of that.
5 Q. Have you talked to Dr. Wylie recently in
6 the last several years?
7 A. In the last several years?
8 Q. Yes.
9 A. Yes.
10 Q. Have you talked to her in the last year?
11 A. Yes.
12 Q. Have you talked to her in the last six
13 months?
14 A. No. I don't think so.
15 Q. Have you talked to her about Mouldene talc
16 in the last year?
17 A. I have not.
18 Q. What have you talked to Dr. Wylie about?
19 A. On one occasion, I asked if she would be
20 available to participate in one of our cases and
21 she wasn't.
22 On another occasion we were talking -- I'm
23 working on a project and I wondered if she would
24 review it, which she agreed to do. But I have not
25 produced that to her yet.

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1 Q. And that doesn't involve Mouldene talc?
2 A. Oh, no.
3 THE REPORTER: At a convenient time can we
4 take a break?
5 MS. ABRAMS: Sure. Let's take a break
6 right now.
7 THE VIDEOGRAPHER: We're going off the
8 record. And the present time is now 2:39 p.m.
9 (Recess taken.)
10 THE VIDEOGRAPHER: We're back on the
11 record. The present time is 2:51 p.m.
12 BY MS. ABRAMS:
13 Q. Let's turn now to the next exhibit, which
14 is marked at the top "R.T. Vanderbilt Company, 30
15 Winfield Street, Letter to Georgia-Pacific."
16 Was Georgia-Pacific, to your knowledge, a
17 customer of R.T. Vanderbilt?
18 A. To the extent it's suggested in the
19 correspondence, that's as far as I can go.
20 Q. Do you have any other knowledge of
21 Georgia-Pacific other than the fact that the
22 company wrote a letter to them?
23 A. No.
24 Q. Well, let me ask you -- did you -- I've
25 got these all these paper-clipped together.

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1 Did you produce these four pages as one
2 document, or are we looking at these separately?
3 A. Three actually.
4 Q. And which are the three, the R.T.
5 Vanderbilt Company?
6 A. Right.
7 Q. Then there's a document after that which
8 is a picture of something.
9 A. Right, terrible picture of a bag label.
10 Q. And then what else?
11 A. Material safety data sheet that was
12 produced at the time.
13 MS. ABRAMS: So let's mark those next
14 three documents as Exhibit 6.
15 (Plaintiff's Exhibit No. 6 marked for
16 identification.)
17 BY MS. ABRAMS:
18 Q. On the bottom of the first page on that
19 document, it -- there's a -- it says, "PL1 Morvay
20 5-1-80."
21 Do you know what that is? That stamp in
22 there?
23 A. I don't.
24 MR. RADCLIFFE: Is that the document that
25 we're going to mark? Do you have that in front of

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1 you?
2 MS. ABRAMS: Just a second. I'm doing
3 something here. I'm trying to find the second
4 page of this.
5 BY MS. ABRAMS:
6 Q. Do you believe that that is an exhibit?
7 It says, "PL1 Morvay."
8 Have you ever heard the name Morvay?
9 A. It does sound vaguely familiar like it
10 might have been a case at some point.
11 Q. Might that have been a case back around
12 the time when you first started working for R.T.
13 Vanderbilt Company?
14 A. Oh, Morvay -- that -- you know, it just
15 refers to Pamela Morvay, I see. So she must have
16 been a specialties department, that must have been
17 a clerical person in the specialties department,
18 the sales part of -- somebody in sales.
19 Q. I see. And is there still a specialties
20 department at the R.T. Vanderbilt Company?
21 A. You know, I have to say I'm not sure.
22 There was up until a couple of years ago. I'm not
23 sure now.
24 Q. Okay. What was the specialties
25 department? What did they do?

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1 A. Well, my understanding was, they were sort
2 of miscellaneous. We have different departments
3 for different product applications. This was sort
4 of the miscellaneous one.
5 Q. So is it fair to say that -- strike that.
6 Is it the product that was being talked
7 about in here that was miscellaneous or the
8 warning or the discussion? What is miscellaneous
9 about this document?
10 MR. RADCLIFFE: Objection. Argumentative.
11 BY MS. ABRAMS:
12 Q. If you know?
13 A. I'm not sure I understand the -- the
14 question. It's -- I -- I refer to miscellaneous
15 as a specialties department.
16 Q. This was a letter to a customer; correct?
17 A. That's -- that's correct.
18 Q. Why would a letter to a customer come out
19 of the specialties department, if you know?
20 A. Well, it would be because the specialties
21 department placed the order, was working with that
22 customer. So they had a salesman that interfaced
23 with Georgia-Pacific.
24 Q. Was the product under discussion one of --
25 a specialty product?

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1 A. No. Specialties, that's what I referred
2 to as miscellaneous. We have departments for
3 rubber, you know, sales, the products that go into
4 rubber products, sales. We have paint and paper,
5 products that go into paint and paper. It's sort
6 of linked to the -- to the end use of products.
7 Specialties sort of fell into a gray area.
8 It may not have fit in one of the other
9 departments, or it may just be that a salesman
10 happened to be living, you know, near that
11 particular plant or -- or customer and ended up
12 being managed through that department.
13 Q. Do you have an understanding of what
14 Mouldene talc was used for?
15 MR. RADCLIFFE: Objection. Beyond the
16 scope.
17 THE WITNESS: You know, I really don't.
18 BY MS. ABRAMS:
19 Q. And this letter was in your file?
20 A. Yes, it was.
21 Q. Correct? What is your understanding of
22 the substance of this letter? Why did you produce
23 it today?
24 A. Well, it's all linked to what Dr. Thompson
25 described in this memorandum to Paul Vanderbilt

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1 that we discussed a little while ago.
2 This was the offshoot of Dr. Thompson
3 mischaracterizing -- or characterizing the
4 materials -- or some of the material in these five
5 grades as being asbestos when actually that was an
6 error, when -- when, in fact, it wasn't.
7 Q. This is a 1975, January 2nd letter. And
8 in that letter, Mouldene talc is listed as an
9 asbestiform, fibrous asbestiform talc; correct?
10 A. I must say I'm confused by the last
11 paragraph that the -- that the salesperson wrote.
12 It doesn't make any sense to me.
13 Q. And that paragraph reads, "As you know,
14 the mineral fibers present in these grades which
15 make them" -- my copy is not readable.
16 A. I think it's industrially useful.
17 Q. -- "are the asbestiform varieties of those
18 minerals normally contained in the commercial talc
19 and consequently fall under Section 1910.93A of
20 the OSHA asbestos standard."
21 What is it about that, that you don't
22 understand?
23 A. Well, they don't fall under that section.
24 And they are not -- they are -- you know,
25 asbestiform variety of these minerals. It would

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1 have to be one of the six -- six that we talked
2 about a little while ago. It's none of those, so
3 it -- it has -- it is not asbestos. So her
4 description here is just incorrect.
5 Q. So is it your understanding that on
6 January 2nd, 1975, the asbestiform varieties of
7 the minerals under discussion were not regulated
8 under Section 1910.93A of the OSHA asbestos
9 standard?
10 A. The asbestiform varieties of the minerals
11 in these five grades were not. The confusion
12 existed in that the company believed that one of
13 those six minerals, either anthophyllite asbestos
14 or chrysotile I think it was anthophyllite
15 asbestos existed in these five grades and
16 consequently were prepared to label it as such and
17 did, in fact, label it as such.
18 Q. So what you're saying is that they didn't
19 make a mistake in how they analyzed the fiber,
20 they analyzed the fiber correctly, but they
21 didn't -- but the way the fiber was, wasn't
22 regulated; is that what you're saying?
23 MR. RADCLIFFE: Object to the form.
24 Misstates prior testimony.
25 MS. ABRAMS: Do you understand the

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1 question?
2 MR. RADCLIFFE: Misstates prior testimony.
3 THE WITNESS: No. I -- I understand that
4 as I said, this paragraph at the bottom is not
5 correct. This is not properly stated.
6 BY MS. ABRAMS:
7 Q. Is it your understanding that in January
8 1975, the product Mouldene talc was not an
9 asbestiform-containing product?
10 A. January 2nd, 1975, the company believed it
11 contained asbestos, which would have been one of
12 those six minerals in the asbestiform variety that
13 I described to you before. That's what they
14 believed. They believed that based on comments
15 that Dr. Thompson made to them in error.
16 Q. I move to strike as nonresponsive.
17 Can you please read back the question.
18 (Record read.)
19 THE WITNESS: Can you read the first part
20 again?
21 (Record read.)
22 THE WITNESS: It wasn't discovered not to
23 be, and it never was.
24 BY MS. ABRAMS:
25 Q. It had no asbestiform components in 1975?

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1 A. It's not the talc fibers asbestiform based
2 on reports similar to Dr. Wylie's report that we
3 discussed before. So, yes, it contained some
4 asbestiform fiber, this talc fiber that's not
5 asbestos.
6 Q. Isn't it true, Dr. Kelse, that
7 mineralogically, based on Dr. Wylie's report of
8 fibrous talc, the asbestiform fibrous talc, that
9 material, mineralogically basically in -- in
10 certain ranges looks the same as chrysotile
11 asbestos?
12 MR. RADCLIFFE: Object to the form.
13 Argumentative.
14 BY MS. ABRAMS:
15 Q. Is that a correct statement?
16 MR. RADCLIFFE: Same objection.
17 THE WITNESS: It looks the same. The
18 meaning of the term "asbestiform," looks like.
19 Oh, and thank you for the promotion. It's
20 Mr. Kelse.
21 BY MS. ABRAMS:
22 Q. Okay. So you agree with me that the
23 Mouldene talc that Dr. Wylie looked at under the
24 microscope, the appearance of the fiber, the
25 length of it, the width of it, the aspect ratio of

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1 it, every aspect of it, some of those fibers
2 looked exactly like chrysotile asbestos?
3 A. I would say "resembled." I don't know if
4 you'd use the word "exactly." I don't know that
5 there is an exact description to any -- you know,
6 even the asbestos fibers are different depending
7 on where they come from, and -- you know.
8 But they are of a certain category, have
9 certain characteristics. They met those
10 characteristics, looked like it, that they met
11 those characteristics. That's what the term
12 "asbestiform" means. That's what she said she saw
13 in -- in the Mouldene, and they were talc fiber.
14 MS. ABRAMS: I move to strike as
15 nonresponsive.
16 Could you read the question back, please.
17 (Record read.)
18 MR. RADCLIFFE: Objection. Argumentative.
19 Asked and answered.
20 BY MS. ABRAMS:
21 Q. Is that correct?
22 A. That it looked like asbestos?
23 Q. Chrysotile. In every respect. Is that
24 correct?
25 MR. RADCLIFFE: Objection. Argumentative.

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1 THE WITNESS: Oh, no. Actually, that's
2 not -- chrysotile is -- is -- not in every
3 respect. Chrysotile is a tubed -- you know, it's
4 a -- it's a phyla silica. It's rolled on itself.
5 Talc fiber is not like that. That's not
6 the form of it. The out -- the outer form, length
7 and width and some splitting, some curvature,
8 that's consistent with an asbestos fiber.
9 But that's not in every form. Every form
10 would also include the individual crystal fibrils
11 as being hollow-cored material, and -- and talc
12 fiber is not that.
13 BY MS. ABRAMS:
14 Q. In terms of the aspects of the fiber under
15 the Stanton hypothesis, could you differentiate
16 those fibers from chrysotile fibers that Dr. Wylie
17 was talking about when she was looking at fibrous
18 talc?
19 MR. RADCLIFFE: Objection. Vague and
20 ambiguous.
21 BY MS. ABRAMS:
22 Q. In the Mouldene specifically.
23 MR. RADCLIFFE: Same objection.
24 THE WITNESS: Could you just --
25 BY MS. ABRAMS:

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1 Q. That she called asbestiform.
2 MR. RADCLIFFE: Same objection.
3 THE WITNESS: Well, she --
4 BY MS. ABRAMS:
5 Q. Can you answer that question?
6 A. Well, she differentiated it using
7 refractive index.
8 Q. From chrysotile?
9 A. Sure.
10 Q. She never mentioned chrysotile one way or
11 the other, did she?
12 A. No. No, she didn't.
13 Q. So she didn't differentiate it from
14 chrysotile, did she?
15 MR. RADCLIFFE: Objection. Argumentative.
16 THE WITNESS: Well, then, she would have
17 said it was chrysotile.
18 BY MS. ABRAMS:
19 Q. She didn't differentiate it from
20 chrysotile, did she, in that report?
21 MR. RADCLIFFE: Objection. Argumentative.
22 Asked and answered.
23 THE WITNESS: I don't think -- there was
24 no chrysotile reported in her papers.
25 BY MS. ABRAMS:

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1 Q. She didn't say there was no chrysotile in
2 the material, did she?
3 A. No.
4 Q. Thank you.
5 Now, with respect to the January 2nd,
6 1975, letter, this is a letter telling
7 R.T. Vanderbilt -- by R.T. Vanderbilt telling
8 their client, Georgia-Pacific that there is
9 asbestos -- regulated asbestos material in the
10 Mouldene talc; correct?
11 A. That's what it says.
12 MR. RADCLIFFE: Objection. Argumentative.
13 BY MS. ABRAMS:
14 Q. And that they're putting a warning on the
15 material; correct?
16 A. That's correct.
17 MR. RADCLIFFE: Mr. Kelse, once again,
18 wait a heartbeat, so if I have an objection we
19 don't speak on top of each other.
20 THE WITNESS: Okay.
21 BY MS. ABRAMS:
22 Q. Do you know -- strike that.
23 These other fibers, fiber 1, fiber 2, 6,
24 apparently, and fiber MPL fiber, those apparently
25 were fibers that also came out of the

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1 International Talc Company; correct?
2 A. Yes.
3 Q. Do you know more specifically what mine
4 those fibers came from?
5 A. My heartbeat...
6 Q. That's a "do you know"?
7 A. Do I know?
8 Q. Yes.
9 A. They're International Talc products from
10 Talville.
11 Q. From Mine 3?
12 A. Yes.
13 Q. So it's your understanding that those all
14 were mined out of Mine 3?
15 A. That's my understanding, yes.
16 Q. And not the Arnold pit?
17 A. That's correct.
18 Q. And how do you know that?
19 A. It's always been described that way.
20 Q. By who?
21 A. By Dr. Thompson. He was asked to look at
22 those grades because they came out of Talville.
23 Q. And do you know how he knows that?
24 A. You'll have to ask him.
25 Q. Now, on the second page of this three-page

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1 exhibit, you've produced what is a very
2 difficult-to-read document.
3 Where did you find this document?
4 A. Okay. This is actually a photograph of
5 the bags that relate to that plant or warehouse in
6 Syracuse, New York that we talked about a little
7 earlier. This is one of those 12 or 15 pages.
8 Q. So this is a -- a photo of a bag that you
9 found in 1992?
10 A. Correct.
11 Q. And you took it in 1992?
12 A. Yes. That's when I visited the location.
13 Q. Did you take this photograph?
14 A. I don't recall whether I did or not. I
15 know I obtained it at the time. I'm not sure
16 whether I took it or not.
17 Q. Do you have the photograph?
18 A. No, I don't. I have other photographs but
19 not this specific one.
20 Q. What other photographs do you have?
21 A. The -- the bags on a pallet in the
22 warehouse. The bags on a pallet in the truck. I
23 have those two photographs.
24 Q. Where are those photos?
25 A. In that same file.

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1 Q. And you did not bring those with you
2 today?
3 A. That's correct.
4 Q. Is there some reason why you didn't bring
5 those?
6 A. Well, I put these files together with the
7 idea in mind to -- that these would help me to
8 explain questions that I thought might be asked of
9 me, not necessarily responsive to, you know, your
10 discovery.
11 Q. So you brought them not as responsive to
12 the notice of deposition but just that you felt
13 would help you in testifying?
14 A. That and where I did see that there was a
15 document missing, this cursory review that I -- I
16 made of that disk such as those couple studies
17 that we mentioned in the health file. I brought
18 those for that reason.
19 So it's really a combination, but
20 predominantly to help me try to explain these
21 issues, although I'm told my job isn't to explain
22 anything.
23 Q. Okay. So these are in your Mouldene file,
24 all the photos?
25 A. Yes.

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1 Q. And is there a -- is the photo that
2 belongs with this copy easier to read than the
3 copy that you brought here?
4 A. If I can find it, find out where it is.
5 Q. Well, it's in your Mouldene file; correct?
6 A. Yeah. I provided the -- that file when --
7 when I was requested for anything I had on
8 Mouldene. And -- and that was -- the photograph
9 was with that.
10 And when I got my file back, it wasn't in
11 it. It was just the picture of it on the paper.
12 So I don't know where the actual photograph went.
13 Q. So you gave the photograph with your
14 entire Mouldene file to Hawkins & Parnell; is that
15 correct?
16 A. I assume that's where it went, yes.
17 Q. Did you see any of that file in the
18 documents on the disk, any of those photos?
19 A. I did not. It doesn't mean it was there
20 or not. It was a very cursory look.
21 Q. And what else was missing from your file
22 when you got it back?
23 A. That's the only --
24 MR. RADCLIFFE: Objection. Argumentative.
25 THE WITNESS: That's the only thing that

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1 I -- that I know for sure.
2 BY MS. ABRAMS:
3 Q. And I'm asking that that entire Mouldene
4 file be produced without any need to go to court
5 and ask for it. I'd appreciate that immediately
6 so that we can continue to depose this witness in
7 a timely manner.
8 Do you have any understanding from memory
9 what's on this picture?
10 A. Well, the words that I read at the top are
11 the same as the words on the memo.
12 Q. All I can read is, "Caution: Product
13 contains" and it looks like "asbestos." Huh? Is
14 that correct?
15 A. That's what it looks like.
16 Q. What else do you actually see on that
17 page?
18 A. On the page or on the picture?
19 Q. In the picture.
20 A. Well, it says "asbestos fibers" --
21 Q. No, no, no. On the page with the
22 depiction, not in the letter.
23 Can you --
24 A. Oh, here?
25 Q. -- make out anything else on there?

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1 A. No. It's pretty --
2 Q. I'm pointing to the middle of the page.
3 Do you know what that word is? Does that
4 say "Mouldene" in the picture, do you remember?
5 A. I don't -- I don't remember. It could --
6 it could say that. I don't know. It's hard --
7 hard to tell.
8 Q. It would be hard to know without the
9 photo; correct?
10 A. I -- I would agree.
11 Q. But you'd be able to tell that from the
12 photo that you gave to the Hawkins & Parnell firm;
13 correct?
14 MR. RADCLIFFE: Objection, argumentative.
15 THE WITNESS: I believe so. We'd have to
16 see. BY MS. ABRAMS:
17 Q. And where did you get this picture? Did
18 you take the picture -- the -- strike that.
19 Where did you get this copied?
20 A. It was in the folder when it was delivered
21 back to me.
22 Q. So the Hawkins & Parnell firm delivered
23 back to you with your file this particular picture
24 in substitution for the photo; is that correct?
25 A. That's what it appears to be.

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1 Q. So we've learned that the company sent a
2 warning to its customer Georgia-Pacific about its
3 Mouldene and other fibers from line No. 3 that
4 said they had asbestos in it.
5 We've learned that in 1992 you saw some
6 product that had Mouldene on it at someone's plant
7 that wasn't Georgia-Pacific that had some kind of
8 cautionary label on it, which is not readable from
9 the picture, but you have a picture of that;
10 correct? Somewhere?
11 A. Somewhere.
12 Q. And what -- what do you believe we can
13 learn from the material safety data sheet that
14 you've produced?
15 A. Well, it's consistent with the label.
16 It's actually -- says "asbestiform talc," and it
17 says "and/or" asbestiform anthophyllite, which
18 is -- you know, if it's asbestiform talc, it's not
19 asbestos. But if it's asbestiform anthophyllite,
20 it would be.
21 Q. Nobody said that back in 1975, did they?
22 Do you have a reference to some -- some government
23 agency saying that if it's asbestiform talc, it's
24 not asbestos; but if it's asbestiform
25 anthophyllite, it is?

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1 A. I don't know what they were saying in 1975
2 in terms of how they defined it.
3 Q. So -- but it's your understanding
4 that's -- that's the regulation today is that's
5 how it's defined; correct?
6 A. Today that would be, yes.
7 Q. And is that written in the regulation that
8 asbestiform talc is not regulated? Is there
9 something that you can point to me in a federal
10 regulation that says asbestiform talc is not
11 considered part of this regulation?
12 A. No --
13 MR. RADCLIFFE: Objection. Compound.
14 THE WITNESS: It would be no different
15 than it would be Nike sneakers is not mentioned.
16 If it's not mentioned, if it's not specifically
17 designated as asbestos, it's not asbestos from a
18 regulatory standpoint.
19 MS. ABRAMS: Move to strike as
20 nonresponsive.
21 BY MS. ABRAMS:
22 Q. Is there somewhere in the regulation that
23 you can point to me that says talc that is
24 asbestiform is not subject to this regulation?
25 Does it specifically say that?

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1 A. No.
2 Q. Now, this document has a stamp on it that
3 is an Exhibit No. 6 to a case called Ballard
4 versus Owens.
5 Do you know anything about that case?
6 A. I don't.
7 Q. Were you -- did you give a deposition in
8 that case?
9 A. I certainly don't recall. It looks like
10 the date is '79, so...
11 Q. So this was a case in 1979. And do you
12 know what the disease was in that case?
13 MR. RADCLIFFE: Objection. Assumes facts
14 not in evidence.
15 THE WITNESS: I have no idea.
16 BY MS. ABRAMS:
17 Q. Did you ever find out what that case was
18 about?
19 A. No.
20 Q. Did you ever think that you should find
21 out what that case was about?
22 Did it ever concern you that there was a
23 case in 1979 where this exhibit about
24 R.T. Vanderbilt Mouldene talc material safety data
25 sheet was an exhibit?

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1 A. No. It wouldn't concern me.
2 Q. Now, you have several other pages in here,
3 I believe four of them, which are -- appear to be
4 PowerPoint slides; correct?
5 A. That's correct.
6 Q. And these are your depictions of various
7 matters contained in various articles and other
8 materials in your Mouldene file?
9 A. Yes. They pertain to the talc fiber
10 that's referenced in the Mouldene file.
11 Q. Okay. But these are your particular
12 slides?
13 A. Yes.
14 Q. So these would be your opinion here;
15 right?
16 Essentially, you created these for
17 purposes of presenting your understanding and your
18 opinion, not something that is a historical
19 document or something like that?
20 A. That would be --
21 MR. RADCLIFFE: Objection. Argumentative.
22 Compound.
23 BY MS. ABRAMS:
24 Q. Is that correct?
25 A. That would be correct.

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1 MS. ABRAMS: Now, I want to go off the
2 record.
3 And before I go off the record, Mr. Kelse,
4 you've been produced as the custodian of these
5 records, and, I don't care when we do this, but I
6 need to have you look through that big stack of
7 documents and tell me which of those documents you
8 believe go to your testimony as custodian which
9 you think you have and what's missing.
10 For example, we just found out that
11 there's a photo that's missing, and I need to know
12 what wasn't produced and what was produced.
13 You're the only person for all these categories
14 that can tell me all about that.
15 So I'm happy to have him do that, come
16 back and continue that part of his deposition
17 sometime at a later time, so we're not wasting
18 three hours here.
19 MR. RADCLIFFE: Well, I'm not sure I -- I
20 agree with you. There's no photo missing from
21 what you've requested, I think. I think that
22 we've provided you what you've requested. The
23 photo is missing from a file that Mr. Kelse
24 brought to help explain his understanding.
25 And the photo isn't missing. There's a

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1 photocopy. The photo itself is not in the file,
2 but there is a photocopy. So I don't agree that
3 that's a missing document.
4 I also think --
5 MS. ABRAMS: Let me explain to you. I'll
6 meet and confer with you on this.
7 We asked specifically for all documents
8 regarding -- with information regarding warnings
9 Vanderbilt provided to anyone regarding the
10 presence of asbestos in Mouldene talc. And our
11 definition of a document includes a photograph.
12 And a piece of paper that is unreadable is not the
13 best evidence and not what we asked for. We asked
14 for the photograph.
15 So I beg to differ that Vanderbilt has
16 produced everything, particularly since its
17 attorneys have the photograph.
18 But I don't want to sit and quibble about
19 that. I just want to know whether this custodian
20 of records that you've produced that hasn't even
21 looked at the custodian of records' submission
22 that we sent him -- so if he's the custodian, I
23 need him to look at the documents or look at the
24 disk or look at whatever you want and confirm that
25 everything that he knows of, everywhere that he's

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1 looked, and that it's all there.
2 That's what I'm entitled to under
3 California law. So I'm not trying to be
4 difficult, but my understanding from his testimony
5 is that he never saw this document, he never
6 looked for anything other than what he felt like
7 bringing with him today, and he hasn't reviewed
8 the documents.
9 And yet, he's here as Vanderbilt's
10 representative with respect to the categories of
11 things that we've asked for.
12 So I'm meeting and conferring with you and
13 I'm trying to work this out as best as we can to
14 move forward and -- you know, so that I don't have
15 to go to court and ask the judge to exclude all of
16 your evidence because you haven't properly
17 produced it.
18 So I'm happy to do it however you want,
19 but I'm just trying to get the information that I
20 want and make sure it's all covered.
21 MR. RADCLIFFE: First of all, Mr. Kelse
22 said he did look through the documents that were
23 produced. He said that he didn't go through them
24 page by page, but he did look through them.
25 I also don't think it's required that he

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1 look at the documents requested as long as he's
2 aware of the documents that are requested. You've
3 never asked him if he was requested to look for
4 specific documents and why he was requested to
5 bring specific documents. Those are not questions
6 that you asked.
7 We don't have to show him the list, as
8 long as he's aware of what he's supposed to bring.
9 Now, he made a comparison according to his
10 testimony. He tried to look through the CD that
11 was produced to you.
12 He's identified some documents that were
13 not included on the CD. I'm not sure -- I
14 think we -- frankly, I have to look at those
15 documents to see if they were even requested.
16 Just because they were kept in a file
17 doesn't mean that you requested them. Your very
18 specific requests were responded to by prior
19 counsel. If they missed a document and you're
20 entitled to it, we'll give it to you. But I don't
21 know that that document exists, as I sit here
22 right now.
23 MS. ABRAMS: Well, I don't know if it
24 exists either. But it did exist, and it existed
25 before it went to Hawkins & Parnell.

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1 MR. RADCLIFFE: Well, you're talking about
2 the photograph. I'm talking about other
3 documents.
4 MS. ABRAMS: Look. I'm not here to argue
5 with you. This man is here as your corporate
6 representative who is your custodian of records.
7 And my understanding is, that basically he flipped
8 through a disk, but he didn't really look for
9 anything.
10 And he can't say really whether the stuff
11 on the disk is a complete rendition of what is
12 actually in the R.T. Vanderbilt files with respect
13 to this corporation.
14 If you want to let that stand, that's
15 fine. I'll just move to exclude all your
16 evidence. I'd like to give you the opportunity
17 because we're going to be taking his deposition
18 again, to go and do the proper custodial search
19 and have him look through his files and have him
20 talk to people and have him do whatever he needs
21 to do so that we can get the information that we
22 need on Mouldene talc. He's got a sample in his
23 file. Mr. Thompson has a sample.
24 I mean, come on. We filed this case a
25 long time ago. We sent out this deposition notice

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1 from May 26th. We're sitting here in August
2 taking a deposition. And we just need to expedite
3 this, so I'd like to expedite as best we can. I
4 understand you're new to the case, but the -- but
5 your client is not new to this case and we need to
6 just move forward.
7 So you can -- you know, if you want to go
8 off the record, take a break later, we'll talk
9 about it. If you don't want to talk about it
10 anymore, that's fine.
11 I'm just trying to work with you so that
12 we can be sure that we have everything that we
13 need in the case concerning Mouldene talc which
14 isn't something that I understand has come up many
15 times before with the R.T. Vanderbilt Company.
16 MR. RADCLIFFE: I'll be happy to talk to
17 you. My understanding is that you have never --
18 on the sample, my understanding is that your first
19 request for the sample was made in discovery that
20 was filed at the end of July, a response to which
21 is not yet due.
22 So if you're implying that we've had a
23 sample and we haven't produced it to you for some
24 reason, that's not accurate. Our time to even
25 respond to that discovery has not yet run.

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1 As I said, I think directly in response to
2 documents, it's my understanding that counsel went
3 through the documents and produced what you asked
4 for.
5 Just because Mr. Kelse has six inches of
6 documents in his file doesn't mean that you asked
7 for all six inches.
8 If you only asked for documents that were
9 perhaps three documents out of that pile that were
10 responsive, that's what you were given.
11 I also said, if there are documents that
12 should have been produced and have not been
13 produced, we'll be happy to produce them.
14 THE VIDEOGRAPHER: I have to change tape.
15 MS. ABRAMS: Okay. Change the tape.
16 THE VIDEOGRAPHER: Okay. This is the end
17 of Tape No. 2, August the 10th, 2009, the
18 deposition of John Kelse.
19 We're going off the record at 3:26 p.m.
20 (Brief recess taken.)
21 THE VIDEOGRAPHER: This is the beginning
22 of Tape No. 3, August the 10th, 2009, the
23 deposition of John Kelse.
24 We're back on the record at 3:48 p.m.
25 BY MS. ABRAMS:

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1 Q. Mr. Kelse, I want to go through some of
2 these categories. I'm going to begin with
3 Category No. 4, Studies on the Presence of
4 Asbestos in Mouldene Talc.
5 You've been produced as the custodian of
6 those records, I believe, and the person most
7 knowledgeable.
8 Do you, other than what you've produced
9 today, know of any other studies of Mouldene?
10 A. No, I don't.
11 Q. You don't have Mr. Thompson's original
12 study of that material where he believed it
13 contained asbestos, do you?
14 A. No, I don't.
15 Q. Do you have any pre-studies by McCrone?
16 A. On -- for Mouldene?
17 Q. Correct.
18 A. Not that I'm aware of.
19 Q. Do you know -- other than asking Mr.
20 Thompson for those studies, do you know where any
21 studies, other studies of Mouldene, if they exist,
22 would be?
23 A. I would -- I've made an effort to try to
24 be the central repository for all analytical
25 reports that pertain to our talc.

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1 So, to that extent, I would hope that, in
2 my chronological order of those types of reports,
3 if there was another report that addressed
4 Mouldene in regard to whether it did or didn't
5 contain asbestos, I would have it.
6 Q. Do you believe there would be -- well,
7 strike that.
8 Do you believe that analytical reports are
9 kept at the production facilities?
10 A. I don't know what the production
11 facilities might have. I have -- I'm most
12 interested in that I have every one that is
13 available to us. I can't speak for an analysis
14 that was done by someone that I am not aware sent
15 out material out to be analyzed and never sent me
16 a copy of a report or told me anything of the sort
17 was produced. I just have copies of -- of reports
18 that I -- I am aware of.
19 Q. In preparation for your deposition today,
20 is it fair to say you did not search at the mill
21 production facilities or any lab for any
22 analytical studies or otherwise, any kind of
23 studies of presence -- regarding presence of
24 asbestos in Mouldene?
25 A. That's correct.

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1 Q. And other than the places I just
2 mentioned, are there any other places at
3 R.T. Vanderbilt that might have that information
4 that you can think of, other than perhaps Mr.
5 Thompson?
6 A. No. Those would be the sources.
7 Q. With respect to information Vanderbilt may
8 have received from any source regarding studies of
9 the presence of asbestos in Mouldene talc, in
10 other words, studies other than by or for
11 Vanderbilt, do you know of any of those?
12 A. I'm not aware of any, other than what I
13 mentioned before. Those I have copies for are the
14 only ones that I am aware of.
15 Q. If -- do you know whether customers have
16 ever had Vanderbilt talc analyzed?
17 A. Any Vanderbilt talc or?
18 Q. Correct?
19 A. I believe they have.
20 Q. And when a customer has reason to have
21 Vanderbilt talc analyzed and they decide to send
22 it to Vanderbilt Talc, who do they send it to? Or
23 what department?
24 A. I would say it would come to me. Whether
25 it was addressed to me, it may go to -- to whoever

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1 they know as being their contact with Vanderbilt
2 who could be a salesman.
3 But, one way or another, I would hope that
4 I would get all the reports. I believe I -- I --
5 I have them, but I can't speak for things I -- I
6 don't know about.
7 Q. Well, is there a procedure within
8 Vanderbilt if a customer has a complaint or a
9 report of that nature, that that procedure is to
10 send it to you in your capacity as the Vanderbilt
11 manager?
12 A. I wouldn't call it a formal procedure, but
13 it's -- it's generally recognized that that's
14 what's done.
15 Q. Did you talk to any of the sales -- people
16 in the sales department to determine whether they
17 had in their files any customer correspondence
18 with respect to the presence of Vanderbilt -- of
19 asbestos or the question of asbestos in any
20 Vanderbilt talc?
21 A. No, I did not.
22 Q. And if they were kept in the files of the
23 sales department, what files would they be kept
24 in?
25 A. I -- I don't know.

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1 Q. Is there a customer complaint department?
2 A. Yes, there is.
3 Q. Who heads that department?
4 A. I believe that would be Jerry Dvornek.
5 Q. And did you speak to Mr. Dvornek about
6 this matter?
7 A. No, I didn't.
8 Q. Do you know if he keeps files of customer
9 complaints?
10 A. Well, he is in charge of the quality
11 control program which is linked to customer
12 complaints. He keeps records of complaints, types
13 of complaints, broken bags, shipments, things of
14 that nature. And he provides a report of those
15 types of incidents.
16 I have never seen, in the time I've been
17 there, the quality and the customer complaint
18 department handle an issue or question on
19 Vanderbilt talc in terms of its composition. It's
20 always -- maybe two over a span of 20 years, and
21 it was just directed to me.
22 Q. What were those two?
23 A. As I said, maybe two, it would be
24 something down in that range. These would be the
25 question you'd almost anticipate: Well, I heard

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1 that Vanderbilt talc may have asbestos in it. Is
2 that true? That's more or less the type of
3 question that we would commonly receive.
4 Q. Is that some kind of -- strike that.
5 Does Mr. Dvornek keep a file on those
6 matters, to your knowledge?
7 A. I don't know if he keeps a file on those
8 types of... they wouldn't be complaints, they'd
9 be questions.
10 Q. Did you ask him?
11 A. No.
12 Q. In preparation for your deposition?
13 A. No.
14 Q. Do you keep a file on those types of
15 matters?
16 A. I do.
17 Q. What is the file entitled?
18 A. The file is broken down by product type.
19 And so I have a file on New York state talc. I
20 have one on Kalen and so forth.
21 And for New York state talc, I have a file
22 by year. And if someone has asked me a question
23 about the talc and I respond in a letter
24 correspondence, I keep a copy of that
25 correspondence by year in that folder.

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1 Q. Did you look in that folder when you -- in
2 preparation for your deposition today?
3 A. No, I did not.
4 Q. Is there any reason why you didn't?
5 A. I was asked a couple weeks ago if
6 something along the lines, and I notice in here as
7 I was reading through, if there had been any
8 correspondence with certain companies. It was
9 like prior to 1990, I think it said here.
10 There was one company that I recognize,
11 but the correspondence that I had with it was post
12 1990. And that's -- that's all -- that's as far
13 as I looked.
14 Q. Well, let's go to No. 32. That says,
15 "Correspondence between Vanderbilt and
16 CertainTeed."
17 Do you see any 1990 there?
18 A. I'm sorry, which one was that?
19 Q. No. 32, page --
20 A. 5?
21 Q. Page 11.
22 A. Okay. I have the wrong set of...
23 Correspondence between Vanderbilt and Certain --
24 CertainTeed Corporation, that's not a name I
25 recognize at all.

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1 Q. And communications between Vanderbilt and
2 CertainTeed Corporation.
3 Do you see any -- any date modifier on
4 that?
5 A. No. But I also don't recognize the name
6 at all. And I --
7 Q. Let's go through these because you were
8 asked -- but you didn't look in the folder to see,
9 did you?
10 A. Well, I wouldn't -- that's a name I don't
11 recognize at all. I -- I --
12 Q. When was the last time you looked in that
13 folder?
14 A. Oh, if I file a -- a paper every now and
15 then, there are several folders, quite a few, and
16 they have the names of the companies on the top.
17 And they sort of stick out. And -- and
18 CertainTeed Corporation is not one that I recall
19 ever seeing.
20 Q. So how many folders are there? Is it a
21 file drawer?
22 A. It's -- it's a file drawer and it's by
23 year.
24 Q. So you did not specifically look for
25 correspondence, for example, with CertainTeed?

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1 You're just assuming it's not there because it
2 doesn't ring a bell; correct?
3 A. Right. I would have been the one who
4 responded.
5 Q. So with respect to Category 12,
6 "Correspondence between Vanderbilt and United
7 States" -- "and United Gypsum Company," is it
8 correct that you did not look in your file for
9 that information?
10 A. That's correct.
11 Q. Do you know the name United States Gypsum
12 Company?
13 A. Did it used to be called U.S. Gyp?
14 Q. U.S. Gyp, yes.
15 A. U.S. Gyp? Yes. We did have interface
16 with them. I'm not sure what -- what year.
17 Q. Did you produce that to your attorneys to
18 produce here?
19 A. No, I didn't.
20 Q. And why not?
21 A. I really wasn't asked to. Those files,
22 the correspondence to companies, as I understood
23 it, were all copied and -- by Hawkins & Parnell as
24 well.
25 Q. Your files -- your correspondence with

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1 customer files were copied by Hawkins & Parnell?
2 A. I believe they were, yes.
3 Q. Four or five years ago?
4 A. Yes.
5 Q. And so anything before -- anything in the
6 interim they wouldn't have; correct? Anything
7 from four or five years ago up to now?
8 A. That's -- that's correct. But I do know
9 that over the last certainly three or four years,
10 I have not had any correspondence with National
11 Gypsum.
12 Q. U.S. Gypsum?
13 A. U.S. Gypsum.
14 Q. So what do you believe in your -- is in
15 your file with respect to United States Gypsum
16 Company?
17 A. I would have to look.
18 Q. And as a meet and confer, I ask that you
19 do that and produce it to your attorneys.
20 Did you get your files back from Hawkins &
21 Parnell?
22 A. Yes. Yes. They're there.
23 Q. Now, what about Georgia-Pacific?
24 A. I don't believe I have correspondence with
25 Georgia-Pacific. But, again, I would have to look

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1 to say for -- with certainty.
2 Q. This 1975 correspondence with
3 Georgia-Pacific that's attached as Exhibit 6 that
4 you produced here today from Pamela Harvey,
5 specialties department, you don't have a file with
6 that in your customer file?
7 A. No, I don't. And I probably should have
8 made it clear that my customer file began in 1985
9 when I started, actually a couple years
10 thereafter.
11 So it only goes back to then-- it's not --
12 it's just a historical record of what I did.
13 Q. So if there were historical records, where
14 would they be?
15 A. We have -- I really -- I really am not --
16 not sure. I know that prior to my arriving at the
17 company, people kept records in different offices.
18 We tried to put all of the records together that
19 pertained to talc. In most cases, the records
20 were duplicative or, you know, repeats of the same
21 material.
22 At one point in the late '80s, I tried to
23 put together the -- what I viewed as the most
24 pertinent documents. And whatever else is there
25 or what I may not -- what I may not have viewed as

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1 being pertinent or of any consequence, I -- I
2 really haven't paid attention to.
3 Q. Well, where are those non-pertinent
4 documents?
5 A. We have some files in Norwalk that were
6 some of these residual files from different
7 offices. And all of those files were part of what
8 was copied by Hawkins & Parnell as well.
9 Q. Where are they kept?
10 A. They're kept in -- in Norwalk.
11 Q. Who is the custodian of those records?
12 A. Oh, I have keys to those file cabinets.
13 Q. And what are the file cabinets labeled?
14 A. "See John Kelse for entry." I have my
15 name on them.
16 Q. So these are the historical files for
17 R.T. Vanderbilt, essentially, that you don't use
18 in your everyday work for the corporation, more or
19 less?
20 A. Well, that's true. They -- most -- they
21 predate me.
22 Q. And -- and it's fair to say that in
23 preparation for your deposition as the custodian
24 of records, you did not review any of those
25 documents; correct?

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1 A. That would be correct.
2 MR. RADCLIFFE: Objection. Misstates
3 prior testimony.
4 BY MS. ABRAMS:
5 Q. Did I state that right?
6 A. That I did not review --
7 Q. Anything in those historical files in
8 Norwalk for this deposition.
9 A. That would be correct.
10 Q. And it is also fair to say that you do not
11 know one way or the other whether there are any
12 International Talc historical documents in that
13 collection; correct?
14 A. That would be correct.
15 Q. And you didn't look for those?
16 A. No. They wouldn't be pertinent to me.
17 Q. Did you -- in your files, do you -- strike
18 that.
19 Do you know if Pamela Harvey still works
20 for the R.T. Vanderbilt Company?
21 A. Not to my knowledge.
22 MR. RADCLIFFE: I think it's Morvay,
23 M-o-r-v-a-y.
24 MS. ABRAMS: That's why it says "Morvay"
25 in there. Okay.

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1 THE WITNESS: Yes.
2 BY MS. ABRAMS:
3 Q. Do you know where the historical documents
4 from the specialties department went to after that
5 department no longer existed?
6 A. No, I don't.
7 Q. Did you -- it's fair to say you did not
8 look in your files or in any historical files in
9 Norwalk for any documents with respect to asbestos
10 in talc supply to Georgia-Pacific or
11 correspondence with Georgia-Pacific or
12 communications with Vanderbilt and
13 Georgia-Pacific; correct?
14 A. That's correct.
15 Q. And other than this 1975 document, you
16 have no -- you didn't search for any other
17 information with respect to warnings provided to
18 Georgia-Pacific by Vanderbilt; correct?
19 A. That's correct.
20 Q. Now, do you have any documents in your
21 file of any kind that suggest that there was any
22 warning or communication between R.T. Vanderbilt
23 at any time and the United States Gypsum Company
24 with respect to the hazards of asbestos in
25 Mouldene talc?

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1 MR. RADCLIFFE: Object to the form.
2 Misstates prior testimony -- ignores prior
3 testimony.
4 THE WITNESS: All I have on Mouldene talc
5 I have in this folder.
6 MS. ABRAMS: Could you repeat the
7 question, please?
8 BY MS. ABRAMS:
9 Q. I want you to answer the question.
10 (Record read.)
11 MR. RADCLIFFE: Same objections.
12 THE WITNESS: I would have to answer that
13 I don't know for certain. I would have to look.
14 BY MS. ABRAMS:
15 Q. You didn't look?
16 A. I didn't look.
17 Q. And you didn't look in your file; correct?
18 A. That's right.
19 Q. And you didn't look in the historical
20 files; correct?
21 A. That's correct.
22 Q. How about National Gypsum, do you know
23 whether there were communications with National
24 Gypsum?
25 A. Yes.

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1 MR. RADCLIFFE: Same objections.
2 BY MS. ABRAMS:
3 Q. You may answer.
4 A. Yes. There were communications.
5 Q. What types of communications?
6 A. They were the -- the standard type of
7 communication. They were asking for confirmation
8 that there is no asbestos in -- in the talc being
9 supplied to them. And I provided them that
10 confirmation.
11 Q. Did you -- did you furnish that document
12 to your attorneys to supply here today?
13 A. No, I didn't. I don't know whether it was
14 supplied or not. I know it was copied.
15 Q. And that was by Hawkins & Parnell?
16 A. Right.
17 Q. Do you know when it was copied?
18 A. During their -- they were in a copying
19 frenzy four or five years ago.
20 Q. But you still have that document in your
21 file?
22 A. Yes. I believe it would be there.
23 Q. And what exactly was that document?
24 A. Well, I'd have to go back and look. As I
25 said, they're almost always, Do you have asbestos

Page 210

1 in your talc, or... it's usually that type of
2 question.
3 Q. Do you know what National Gypsum, what
4 type of talc they were purchasing?
5 A. Not off the top of my head. They may have
6 asked. You know, sometimes they'll say, Will you
7 purchase Nytal, whatever the grade is, could you
8 give me confirmation that there is no asbestos in
9 this material?
10 Q. And it's correct that you tell your
11 customer there's no asbestos in the material;
12 correct?
13 A. Yes.
14 Q. How about with respect to Kaiser Gypsum,
15 do you have communications in your files with
16 respect to Kaiser Gypsum?
17 MR. DAVIS: Davis. Objection.
18 Foundation. Speculation.
19 MS. ABRAMS: That was loud.
20 THE WITNESS: It was.
21 I would have to say I -- I don't know.
22 I'd have to go look. I don't believe so, but I
23 would have to check.
24 BY MS. ABRAMS:
25 Q. So you haven't checked about Kaiser

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1 Gypsum; correct?
2 A. That's correct.
3 Q. And you haven't checked the historical
4 files either; correct?
5 A. That's correct.
6 Q. So it's fair to say that with respect to
7 any correspondence or communication or potential
8 warnings supplied to Kaiser Gypsum, you just don't
9 know whether those exist or not; correct?
10 A. I wouldn't know any more than this one
11 episode with these five products. That's the only
12 one I'm aware of that we ever labeled, used an
13 asbestos label for. Other than that, I am not
14 aware of any other time, any other grade of talc
15 that had that label on it.
16 Q. And when you're talking about --
17 MR. DAVIS: Sorry. Davis. Move to strike
18 nonresponsive portions. Belated objection.
19 Foundation. Speculation.
20 BY MS. ABRAMS:
21 Q. And when you're talking about -- strike
22 that.
23 What you're referring to when you picked
24 up your file was a letter to Georgia-Pacific;
25 correct? That's all you have?

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1 A. On Mouldene, yes.
2 Q. You don't have any correspondence with you
3 or know of any with respect to Kaiser Gypsum;
4 correct?
5 A. No. Only what I have for Mouldene.
6 MR. DAVIS: Move to strike nonresponsive
7 portions. Belated objection. Foundation.
8 Speculation.
9 That's a double-negative answer, it sounds
10 like to me.
11 THE WITNESS: That's Georgia-Pacific.
12 MS. ABRAMS: Will you please repeat the
13 question and move to strike the last answer.
14 (Record read.)
15 THE WITNESS: That's correct.
16 BY MS. ABRAMS:
17 Q. And I think you -- you already mentioned,
18 with respect to any correspondence, communication,
19 warnings or information in relation to CertainTeed
20 with respect to asbestos in Vanderbilt talc, you
21 have -- you don't recall anything about
22 CertainTeed one way or the other?
23 A. CertainTeed? I'm sorry I don't
24 understand.
25 Q. CertainTeed Corporation.

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1 A. No. The name --
2 MR. RADCLIFFE: Objection. Misstates
3 prior testimony.
4 THE WITNESS: -- that's not familiar to me
5 at all.
6 BY MS. ABRAMS:
7 Q. And you didn't look in your records, but
8 you actually don't think that's there at all;
9 correct?
10 A. That would be correct.
11 Q. What about DAP, do you know anything -- do
12 you have any recollection of any correspondence,
13 communication, warnings or other discussions
14 regarding asbestos in talc between R.T. Vanderbilt
15 and DAP?
16 MR. WAY: Objection. Lacks foundation.
17 Calls for speculation.
18 MS. ABRAMS: That's DAP, Inc., D-A-P.
19 THE WITNESS: Yes. There has been that
20 correspondence.
21 BY MS. ABRAMS:
22 Q. Can you tell us about that from your
23 memory?
24 A. Same as all the other questions: Do you
25 have asbestos in your talc? That's essentially

Page 214

1 it.

2 Q. And you have documents in your files in

3 your office with respect to DAP?

4 A. Yes, I do.

5 Q. But you didn't produce those here today in

6 response to the deposition; correct?

7 A. Yes. They were all DAP correspondence, I

8 believe. I don't know if you had a timeline on

9 that, but I believe they're all post 1990. I

10 don't know if that applies or not.

11 Q. So you were -- Vanderbilt was supplying

12 talc to DAP after 1990; correct?

13 A. I have correspondence post 1990. I

14 don't -- I don't know what the history of sales

15 are with that.

16 Q. Well, at the time that you received the

17 correspondence, was DAP a customer of Vanderbilt,

18 to your knowledge?

19 A. I believe they were.

20 Q. Okay. And they were asking you in the

21 1990s or some time after 1990 regarding

22 information on whether there was asbestos in the

23 talc that they were purchasing; correct?

24 A. That's correct.

25 Q. And Vanderbilt told them no; correct?

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1 A. That's correct.

2 Q. And so obviously they weren't warning them

3 about any dangers of asbestos in the talc that

4 they were supplying to DAP after 1990; correct?

5 MR. RADCLIFFE: Objection. Assumes facts

6 not in evidence.

7 THE WITNESS: I don't know how to answer

8 that. There's no asbestos in the talc, so why

9 would they warn -- no, the answer is.

10 BY MS. ABRAMS:

11 Q. The answer is no; correct?

12 A. What was the question again? Make sure

13 that --

14 MS. ABRAMS: Read the question back,

15 please.

16 (Record read.)

17 MR. RADCLIFFE: Same objections.

18 BY MS. ABRAMS:

19 Q. That's right?

20 A. Yes. That's correct.

21 Q. And what about Dowman, do you recognize

22 that name?

23 A. I do not.

24 Q. Did you look in your files to see if there

25 was a Dowman file?

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1 A. I did not, no.

2 Q. Did you look in the historical files to

3 see if there was a Dowman file?

4 A. No, I did not.

5 Q. Is it your belief that the information in

6 your files regarding DAP was something that was

7 copied by the Hawkins & Parnell firm?

8 A. It is my belief, yes.

9 Q. So it wasn't something that you got in the

10 last four or five years?

11 A. No.

12 Q. You joined the R.T. Vanderbilt firm in

13 1985; correct?

14 A. Correct.

15 Q. You -- from your work at the Hartford, you

16 were aware that asbestos was a dangerous product;

17 correct?

18 A. A dangerous material, yes.

19 Q. And when you got to R.T. Vanderbilt, is it

20 correct that the Vanderbilt -- R.T. Vanderbilt

21 Company was also aware that asbestos was

22 hazardous?

23 A. I really can't speak for anybody at

24 Vanderbilt. I don't know what they were aware of

25 or not aware of.

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1 Q. Well, they were warning about asbestos in

2 1975; correct?

3 A. Yes.

4 Q. Do you know when they first became aware

5 of the hazards of asbestos?

6 A. Again, I don't know. I can only speak for

7 myself. I don't know who knew what, you know, at

8 Vanderbilt. I have indications from papers that

9 are in my file that there was an awareness of the

10 need to label if you had asbestos in your product.

11 That would be the extent of my understanding of

12 what people understood or didn't understand in

13 those days.

14 Q. Are there corporate employees that have

15 been at the R.T. Vanderbilt Company longer than

16 you have, Mr. Kelse?

17 A. The corporate employees who have been

18 there longer than I have?

19 Q. Yes.

20 A. Certainly.

21 Q. Do any of them work in your department?

22 A. No -- oh, I'm sorry. I have to correct

23 that. My secretary. She's been there two years

24 longer than -- than I have.

25 Q. Who would be the person that is most

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1 knowledgeable about when and how the R.T.
2 Vanderbilt Company first became aware of the
3 hazards of asbestos? Who would that be?
4 MR. RADCLIFFE: Objection. Calls for
5 speculation. Beyond the scope.
6 THE WITNESS: Yeah. I would have no idea.
7 BY MS. ABRAMS:
8 Q. Would you agree that you are not that
9 person?
10 A. Again, I would have no idea. My
11 understanding of what asbestos is, the risks of
12 asbestos I brought with me when I joined
13 R.T. Vanderbilt in 1985. Whatever the
14 understanding was among other employees of the
15 company prior to my arrival, I really don't know.
16 Q. As the R.T. Vanderbilt designated
17 corporate designee on this issue, when Vanderbilt
18 and how Vanderbilt first became aware of the
19 hazards of asbestos, what investigation did you
20 undertake to determine that information?
21 A. My primary interest was to determine
22 whether we had any asbestos in any of our products
23 in the first place.
24 And it -- it became clear to me, based on
25 the -- on the science base that I saw that it did

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1 not contain asbestos, so that was the end of that
2 concern.
3 MS. ABRAMS: Well, move to strike that as
4 nonresponsive.
5 BY MS. ABRAMS:
6 Q. Perhaps you didn't understand the
7 question.
8 A. Okay.
9 Q. You have been designated by
10 R.T. Vanderbilt as the person most knowledgeable
11 as to how the Vanderbilt Company and when the
12 Vanderbilt Company first became aware of the
13 hazards of asbestos, not of any hazards in your
14 own particular product but the hazards of
15 asbestos.
16 A. Oh, as -- as a risk in general? Then I
17 would have to say I don't know.
18 Q. And my question is, since you've been
19 designated as the person most qualified to answer
20 this question, what did you do pursuant to your
21 obligations as the person most qualified to
22 undertake an investigation on this issue of how
23 Vanderbilt first became aware of the hazards of
24 asbestos?
25 A. Again, I'm confused by the question. I'm

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1 not -- there is no asbestos in the talc product.
2 I have a record of some confusion over five grades
3 in -- between 1974.
4 I see an awareness of the possibility
5 of -- of trying to figure out what's being
6 regulated as asbestos in 1972. And there are
7 documents and records along that line. And that's
8 all that I have seen in the files that date back,
9 you know, prior to my being there.
10 So I have no idea what knowledge existed
11 in the company in regard to the risks of asbestos
12 in general.
13 Q. And it's fair to say that you -- for
14 preparation for this deposition, you did not
15 undertake an investigation to find out that
16 information?
17 MR. RADCLIFFE: Objection. Argumentative.
18 Misstates prior testimony.
19 BY MS. ABRAMS:
20 Q. Is that correct? You can have her read it
21 back, the court reporter read it back.
22 A. I didn't do it. I wouldn't know where to
23 begin with that.
24 Q. And you didn't seek any assistance in
25 answering that question about where to begin?

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1 A. Well, what would be the point? I mean, if
2 you don't have asbestos in your material, why
3 would I launch an investigation on when someone
4 first read about the asbestos. It just doesn't --
5 it's not pertinent.
6 Q. So is it fair that -- to say that because
7 you believed it isn't pertinent, you just didn't
8 do it?
9 MR. RADCLIFFE: Objection. Argumentative.
10 THE WITNESS: If we had asbestos in our
11 product, it would be -- you know, you definitely
12 would want to reflect that. When we believed we
13 did have asbestos in some grades, we were willing
14 and -- and quite prepared to label it as such.
15 But we're not going to discuss asbestos
16 or -- or label materials as asbestos-containing
17 when asbestos isn't an issue in those materials.
18 MS. ABRAMS: Move to strike as
19 nonresponsive.
20 BY MS. ABRAMS:
21 Q. I just want to be clear for the record
22 that as the custodian of records and the person
23 most knowledgeable about how Vanderbilt first
24 became aware of asbestos, you did not undertake
25 any investigation to find that out; correct?

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1 MR. RADCLIFFE: Objection. Argumentative.
2 Misstates prior testimony.
3 MS. ABRAMS: In preparation for this
4 deposition.
5 MR. RADCLIFFE: Objection. Argumentative.
6 Misstates prior testimony.
7 THE WITNESS: That's correct. Maybe you
8 can help me understand what this record business
9 is from a legal standpoint is all about. My job
10 is occupational health. Records that I keep are
11 pertinent to occupational health. It's not
12 pertinent to legal cases necessarily.
13 You know, I'm not there as a clerk to
14 file, you know, historical documents and every day
15 go check them. I'm there to understand what the
16 risks are.
17 And so the documents that are pertinent to
18 that understanding, I keep. That's -- that's what
19 I do.
20 So whatever your definition is, I mean, I
21 can't help that. I'm just telling you what I do.
22 MS. ABRAMS: Move to strike as
23 nonresponsive.
24 BY MS. ABRAMS:
25 Q. I'm just trying to be clear because I just

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1 want to have a clear record --
2 A. Sure.
3 Q. -- that the category that we asked
4 R.T. Vanderbilt to find out when they first became
5 aware of the hazards of asbestos, they've
6 designated you as the person most knowledgeable on
7 that issue.
8 And I just want to confirm that you may
9 not be the person most knowledgeable on that issue
10 and you didn't do anything to investigate to find
11 the answer to that; is that right?
12 MR. RADCLIFFE: Objection. Same
13 objections as before.
14 THE WITNESS: Yes. The answer would be
15 no, I did not.
16 BY MS. ABRAMS:
17 Q. You have also been designated to provide
18 information about what the corporation,
19 Vanderbilt, did in terms of telling its customers
20 how to handle its talc.
21 Did you do anything to investigate that
22 issue?
23 THE WITNESS: Could you read that back to
24 me, please.
25 (Record read.)

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1 MS. ABRAMS: And that's Category 47.
2 THE WITNESS: It's the responsibility of
3 my department to determine, you know, cautionary
4 warning, risk information that's put on product
5 labels and MSDS. In fact, we create the MSDSes.
6 So I wouldn't -- no, I didn't -- I didn't do a
7 search because it's my department's
8 responsibility.
9 BY MS. ABRAMS:
10 Q. And I just want to read to you the
11 definition of "handling of talc" because I want to
12 be clear what we're talking about.
13 A. Sure.
14 Q. It refers to how to "process, use and/or
15 handle talc and talc products to minimize dust and
16 exposure to dust."
17 So is that something that you're the most
18 knowledgeable person about?
19 A. Again, I would have to take tests to find
20 out more somebody else, but as an industrial
21 hygienist, part of my job is to understand what
22 the exposure levels of various substances are,
23 including dust in the mines, and then to also be
24 able to comment intelligently about how to
25 minimize that exposure through a variety of

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1 controls. And that's the typical industrial
2 hygiene type of work.
3 So, to that extent, to the extent that I
4 am the corporate industrial hygienist, to that
5 extent, I -- I would think that I would be more
6 knowledgeable about that type of an exercise than
7 anyone else in the company.
8 Q. Are you -- are the corporate industrial
9 hygiene files kept with you?
10 A. Yes.
11 Q. So you have all the records of all the --
12 that studies at all the plants over the years for
13 -- for R.T. Vanderbilt; correct?
14 A. Which type of records?
15 Q. Your corporate records, your inhouse
16 studies of -- dust studies at the plant.
17 A. Risk-related.
18 Q. Well, any dust studies that are done at
19 the plant.
20 A. Oh, dust studies, yes.
21 Q. And is it also correct that if outside
22 people do dust studies at the plant and there are
23 documents with respect to those, those are housed
24 in your department?
25 A. Yes.

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1 Q. Do you have any information in your files
2 regarding any dust studies that were done at the
3 International Talc facility?
4 MR. RADCLIFFE: Objection. Beyond the
5 scope.
6 THE WITNESS: I'm going to say no.
7 BY MS. ABRAMS:
8 Q. Do you know if they exist?
9 MR. RADCLIFFE: Same objection.
10 THE WITNESS: The reason I hesitated is
11 because you're saying health department, and this
12 is in -- this is in published papers. Took air
13 samples at various area mines. Whether or not
14 they took them at International Talc, I don't know
15 for certain.
16 BY MS. ABRAMS:
17 Q. Do you know -- do you have reports in your
18 files of those air samples?
19 MR. RADCLIFFE: Objection. Beyond the
20 scope.
21 THE WITNESS: No, I don't. I don't.
22 BY MS. ABRAMS:
23 Q. Is there a particular paper you're
24 referring to? You said "in published papers."
25 A. The one I'm thinking of is a study by --

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1 it was actually written by Kleinfeld.
2 Q. Do you know if there are any historical
3 International Talc files in Norwalk that might
4 have underlying data from the Kleinfeld studies?
5 MR. RADCLIFFE: Objection. Beyond the
6 scope.
7 THE WITNESS: There wouldn't be any
8 underlying data from Kleinfeld studies. There was
9 no link there.
10 BY MS. ABRAMS:
11 Q. Do you have any of the New York State
12 Health Department data?
13 A. No, I don't.
14 Q. Do you know where that might be found?
15 MR. RADCLIFFE: Objection. Beyond the
16 scope.
17 THE WITNESS: No, I don't.
18 BY MS. ABRAMS:
19 Q. Have you seen reference in various
20 documents that the dust levels at International
21 Talc mines were higher than at the Vanderbilt
22 mines?
23 A. The document that I --
24 MR. RADCLIFFE: Beyond the scope.
25 THE WITNESS: The document that I

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1 mentioned, Kleinfeld, talks about dust levels at
2 other area mines. I don't know if it's specific
3 to International.
4 BY MS. ABRAMS:
5 Q. Other than what's in Kleinfeld, is there
6 any independent information in the files of
7 R.T. Vanderbilt that you know of that would
8 corroborate that statement?
9 A. I'm not --
10 MR. RADCLIFFE: Assumes facts not in
11 evidence. Argumentative.
12 THE WITNESS: I'm not aware of any.
13 BY MS. ABRAMS:
14 Q. And it's fair to say you haven't looked in
15 the Norwalk files to see if anything exists there;
16 correct?
17 A. That's correct.
18 Q. Now, what -- when did R.T. Vanderbilt --
19 strike that.
20 Has R.T. Vanderbilt ever informed
21 customers that they should take precautions when
22 handling Vanderbilt talc products?
23 MR. RADCLIFFE: Objection. Misstates
24 prior testimony. Argumentative.
25 THE WITNESS: Would you just read that

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1 back to me.
2 (Record read.)
3 THE WITNESS: My records indicate that the
4 material safety data sheets that date back into
5 the mid '70s contained a general dust warning,
6 minimize dust, that sort of thing.
7 BY MS. ABRAMS:
8 Q. What kind of precautions did Vanderbilt
9 take in its own mine and mill to minimize dust?
10 A. That one -- we're very proud of that.
11 The -- the mill and the mine opened in 1948. And
12 it was actually considered one of the best
13 examples of dust control, well dust-controlled
14 operation. And by that I mean the mining that we
15 did, the underground mining was done only with wet
16 drilling.
17 Prior to that, other area mines either all
18 or mostly used dry drilling which was a huge
19 difference in dust generation in -- in the mines
20 and just gigantic reduction in dust just with that
21 one technology improvement.
22 In the mill --
23 Q. Excuse me, do you know whether
24 International Talc used wet or dry drilling?
25 MR. RADCLIFFE: Objection. Beyond the

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1 scope.
2 THE WITNESS: I've been told they
3 predominantly used dry drilling.
4 BY MS. ABRAMS:
5 Q. Was that in the underground mine?
6 A. I don't know.
7 Q. Who told you that?
8 MR. RADCLIFFE: Objection. Beyond the
9 scope.
10 THE WITNESS: Dana Putman.
11 BY MS. ABRAMS:
12 Q. Okay. Continue, please.
13 A. The mill was constructed purposely very
14 carefully to minimize dust generation. Certainly
15 in the late '40s it had certainly been considered
16 state of the art.
17 And examples of that would be, they have
18 what they call elevator conveyance systems which
19 are, if you can imagine them, ducts in which the
20 ore is transferred, and these ducts are closed and
21 there is a positive pressure, air pressure kept in
22 the mill so that the -- the air would actually
23 move into the material conveyance systems rather
24 than dust, you know, flowing out of the conveyance
25 systems because of the pressure differentials.

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1 They also used local exhaust systems to
2 a -- a much greater extent I understand than other
3 area mines, particularly at the packing stations,
4 things of that nature.
5 So this combination of -- of controls,
6 they also even began in the '50s with isolation
7 and control booths, which over a period of time
8 they expanded, which kept operators, you know, in
9 a closed booth out of the general mill area. And
10 those types of improvements occurred over, you
11 know, a span of time.
12 But initially, it was built with a
13 positive pressure system, the closed or conveyance
14 systems and some local ventilation systems that
15 were very, very effective.
16 Q. Apparently respirators were available at
17 the mine in the 1960s?
18 A. Yes. And they were available in the mine
19 prior to that.
20 Q. And they became obligatory at some point?
21 A. They certainly did. When I joined the
22 company, they were -- they were obligatory at that
23 time which is 1985. I'm not sure how much earlier
24 that became the rule. Obviously at some point
25 earlier. Exactly when that was, I don't know.

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1 Q. And at that time, were they canister
2 respirators?
3 A. In 1985, they were -- there were a few
4 canister respirators left. Then a few years
5 later, around 1987, everyone used what's known as
6 Racal respirators, a positive pressure respirator.
7 It consists of a hardhat with an air mover in the
8 back, a filter at the top of the helmet, and then
9 a plastic face shield.
10 What this does is the motor pulls the air
11 in the back of the helmet, pushes it through the
12 filter to filter out particulate, and blows the
13 clean air across the workers' face and out.
14 This is run by a battery, a nickel-cadmium
15 battery, that's charged every day. And these were
16 provided to every single talc worker.
17 Q. Despite all of those precautions, isn't it
18 correct that workers at the R.T. Vanderbilt
19 Company contracted respiratory illnesses including
20 talcosis, lung cancer and mesothelioma?
21 MR. RADCLIFFE: Objection. Argumentative.
22 Assumes facts not in evidence.
23 BY MS. ABRAMS:
24 Q. Is that correct?
25 A. Again, I have difficulty -- all right.

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1 I'll answer that as best I can.
2 Q. That's a "yes" or "no" question.
3 A. Well, it -- it assumes that people
4 contracted lung cancer, mesothelioma as a result
5 of exposure to the talc. And that's not what my
6 science base tells me.
7 Are there people who worked there who
8 had died of lung cancer or died of mesothelioma or
9 at least alleged to have died of mesothelioma?
10 Yes.
11 Are there individuals that worked at that
12 talc mine who had talcosis? Yes.
13 I would say that the anomaly in the
14 respiratory disease, the talcosis, you would --
15 you would -- that would be something that would
16 occur with overexposure to talc or any -- you
17 know, or -- any mineral dust poses a risk of that
18 sort.
19 If we had workers who came from other
20 mines, other area mines, they would have had
21 extremely elevated exposures to talc, and later on
22 you find that they show some interstitial fibrosis
23 or some talcosis, it doesn't necessarily mean that
24 that talcosis was cause by exposure to Vanderbilt
25 talc.

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1 It doesn't tell you one way or the other,
2 although my current data suggests, because as time
3 has gone on, we have now workers who only had
4 exposure to Vanderbilt talc and my medical
5 surveillance data, as indicated in one of these
6 files by Dr. Boehcleck, shows that we had very,
7 very, very little in the way of dust disease in
8 that group.
9 MS. ABRAMS: Move to strike as
10 nonresponsive.
11 Could you read the question back.
12 BY MS. ABRAMS:
13 Q. And ask you to answer the question as
14 stated.
15 (Record read.)
16 MR. RADCLIFFE: Same objections. Asked
17 and answered.
18 BY MS. ABRAMS:
19 Q. Is that true? That's a "yes" or "no"
20 question.
21 A. That they contracted those diseases?
22 MR. RADCLIFFE: It's not a "yes" or "no"
23 question if you don't think it is.
24 THE WITNESS: I really don't think it is.
25 BY MS. ABRAMS:

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1 Q. You don't have an answer to that question?
2 You can't say yes or no?
3 MR. RADCLIFFE: It's been asked and
4 answered.
5 THE WITNESS: I would say yes to some of
6 the nonmalignant respiratory disease or talcosis.
7 I would say no to lung cancer and mesothelioma.
8 BY MS. ABRAMS:
9 Q. How many Workers' Compensation claims have
10 you particularly seen and know of, mesothelioma
11 claims made by Vanderbilt workers?
12 A. There were -- there are four workmen's
13 comp claims for mesothelioma -- well, four
14 individuals that worked for Vanderbilt at one
15 point or another.
16 Q. How do you know that?
17 A. Well, I have those records.
18 Q. You have all the comp claims?
19 MR. RADCLIFFE: Objection to the form.
20 Assumes facts not in evidence.
21 THE WITNESS: I have -- I try to maintain
22 a record of compensation claims, as you would
23 expect I would, that are linked to occupational
24 disease at any plant. So for our mines, I would
25 have records that claim or allege pulmonary risk,

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1 which would include talcosis or a claim of lung
2 cancer linked to the talc, that type of comp
3 record I -- I would have.
4 BY MS. ABRAMS:
5 Q. Is there a --
6 MR. RADCLIFFE: Excuse me. Sorry to
7 interrupt. But it's 4:45, and given our
8 discussions on scheduling and agreement to
9 continue at a later date, and also given the fact
10 that it's 7:45 East Coast time for Mr. Kelse --
11 THE WITNESS: I didn't even change my
12 watch.
13 MR. RADCLIFFE: We're going to conclude at
14 5. So I wanted to give you...
15 MS. ABRAMS: I thought we were going to
16 midnight.
17 MR. RADCLIFFE: No.
18 MS. ABRAMS: Changed your mind, huh?
19 MR. RADCLIFFE: I said we couldn't go to
20 midnight. But I think --
21 MS. ABRAMS: Do you want to read the
22 question back, so I can remember where I was.
23 (Record read.)
24 BY MS. ABRAMS:
25 Q. Do you have all the comp claims? Is there

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1 a procedure within RT Vanderbilt Company where you
2 formally receive all Workers' Compensation claims
3 for any occupational injuries?
4 MR. RADCLIFFE: Objection. Assumes facts
5 not in evidence.
6 THE WITNESS: With the qualifier for
7 occupational injuries, I would say yes.
8 BY MS. ABRAMS:
9 Q. Well, what's the qualifier?
10 A. Because I don't receive all the
11 compensation records.
12 Q. Which ones do you receive?
13 A. Well, I've expressly asked to see all
14 compensation records that are linked to
15 occupational disease.
16 Q. Who have you asked?
17 A. I've instructed the plants to send those
18 records to me.
19 Q. So the plants actually receive the claims?
20 A. Yes. That's a typical procedure.
21 Q. How far back do your files go?
22 A. I did a review of the comp files for
23 pulmonary claims relative to Gouverneur talc. My
24 files go back to 1972.
25 Q. And it's your testimony that there were

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1 only four Workers' Comp claims against the R.T.
2 Vanderbilt Company for allegations of mesothelioma
3 since 1972?
4 A. That's what my records show.
5 Q. And -- and you know there were more
6 mesotheliomas that were recorded; correct? There
7 were more than four.
8 MR. RADCLIFFE: Object to the form.
9 Assumes facts not in evidence. Argumentative.
10 BY MS. ABRAMS:
11 Q. They may or may not have been Workers'
12 Comp claims.
13 A. There were others that were not
14 mesothelioma -- not comp claims. Two were
15 reported in the mortality studies.
16 Q. So there were six workers -- six
17 R.T. Vanderbilt workers alleged mesothelioma from
18 working at the R.T. Vanderbilt mines; correct?
19 MR. RADCLIFFE: Object to the form.
20 Assumes facts not in evidence. Argumentative.
21 THE WITNESS: Yeah. There were six
22 mesothelioma cases -- or alleged mesothelioma
23 cases among people whoever worked at the mine.
24 BY MS. ABRAMS:
25 Q. And you have those -- information about

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1 those six workers in your files?
2 A. Yes, I do.
3 Q. Do you know where they worked?
4 A. Yes, I do.
5 Q. Do you know how long they worked for
6 R.T. Vanderbilt?
7 A. Yes.
8 Q. Do you know their jobs?
9 A. Yes.
10 Q. Do you know whether any International Talc
11 workers also filed Workers' Compensation claims?
12 A. I do not.
13 MR. RADCLIFFE: Objection. Beyond the
14 scope.
15 BY MS. ABRAMS:
16 Q. Did you produce to the Hawkins & Parnell
17 law firm all the Workers' Compensation claim
18 information in your file?
19 A. All workmen compensation?
20 Q. With respect to occupational disease
21 alleged against Vanderbilt.
22 A. I provided a list of all -- all pulmonary
23 claims that dated back to 1972.
24 Q. How many talcosis claims are there?
25 A. I looked at them -- dating back to 1972, I

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1 think there was a total of -- it was close to
2 58 -- 1972 to the present -- 58 pulmonary claims,
3 the vast majority of which used the term
4 "talcosis" or exposure to dust was the description
5 on the claim forms.
6 Q. Do any of them allege asbestosis?
7 A. There were three out of that -- that group
8 that -- where the term "asbestos" was placed on
9 the comp form.
10 Q. Asbestosis? You said "asbestos." I asked
11 you about asbestosis?
12 A. Asbestosis, yes.
13 Q. And what about pleural plaques? Do any of
14 them allege pleural plaque?
15 A. Pleural plaque is -- is referred to in --
16 in a number of cases, but...
17 Q. Do you know how many?
18 A. No, I -- I don't.
19 Q. What about lung cancer, how many alleged
20 lung cancer?
21 A. From my review of the file indicated there
22 were two claims filed for lung cancer.
23 Q. And did those claims for lung cancer
24 allege lung cancer and asbestosis or lung cancer
25 and pleural plaque, if you recall?

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1 A. One did allege asbestos exposure. The
2 other one, and I quickly looked at these, did not.
3 Q. Let me just clarify before you answer.
4 What I asked you was: Did the claims
5 allege asbestosis or pleural plaque? Not asbestos
6 exposure.
7 A. They're included -- they're included in
8 that description.
9 Q. Asbestosis and pleural plaques?
10 A. In one of the two lung cancer cases that
11 were filed.
12 Q. And these -- are all these claims in the
13 possession of the Hawkins & Parnell law firm, to
14 your knowledge?
15 A. They have the master list that I described
16 to you. I gave them that -- that summary. And
17 they have --
18 Q. Do they have the claims?
19 A. Well, I don't know what you mean by --
20 Q. Do you have the actual claim forms and
21 everything, all the supporting documentation?
22 A. As much as I could get my hands on, yes.
23 Q. And did you produce those to the Hawkins &
24 Parnell law firm?
25 A. On the claims for mesothelioma, I did.

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1 Q. Now, you mentioned that you've given six
2 depositions or more; correct?
3 A. Yes.
4 Q. And in all six of those cases, were all of
5 those people or workers or their family members
6 alleging -- were those mesothelioma claims?
7 Cases -- third party cases?
8 A. Cases?
9 Q. Correct. Those were -- those were civil
10 cases; correct?
11 A. Yes.
12 Q. And were all those cases mesothelioma
13 cases?
14 A. I believe they were. If they weren't,
15 they were mostly -- just about all, but maybe one.
16 Q. Those are all workers who allege exposure
17 to Vanderbilt talc and are claiming that they got
18 mesothelioma as a result of that; correct?
19 A. Yes.
20 Q. And do you know how many other cases of
21 alleged mesotheliomas are currently pending or
22 have preceded this one with respect to exposure to
23 Vanderbilt talc for mesothelioma?
24 MR. RADCLIFFE: When you say "cases," are
25 you talking about a legal case or just an

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1 instance?
2 MS. ABRAMS: Strike my question.
3 Let me ask a better question.
4 BY MS. ABRAMS:
5 Q. Do you know how many either pending or
6 resolved cases, legal cases, exist where there has
7 been an allegation of exposure to Vanderbilt talc
8 contributing to the development of mesothelioma?
9 MR. RADCLIFFE: Objection. Beyond the
10 scope.
11 THE WITNESS: I don't know how many there
12 are. But that's generally what the cases are.
13 Whatever they are.
14 BY MS. ABRAMS:
15 Q. Do you know of other than the six that
16 you've been involved in?
17 A. Oh, I -- I know there are -- there are
18 others. I don't know exactly the names of them, I
19 haven't memorized them or --
20 Q. Do you get --
21 A. -- been involved in them.
22 Q. Do you get information on cases filed
23 against the Vanderbilt -- R.T. Vanderbilt Company
24 alleging mesothelioma, civil cases routinely that
25 you keep in your files?

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1 A. I don't keep those records. If they're
2 legal notices or claims, they go to someone else.
3 Q. Who do they go to?
4 A. You can ask Paul Vanderbilt that tomorrow.
5 He will give you a better answer. I believe it's
6 him, but you need to ask him.
7 Q. Do you get copied on those?
8 A. Generally, if -- if it's a claim of
9 something that looks like -- that they feel they
10 would like comment from me on, they -- they will.
11 But it's not something that's routine, that I'm
12 just automatically copied in.
13 Q. Do you know of other cases, either legal
14 cases or cases of individuals who have alleged
15 that they have mesothelioma from working with
16 Mouldene talc?
17 MR. RADCLIFFE: Object to the form. Vague
18 and ambiguous.
19 BY MS. ABRAMS:
20 Q. Other than this one.
21 A. I really can't -- can't speak to that. I
22 don't know what the case, you know, record is,
23 or...
24 Q. I'm asking you from your memory, do you
25 know of any?

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1 A. Oh, from my memory?
2 Other than, you know, the cases that I've
3 been directly involved in, I really don't know
4 what the status is.
5 Q. Well, did any of those involve Mouldene
6 talc?
7 A. I don't know. I don't -- I don't recall
8 if any -- any of those that I've been involved in,
9 I don't believe any of them did.
10 Q. With respect to category -- if we're going
11 to quit at 5, I'm going to leave out for today a
12 few of these categories.
13 So let's just go down to correspondence
14 between Vanderbilt and Johns-Manville. Do you
15 have any correspondence between Vanderbilt and
16 Johns-Manville corporation?
17 A. There is some old correspondence, and I
18 would defer to Dr. Thompson. He was involved
19 in -- in an interchange with Johns-Manville. I
20 don't know exact date of that. But again, it
21 predates me.
22 Q. So would Slim Thompson be the person most
23 knowledgeable for that category of information?
24 MR. RADCLIFFE: Object. Calls for
25 speculation.

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1 THE WITNESS: Well, I believe so.
2 BY MS. ABRAMS:
3 Q. He would be more knowledgeable than you on
4 that issue?
5 A. Yes, he would.
6 Q. And you don't maintain those files?
7 A. They may be in that general archival, you
8 know, group of files that we discussed earlier
9 that were not -- you know, would not be something
10 that would be of great interest to me.
11 Q. The ones in Norwalk?
12 A. Yeah.
13 Q. How about in your correspondence files
14 that you mentioned before, do you think there are
15 any Johns-Manville files?
16 A. Well, in the correspondence file, I think,
17 as I indicated, it only really goes back to the --
18 you know, the mid '80s on, that I kept. Those are
19 files to remind me of what I was involved in.
20 Q. So do you know whether you have Johns -- a
21 Johns-Manville file or not, do you recall?
22 A. I don't -- I don't have a file labeled
23 "Johns-Manville." I don't know that I have any
24 documents from Johns-Manville.
25 MS. ABRAMS: What time is it?

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1 MR. RADCLIFFE: It's 4:58. Do you have
2 two minutes? I do have to clean up something so I
3 can potentially avoid a motion to compel.
4 MS. ABRAMS: You don't get to do that.
5 You don't get to ask him questions until I get to
6 finish my deposition. And I have more to do. But
7 we can go off the record and we can clean up the
8 next time we get together.
9 MR. RADCLIFFE: Well, if you're going to
10 file a motion to compel off of this record, I'm
11 going to ask questions. If you're not going to
12 file a motion to compel off this record, I'll
13 wait.
14 MS. ABRAMS: How many questions do you
15 have?
16 MR. RADCLIFFE: Depends on his answers.
17 But three, four.
18 MS. ABRAMS: I will allow you to question
19 the witness because I am going to ask for
20 information off this record.
21 EXAMINATION BY MR. RADCLIFFE:
22 Q. Mr. Kelse, you were asked questions
23 about -- earlier about when R.T. Vanderbilt first
24 became aware of the hazards of exposure to
25 asbestos; do you remember those questions?

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1 A. I remember being asked that question.
2 Q. Do you know whether RT Vanderbilt was
3 aware of the hazards of exposure as of the time of
4 OSHA standard in 1972?
5 MS. ABRAMS: Lacks foundation. Calls for
6 speculation based on his testimony.
7 THE WITNESS: They were aware that such a
8 standard was produced and they wondered and they
9 had some questions as to whether or not it
10 pertained to Vanderbilt. There are documents that
11 suggest it was some confusion about that.
12 BY MR. RADCLIFFE:
13 Q. Based on all of your work at Vanderbilt
14 since 1985, have you been able to determine how
15 much before 1972, if at all, Vanderbilt became
16 aware of the hazards of exposure to asbestos?
17 A. I -- I cannot tell.
18 Q. Is that something that you've looked into
19 in the past?
20 A. I have. You know, I found papers that
21 are -- that -- or articles that maybe predate
22 1972.
23 But I have no idea when they were
24 obtained, by who. They could have been obtained
25 in 1974 or '75. I don't know.

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1 Q. In a case -- in the case -- strike that.
2 In a situation where you've done
3 investigation and research in the past, do you
4 find it necessary to repeat that investigation and
5 research for -- in response to a deposition
6 notice?
7 MS. ABRAMS: Objection. Calls for a legal
8 conclusion. And it's vague and ambiguous. Lacks
9 foundation. Calls for speculation. And it's
10 unintelligible.
11 THE WITNESS: Well, I think, as I tried to
12 say before, my job is to understand the risks of
13 our products, and understanding the risks of our
14 products means understanding what the best
15 available data and best science tells us about
16 those products.
17 I am not particularly focused or tuned in
18 to 30, 40-year-old documents that reflect
19 confusion. It's just not something that is of
20 interest. It's a waste of time.
21 What I'm interested in is what do we know
22 now, what is the -- the strength and credibility
23 of the information that currently exists. That's
24 what I'm interested in.
25 MS. ABRAMS: Are you done?

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1 MR. RADCLIFFE: I guess so. I'll leave it
2 at that.
3 MS. ABRAMS: I have a follow-up.
4 EXAMINATION BY MS. ABRAMS:
5 Q. You mentioned, with respect to the '72
6 standards and becoming aware of OSHA, they
7 wondered whether it pertained to R.T. Vanderbilt
8 and there are documents on this.
9 What documents are those and where are
10 they?
11 A. There are some -- a couple of -- one or
12 two internal memos that were written by employees
13 that had -- had gone to Washington for, I believe
14 it was, a synopsis of the new -- or the first
15 federal standard on asbestos which was promulgated
16 by OSHA in 1972.
17 And they returned to the company and
18 reported they didn't know whether or not this new
19 standard would apply to the talc that was mined in
20 upstate New York because the standards
21 specifically included the mineral tremolite.
22 And there was no question that the
23 industrial talc that was mined in upstate New York
24 contained a very high level, high percentage of
25 tremolite. In fact, it was the most prevalent

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1 mineral in the product, more prevalent even than
2 talc, the talc itself.
3 Q. Well, who were those people?
4 A. I believe the -- it was a fellow by the
5 name of Bacen, B-a-c-e-n. I can't remember his
6 first name.
7 Q. Okay. And you said there -- he wrote some
8 internal memos. Where are those kept?
9 A. I do have copies of those. I know they
10 were copied by Hawkins & Parnell. Whether they
11 supplied them to you in this -- in your discovery
12 or not, I -- I don't know.
13 Q. Can you give me some more information on
14 what that document might look like so we could
15 look for it?
16 A. They were similar internal memos as the
17 one that we've discussed that -- that Dr. Thompson
18 wrote, you know, to Paul Vanderbilt explaining his
19 analysis.
20 Q. Was it something on letterhead, or was it
21 something that said "memo"?
22 A. Yeah, it would -- it said "memo."
23 Q. And you think those were written around
24 1972?
25 A. Yes.

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1 MS. ABRAMS: And if that hasn't been
2 produced, I'd ask that you produce it forthwith.
3 BY MS. ABRAMS:
4 Q. And you also said you found some articles
5 that predate 1972 that could have been obtained
6 before or after that date. Where are those
7 articles?
8 A. They would be in -- in my file.
9 Q. That file that you gave to Hawkins &
10 Parnell?
11 A. Yeah. They -- they would have been
12 copied.
13 Q. I'd ask that you look and see what those
14 articles are and produce them if they haven't been
15 produced and give those to your attorney; okay?
16 A. Um-hum.
17 MS. ABRAMS: Are you ready to go off the
18 record?
19 MR. RADCLIFFE: I'm ready.
20 MS. ABRAMS: Okay. Let's go off the
21 record and we will continue the deposition after
22 meeting and conferring as to when that will take
23 place.
24 THE VIDEOGRAPHER: This adjourns the
25 deposition for the day of John Kelse.

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1 The present time is 5:04 p.m.
2 The electronic record contains three
3 videotapes today, August 10th, 2009. The
4 originals are to be retained by Televideo
5 Production Services located at 3655 Grand Avenue,
6 Oakland, California 94610. The phone number is
7 (510) 893-0555. Copies are available to
8 interested parties unless otherwise stipulated.
9 We are now off the record.
10 (Off the video record.)
11 MS. ABRAMS: So we're back on the written
12 record in the Kelse deposition for the sole
13 purpose of marking additional exhibits to attach
14 to the deposition subject to Mr. Kelse reviewing
15 them to determine -- or make sure that these are
16 the records that he produced at his deposition
17 yesterday.
18 And he'll have an opportunity to look at
19 these and just make sure they're all complete.
20 So exhibit next in order, which I can't
21 remember what the number is, so he'll let us
22 know --
23 THE REPORTER: Exhibit 7.
24 MS. ABRAMS: Exhibit 7, is going to be the
25 entire Mouldene file, Exhibit 8 is going to be the

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1 mineral reference file, and Exhibit 9 is going to
 2 be the health reference file.
 3 MR. RADCLIFFE: I have no objection to
 4 attaching those exhibits subject to, as you say,
 5 Mr. Kelse being able to review the documents and
 6 confirm they are the documents that he brought
 7 with him to the deposition.
 8 MS. ABRAMS: Okay. And so we will leave
 9 those with you, the court reporter. Thank you.
 10
 11 (Plaintiff's Exhibit Nos. 7-9 marked for
 12 identification.)
 13
 14 (Whereupon, the deposition was adjourned
 15 for the day at 5:06 p.m.)
 16
 17
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CERTIFICATE OF REPORTER

1
 2
 3
 4
 5 I, KATHERINE J. KIRBY, do hereby certify
 6 that said proceedings were taken in shorthand by
 7 me, a Certified Shorthand Reporter of the State of
 8 California, and were thereafter transcribed by
 9 computer-aided transcription, and that the
 10 foregoing transcript constitutes a full, true and
 11 correct report of said proceedings which took
 12 place.
 13 That I am a disinterested person in the
 14 said action.
 15 IN WITNESS WHEREOF, I have hereunder set my
 16 hand this 24th day of August 2009.
 17
 18
 19
 20
 21
 22
 23
 24
 25

 KATHERINE J. KIRBY
 CSR No. 6418

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1 SIGNATURE OF DEPONENT
 2
 3 I, the undersigned, JOHN KELSE, do hereby
 4 certify that I have read the foregoing deposition
 5 and find it to be a true and accurate
 6 transcription of my testimony, with the following
 7 corrections, if any:
 8
 9 PAGE LINE CHANGE
 10 _____
 11 _____
 12 _____
 13 _____
 14 _____
 15 _____
 16 _____
 17 _____
 18 _____
 19 _____
 20 _____
 21 _____
 22 _____
 23 _____
 24 _____
 25

 JOHN KELSE, Date

 KATHERINE J. KIRBY
 CSR No. 6418

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