

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF THE TRIAL COURT

Middlesex County

Superior Court

JOHN S. SUNDAY and

BARBARA L. SUNDAY,

Plaintiffs,

Civil Action

vs.

No. 08-0689

ADVOCATE MINES, LTD., et al.,

Defendants.

DEPOSITION OF MARY H. FINN, PhD, a

witness, taken on behalf of the Plaintiffs,

pursuant to Notice, on the 18th day of May, 2010,

at the Marriott-Kansas City Airport, 775 Brasilia

Avenue, Conference Room No. 152, Kansas City,

Missouri, before

BARBARA A. MITCHELL, CCR NO. 0569,

for Eppley Court Reporting, LLC, a Registered

Professional Reporter, Certified in Missouri and

Kansas.

APPEARANCES

.

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(Original exhibits returned to Waters & Kraus;
copies distributed to counsel)

1 (The deposition commenced at 2:05
2 p.m.)

3 MARY H. FINN, PhD,
4 a witness, being first duly sworn, testified under
5 oath as follows:

6 EXAMINATION

7 BY MR. HART:

8 Q. Would you state your full name, please.

9 A. Mary Finn.

10 Q. I am Tom Hart. I'm the attorney for
11 the Sunday family that will be taking your
12 deposition because I understand you've been
13 designated as an expert in this case. Do you
14 understand that?

15 A. Yes.

16 Q. Can you tell me besides the court
17 reporter who is with you at the moment?

18 A. Vince Gunter is here and the court
19 reporter.

20 Q. Okay. Anyone else?

21 A. That's it.

22 Q. As I understand it, you're appearing on
23 behalf of Ingersoll-Rand; is that correct?

24 A. Yes.

25 Q. Are you appearing on behalf of anyone

1 else?

2 A. No.

3 Q. If Ingersoll-Rand is not a defendant at
4 the time of trial of this case, will I be correct
5 in assuming that you will not appear and testify?

6 A. That's correct.

7 Q. Okay. I've been provided with an
8 Exposure and Risk Evaluation dated April 29th,
9 2010, concerning John Sunday that is on Finn
10 Consulting Services letterhead. Is that what you
11 prepared in this case?

12 A. Yes, that's the report I prepared for
13 this.

14 Q. And it's 37-pages long, correct?

15 A. Yes.

16 Q. Did you have -- I assume you have a
17 copy in front of you?

18 A. Yes.

19 MR. HART: Okay. I'll ask the
20 court reporter if she will mark that as Exhibit 1
21 to this, please.

22 (Deposition Exhibit No. 1 was
23 marked for identification.)

24 A. Okay.

25 Q. (By Mr. Hart) What other documents do

1 you have with you relative to this matter?

2 A. I brought with me the case materials
3 that I reviewed which are the materials that are
4 listed on page 2 of my report.

5 Q. And the only thing I see listed are
6 certain volumes of depositions and answers to one
7 set of interrogatories.

8 A. Correct. And then I have many of the
9 articles cited. I did not bring textbooks or
10 huge, voluminous articles, but I have many of the
11 articles cited in the reference section of my
12 report.

13 Q. Okay. Are any of the articles that you
14 have with you ones that are not cited in your
15 reference section?

16 A. No. And then I also have with me
17 letters of transmittal that accompanied the
18 materials that I received.

19 Q. All right. How many letters are there?

20 A. There are two and they're quite short.

21 MR. HART: Okay. Why don't we,
22 just for completeness, attach those as exhibits
23 also, please.

24 (Deposition Exhibits No. 2 and 3
25 were marked for identification.)

1 A. Okay.

2 Q. (By Mr. Hart) Did you bring a CV or
3 any resume?

4 A. Yes, I did.

5 Q. Okay. I've seen one that's one page.
6 It's titled "Resume."

7 A. Correct.

8 MR. HART: Can we mark that is an
9 exhibit, please. And would you let me know what
10 number that is, please.

11 THE REPORTER: That's No. 4.

12 MR. HART: Okay. Thank you.

13 (Deposition Exhibit No. 4 was
14 marked for identification.)

15 A. Okay.

16 Q. (By Mr. Hart) The resume I have seen
17 does not list your employers over the years. Does
18 Exhibit 4 contain such a listing?

19 A. No. It just gives a general
20 description.

21 Q. Okay. Can you give me verbally then,
22 please, a summary of your work history beginning
23 with -- I believe you have some experience, as you
24 stated in your report, doing some medical
25 research?

1 A. Yes. When I was in undergrad school, I
2 did some medical research at Medical Research
3 Institute in Melbourne, Florida. And following
4 that, then my first professional industrial
5 hygiene job was with the Iowa OSHA program.

6 Q. What year was the Iowa OSHA?

7 A. That was in the '70s, in the mid-'70s,
8 mid- to late '70s.

9 Q. Okay. Can you give me the years that
10 you worked there, please.

11 A. I may have -- I may be off a little bit
12 in terms of years, but probably 19 -- be '76 or 7
13 until 19- -- the end of 1980.

14 Q. Okay. Thank you. What was the nature
15 of the medical research you did before that time?

16 A. I did cell culture research. So I was
17 investigating some of the toxic effects of certain
18 bacteria in cell culture.

19 Q. Had anything to do with asbestos?

20 A. Did not.

21 Q. Anything to do with any asbestos
22 disease?

23 A. No.

24 Q. Okay. Following OSHA, can you give me
25 a summary of your employers?

1 A. Yes. Then following OSHA, starting in
2 1981, I started my own consulting company and had
3 been working as a consultant since that time.

4 Q. And in 1981 was it called Finn
5 Consulting Services?

6 A. No, it wasn't. At that time the first
7 corporate name was Des Moines Health Associates.

8 Q. How long did you work through
9 Des Moines Health Associates?

10 A. I changed the name of Des Moines Health
11 Associates to Chart, C-H-A-R-T, Chart Services a
12 few years after I formed it and then I continued
13 to work or have that corporation until into the
14 mid- or late 1990s.

15 Q. Okay. And approximately when,
16 understanding that the year may not be exact, but
17 approximately when did you change from Des Moines
18 Health Associates to Chart Services?

19 A. In the mid-19- -- mid- to late 1980s, I
20 believe.

21 Q. Okay. Was there any change in the type
22 or scope of work and services you presented?

23 A. No, there was not.

24 Q. What was the reason for the change of
25 names?

1 A. Just marketing and I was receiving a
2 number of phone calls from people thinking that we
3 were a physicians office.

4 Q. Okay. I will come back to these in a
5 moment, but after the mid- to late 1990s, what did
6 you do after Chart Services?

7 A. Then I formed a corporation called Mary
8 Finn & Associates, which I then subsequently
9 changed the name to The Finn Group.

10 Q. Okay. Was there a time that that
11 became Finn Consulting Services?

12 A. No. Finn Consulting Services is a
13 separate corporation.

14 Q. Does The Finn Group operate today?

15 A. Yes.

16 Q. When did Finn Consulting Services
17 begin?

18 A. In early 2000. 2003 or 4, right in
19 there.

20 Q. Can you describe for me the different
21 services provided by The Finn Group and Finn
22 Consulting Services?

23 A. Yes. Finn Group does industrial
24 hygiene and public health consulting. Finn
25 Consulting Services does risk communication

1 consulting and then the type of work -- the
2 asbestos litigation and related type of work such
3 as what I'm here today for.

4 Q. That would be litigation consulting?

5 A. That would be one way to describe it,
6 yes.

7 Q. Does Finn Consulting Services do any
8 work that's not related to litigation?

9 A. Yes. The risk communication
10 consulting.

11 Q. I'm not hearing you completely. I hear
12 the word "risk" and I don't hear what you're
13 saying.

14 A. I'll move closer. Hopefully that will
15 help. Risk communication consulting.

16 Q. What does that mean?

17 A. Often times I'll get a call from a
18 potential client or from an existing client that
19 needs some help explaining risks of exposures, not
20 asbestos related necessarily, to employees or
21 training their personnel in how to explain
22 technical issues and technically exposure and
23 health-effects issues to groups of people. So I
24 provide training with that.

25 Q. Okay. Thank you. Besides your risk

1 communication services and your litigation
2 consulting, does Finn Consulting Services do any
3 other types of work?

4 A. No. Everything is under one of those
5 two topical areas.

6 Q. Okay. And can you give me a rough
7 breakdown, realizing it may not be exact, between
8 the time -- within Finn Consulting Services how
9 much is risk communication and how much is
10 litigation consulting?

11 A. As far as how it splits up between the
12 two corporations the time?

13 Q. No. I'm just looking at Finn
14 Consulting Services right now.

15 A. Okay. I'm sorry. Under Finn
16 Consulting Services, roughly about 85 percent is
17 involved with litigation and about 15 percent with
18 risk communication.

19 Q. Looking at the litigation consulting
20 you do, what percentage of that relates to
21 asbestos?

22 A. Almost all of it.

23 Q. Do you do any litigation consulting
24 through The Finn Group?

25 A. Yes, I do in other industrial hygiene

1 and public -- public health areas. Also, let me
2 just also expand on those statements I said is
3 that under Finn Consulting Services, I do a small
4 amount -- I have done a small amount of
5 non-asbestos litigation work there.

6 Q. Okay. What type litigation -- well,
7 let me ask you this, first of all. Do you do any
8 asbestos consulting through The Finn Group?

9 A. I do no asbestos litigation work in The
10 Finn Group; however, I do traditional industrial
11 hygiene asbestos work in The Finn Group.

12 Q. Is that related to litigation or a
13 company that's a defendant in ongoing litigation?

14 A. No.

15 Q. Before establishment of Finn Consulting
16 Services, you said it was sometime in 2003 or
17 2004, did you do any litigation consulting
18 relating to asbestos?

19 A. I might have helped a company with like
20 regulatory compliance, but 2003 or 4 was the first
21 time I really was involved with the bodily injury,
22 asbestos disease type of litigation.

23 Q. Okay. And is it correct for me to
24 assume that all of that work is through the Finn
25 Consulting Services company?

1 A. Yes.

2 Q. And am I correct that that is a
3 company?

4 A. Yes. It's a corporation.

5 Q. Okay. Thank you. What percentage of
6 your consulting work is for the plaintiff or an
7 injured person versus a defendant?

8 A. You know, generally overall I've had --
9 as far as industrial hygiene, I've been -- done
10 work on both -- you know, both -- for both
11 defendants and plaintiffs. In terms of the
12 asbestos, my work has been for defendants.

13 Q. A hundred percent?

14 A. Yes.

15 Q. Looking at your non-asbestos consulting
16 work, have you ever appeared in court on behalf of
17 a plaintiff?

18 A. Yes.

19 Q. Can you describe some of those
20 instances for me, please? And I'm focusing
21 specifically on when you came to court.

22 A. Yes. Some of them -- one of them in
23 particular has not gone to court yet, but it is in
24 the legal process, I guess, for lack of another
25 way to say that and that's related to a homeowner

1 with some mold issues. Over the years I've also
2 done a number of indoor environmental quality
3 cases involving, you know, the plaintiffs for
4 various exposure issues related to indoor; it
5 might be mold, it might be bad ventilation, those
6 types of things.

7 Q. And again, just looking at times when
8 you came to court and offered trial testimony, can
9 you tell me what the allegation of exposure was?

10 A. One in particular I recall was a person
11 who -- whose home had been -- had moisture
12 intrusion and there was mold growing there and so
13 the person was alleging that they had health
14 effects as the result of that mold exposure.

15 Q. And when did you offer the testimony?

16 A. This has probably been oh, four years
17 ago perhaps. Three or four years ago.

18 Q. What jurisdiction?

19 A. Iowa. I don't know the specific
20 district name of it or court, but it was in
21 Des Moines, Iowa.

22 Q. And did you go to a courthouse in
23 Des Moines?

24 A. Yes.

25 Q. Do you recall the plaintiff's name?

1 A. I don't recall the plaintiff's name,
2 no.

3 Q. How about the attorney who hired you?

4 A. The attorney who hired me was with the
5 Whitfield firm, I believe.

6 Q. W-H-I-T-F-I-E-L-D?

7 A. Correct.

8 Q. Do you remember which attorney in that
9 firm?

10 A. No, I don't.

11 Q. Besides the Des Moines, Iowa, mold
12 case, have you ever appeared and testified in
13 court on behalf of a plaintiff?

14 A. Yes. There was another Des Moines
15 homeowner, again a mold case on behalf of the
16 plaintiff.

17 Q. And when was that, please?

18 A. That was after the one I just
19 described. So I think it might have been like
20 three years ago.

21 Q. Was that with the same plaintiffs firm?

22 A. Yes.

23 Q. Have you ever appeared in court on any
24 other occasion to testify on behalf of a
25 plaintiff?

1 A. I believe I have. I don't recall right
2 now, but I'm sure I have.

3 Q. When would that have occurred, before
4 or after these two cases?

5 A. It probably was before. There
6 aren't -- I haven't been in court in terms of
7 industrial hygiene work very often, but I believe
8 there are a few other times.

9 Q. Okay. Over your career how many times
10 have you appeared in court?

11 A. Are you talking about the asbestos
12 litigation?

13 Q. No. Just as an industrial hygienist.

14 A. As an industrial hygienist, oh, fewer
15 then ten times. Just a few times.

16 Q. Do you recall the first time you
17 appeared in court?

18 A. No, I don't.

19 Q. Do you recall what decade it was in?

20 A. Not really.

21 Q. You have no recollection of the first
22 time you actually went to court and testified as
23 an industrial hygienist?

24 A. No. It's not something I did very
25 often, so I can't recall when it specifically was.

1 Q. Do you recall any substances besides
2 asbestos and mold that you've ever testified in a
3 court on behalf of a plaintiff?

4 A. Not specifically right now.

5 Q. And I think I misspoke. When you said
6 you've been in court fewer than ten times, that
7 includes testimony both for plaintiffs and
8 defendants; is that correct?

9 A. That's correct.

10 Q. How many times approximately have you
11 appeared in court testifying as an industrial
12 hygienist on the subject of asbestos?

13 A. Fewer than ten times. My best estimate
14 is perhaps seven.

15 Q. Okay. And who has been the attorney
16 with whom you worked with when you've testified
17 regarding asbestos?

18 A. I've worked with a couple different
19 attorneys. The Rasmussen firm has been one and
20 also then the DeHay law firm has been another.

21 Q. H-A-Y?

22 A. D-E-H-A-Y.

23 Q. Spell that again, please.

24 A. D, as in David, E-H, as in Harry, A-Y.

25 Q. Thank you. Where is that firm located?

1 A. Baltimore.

2 Q. And where have you appeared in court
3 regarding asbestos, what geographic locations?

4 A. In Pennsylvania and in West Virginia
5 and also in California.

6 Q. What part of California?

7 A. Outside Los Angeles. And also in
8 Los Angeles.

9 Q. Any other locations?

10 A. No. Those are the -- I think those are
11 all the ones I recall.

12 Q. Pennsylvania, West Virginia, and at
13 least two instances in Los Angeles?

14 A. Yes.

15 Q. And, I'm sorry, I don't have your
16 resume in front of me. Can you just tell me when
17 you were certified as an industrial hygienist?

18 A. Yes. That was in 1986.

19 Q. Did you have certified industrial
20 hygienists working with the Des Moines Health
21 Associates?

22 A. I was, yes. And along the way I
23 think -- I had one or two other certified
24 industrial hygienists.

25 Q. Okay. As I understand it, you operated

1 beginning in 1981 as Des Moines Health Associates;
2 is that correct?

3 A. Yes.

4 Q. Was there a certified industrial
5 hygienist with that firm at that time?

6 A. No.

7 Q. When did that organization hire its
8 first or have its first certified industrial
9 hygienist as an employee?

10 A. When I became certified.

11 Q. What type of work did you do before
12 1986 in that group?

13 A. I did quite a bit of industrial
14 hygiene, public health, asbestos consulting work,
15 such as facility inspections, sampling, training
16 and then other industrial -- comprehensive
17 industrial hygiene-type work, such as noise
18 surveys, industrial hygiene field monitoring,
19 those types of things.

20 Q. Okay. I'd like you for this question
21 to exclude your recent few years of asbestos legal
22 consulting, okay? And over your industrial
23 hygiene career, what portion of your work has
24 involved asbestos versus other risk assessment
25 issues?

1 A. This is an estimate, but I think it's a
2 very close estimate. It's probably about
3 80 percent has been asbestos related.

4 Q. And has most of the work in your
5 industrial hygiene career been at the request of a
6 company?

7 A. Yeah. I mean, I work for building
8 owners or my clients have been building owners, so
9 from that respect most of it has been either a
10 business or the owner of a building of some
11 nature. Occasionally government entities. Not
12 frequently but on occasion. Certainly a lot of
13 school districts.

14 Q. Okay. There was a period of time when
15 there was ongoing litigation to assess and
16 potentially remove asbestos from buildings. Were
17 you involved in any of that?

18 MR. GUNTER: Note my objection.

19 A. No, I was not involved with the
20 litigation for that. I did industrial hygiene
21 field work, but not the litigation.

22 Q. (By Mr. Hart) Okay. What are your
23 charges to appear as an expert in this matter?

24 A. I charge \$290 an hour.

25 Q. Is that for all work that you do?

1 A. Yes.

2 Q. Do you charge for travel time?

3 A. Yes.

4 Q. How do you charge that?

5 A. The same rate. I charge a per hour

6 rate for all activities related to a specific

7 client.

8 Q. Do you have a daily rate?

9 A. No.

10 Q. When you're -- how do you calculate

11 your travel time; is it door-to-door or what?

12 A. Correct.

13 Q. Do you have a maximum time that you'll

14 charge for a day?

15 A. No.

16 Q. So if you work 12 hours, you charge for

17 12; if you work three hours, you charge for three?

18 A. Correct.

19 Q. Is that the same -- does that apply

20 when you're out of town?

21 A. Yes.

22 Q. So if you're asked to travel to

23 Los Angeles and testify in a trial and you don't

24 get called and you're sitting around your hotel

25 room all day, do you charge for that?

1 A. Only if I'm doing trial prep work
2 related to the case. If not, then no.

3 Q. How much time have you devoted to the
4 Sunday matter so far?

5 A. You know, I haven't completed my
6 billing, but my best estimate is around 28 hours.

7 Q. And besides the time we'll spend in
8 today's deposition, what additional work do you
9 expect to do before trial?

10 A. I don't have any additional work, no,
11 that I plan to do or have been asked to do.

12 Q. Have you -- besides reviewing what you
13 did earlier, have you done any work since your
14 April 29th report?

15 A. No. Other than assemble the materials
16 for today.

17 Q. Okay. And do you believe all of your
18 opinions that you intend to offer are contained in
19 your report?

20 A. Yes, they are.

21 Q. Have you reviewed any documents
22 provided to you by Ingersoll-Rand or counsel for
23 Ingersoll-Rand?

24 A. No.

25 Q. Do you know what type of equipment they

1 manufactured that's relevant in this case?

2 A. The equipment that I identified when
3 reading the case materials were pumps and
4 compressors.

5 Q. Do you know how if they -- if at all,
6 Ingersoll-Rand pumps and compressors differ from
7 pumps and compressors made by other companies in
8 this case?

9 A. No, not specifically, no.

10 Q. During your review, did you find that
11 Ingersoll-Rand pumps and compressors contained,
12 first of all, asbestos gaskets?

13 A. What I assumed for purposes of my
14 review is that they did. They may or may not
15 have, but for my review, I assumed that they did.

16 Q. Has anyone on behalf of Ingersoll-Rand
17 told you or indicated to you that Ingersoll-Rand
18 pumps and compressors never contained asbestos
19 gaskets?

20 A. No.

21 Q. Did you find in your review of the
22 materials that Ingersoll-Rand pumps and
23 compressors contained asbestos packing?

24 A. Again, for purposes of my review, I
25 assumed they did. I don't know for sure whether

1 or not they did.

2 Q. You saw that the plaintiff described
3 working on what he believed was asbestos packing
4 on Ingersoll-Rand pumps and compressors?

5 MR. GUNTER: Note my objection.

6 A. I have to look at my report here for a
7 second. I don't recall that he talked about the
8 packing. He talked about the gaskets.

9 Q. (By Mr. Hart) Okay.

10 A. I don't recall a specific reference to
11 the packing.

12 Q. All right. You recall that Mr. Sunday
13 described working with what he believed was
14 asbestos-containing gaskets on the Ingersoll-Rand
15 equipment; is that correct?

16 A. Yes. I recall that he talked about
17 working on gaskets with Ingersoll-Rand
18 compressors. Again, for my review, I assumed that
19 they were asbestos.

20 Q. And your -- does your laboratory have
21 the facilities to do bulk sampling?

22 A. I have in the past. I still can do
23 bulk sampling, although I don't do it really
24 anymore, but I have done it in the past on very,
25 very frequent occasions.

1 Q. And if someone wanted bulk sampling
2 done, if you didn't want to do it, you'd certainly
3 know where to get that done, correct?

4 A. Correct.

5 Q. Okay. Has anyone asked you to do any
6 bulk sampling of gaskets on an Ingersoll-Rand
7 product to prove or disprove the presence of
8 asbestos?

9 A. No.

10 Q. Now, I'm not talking -- for this next
11 question I'm not talking about risk for the
12 moment, but let me ask you this. For the purposes
13 of your testimony, do you assume that Mr. Sunday
14 was exposed to asbestos from gaskets on the
15 Ingersoll-Rand equipment?

16 A. For purposes of my review, what I
17 assumed is that any work he did with gaskets on
18 the Ingersoll-Rand pumps or compressors was done
19 with the same kinds of procedures and processes as
20 represented in the scientific literature and any
21 exposures he would have had would have been in
22 those ranges.

23 Q. Okay. For the purposes of your review,
24 did you assume that he was in fact exposed to
25 asbestos from Ingersoll-Rand equipment? And I'm

1 not asking about quantity. I'm just asking about
2 was he exposed --

3 A. For purpose -- I'm sorry, I cut you
4 off.

5 Q. Go right ahead.

6 A. For purposes of my review, yes, I did,
7 to those low levels.

8 Q. Okay. Now, various studies of asbestos
9 gasketing work practices have incorporated
10 different exposure control mechanisms, have they
11 not?

12 A. Yes.

13 Q. Did you assume that Mr. Sunday's work
14 employed those exposure control mechanisms or did
15 you read his testimony and assess it exactly as he
16 said he did it?

17 A. I assessed it as he did it assuming no
18 controls.

19 Q. Okay. Now, you have certain opinions
20 about the type of asbestos called chrysotile in
21 terms of its potency; is that correct?

22 A. Yes.

23 Q. And generally you believe chrysotile
24 is -- well, did you believe it's not as potent as
25 amphiboles or do you believe it has no potency?

1 A. I believe that if chrysotile has a risk
2 for producing -- I should say that differently. I
3 believe that if there is an increased risk for
4 pleural mesothelioma associated with chrysotile
5 exposure, that risk occurs at very, very high
6 levels, in the neighborhood of 100 to 200 fiber
7 per cc-years, if at all, but certainly if it does,
8 it's in very, very high doses.

9 Q. But sitting here today, you yourself
10 are not sure that there is a risk; is that fair?

11 A. I think there's a potential there is
12 not a risk. However, again, if there is, it is
13 very, very high dose.

14 Q. It's your opinion that it's the 100 to
15 200 fiber per cc-year exposure level?

16 A. Yes.

17 Q. What is your opinion as to the risk
18 level for amphibole fibers? And let's, for the
19 sake of this question, assume I'm referring to
20 amosite.

21 A. For purposes of amosite, I think
22 generally my opinion is that in the neighborhood
23 of probably 8 to 12 fiber per cc-years. But
24 certainly, you know, much, much lower and in that
25 neighborhood.

1 Q. Okay. Let me ask you this, please,
2 ma'am. If the work that -- well, first of all,
3 you assumed that the gaskets he worked on were
4 composed of chrysotile; is that fair?

5 A. Yes. For purposes of my review, I
6 assumed that they contained chrysotile.

7 Q. Let me ask you this question, please,
8 ma'am. If you assumed that the gaskets were all
9 amosite and that he performed the work practices
10 exactly as he described them, do you believe he
11 would have been at an increased risk of
12 mesothelioma on the gasket work?

13 MR. GUNTER: Note my objection.

14 A. If -- again, taking a look at the
15 scientific literature involved with that type of
16 work and assuming that that would generate the
17 same fiber level that chrysotile does, that
18 exposure level ranges from nondetectable to about
19 .04 fiber per cc. Assuming he had let's say even
20 40 years of exposure to that for every day that he
21 worked, that still only puts us at about 1.6 fiber
22 per cc. So, again, from a dose standpoint, it
23 doesn't appear that work even with the
24 hypothetical amosite-containing gaskets would put
25 it at that dose level.

1 Q. (By Mr. Hart) Okay. Did you see any
2 evidence that Mr. Sunday was in fact exposed to
3 any crocidolite asbestos?

4 A. You know, insulation does contain
5 crocidolite on occasion, so I think the potential
6 is there. Whether or not he was I don't know for
7 sure, but there's a potential there.

8 Q. Can you give me any empirical evidence
9 of any -- of the presence of any crocidolite in
10 any insulation that Mr. Sunday had worked with?

11 A. Well, from the -- there aren't any
12 sample results, so my opinion on that is really
13 based on the description of his work in the Navy
14 and his work around insulation even into his
15 civilian career. So that's the evidence I have of
16 the materials, but I don't have any lab sample
17 results.

18 Q. Okay. Can you give me the basis for
19 your statement that you believe some insulation
20 that he may have been exposed to might have
21 contained crocidolite?

22 A. Yes. I know there are publications
23 about insulation in the Navy -- I don't happen to
24 have those with me -- that crocidolite has been in
25 insulation. Also, my own experience in analyzing

1 insulation products from commercial buildings in
2 which I have seen -- personally have seen
3 crocidolite in insulation samples.

4 Q. But do you have any -- okay. Your
5 personal experience. And you've never had any
6 personal experience on any job site where
7 Mr. Sunday worked; is that correct?

8 A. That's correct.

9 Q. And you can't cite to me any
10 publication that you are relying upon for the
11 presence of crocidolite in insulation?

12 A. I didn't bring them with me. I know
13 they exist. I didn't bring them with me. So, no,
14 as I sit here, I can't give you a citation.

15 Q. Sitting here today, can you tell me if
16 those publications you relied upon referred to
17 crocidolite in insulation on board US Naval
18 destroyers of the type Mr. Sunday served or
19 possibly some other types of ships?

20 A. I can't recall what the type of ship
21 was to be able to say it was the type of ship he
22 worked on.

23 Q. Let me ask this question. If you
24 assume for the purposes of this question that
25 Mr. Sunday's gasket work was done with gaskets

1 composed of crocidolite and the work was done
2 exactly as he described otherwise, would you
3 believe he would be at an increased risk of
4 exposure or increased risk of mesothelioma from
5 that exposure?

6 A. I believe that crocidolite does impart
7 the highest risk, so I believe, again, assuming
8 the same range of exposure levels in the
9 literature, that I believe he would have an
10 increased risk of mesothelioma from crocidolite.

11 Q. When you were at the Iowa OSHA, did you
12 do work with regard to asbestos risk assessment?

13 A. What my duties were in OSHA I was a --
14 started out as a field industrial hygiene
15 compliance person, inspector and so my
16 responsibilities were to inspect workplaces and
17 worker exposure for compliance with OSHA. So we
18 didn't do -- as an inspector, we didn't do,
19 quote/unquote, risk assessment. It was for
20 purposes of determining OSHA compliance.

21 Q. Did you review the OSHA standards in
22 order to determine the compliance standards?

23 A. Yes. I had training in and reviewed
24 those standards.

25 Q. Did your training include review of the

1 federal OSHA regulations at the time?

2 A. Yes.

3 Q. So you're familiar with the 1971 and
4 1972 OSHA publications in the Federal Register?

5 A. Yes.

6 Q. Did you ever have occasion to review
7 the publications by the National Institute of
8 Occupational Safety & Health regarding asbestos?

9 A. Yes.

10 Q. You're familiar with the 1971 criteria
11 document on asbestos by NIOSH?

12 A. Yes.

13 Q. And have you kept abreast of the
14 various publications concerning asbestos by NIOSH
15 since that time?

16 A. Yes. I keep up with the publications
17 that are relevant in my field of practice.

18 Q. Well, just so that we don't have any
19 confusion. Do those include publications by NIOSH
20 as they relate to asbestos?

21 A. Yes.

22 Q. Likewise, have you kept abreast of the
23 OSHA publications regarding asbestos since 1971?

24 A. Yes. Again, as they relate to my
25 field, yes.

1 Q. Okay. And the field I'm asking about
2 is asbestos.

3 A. And when I say that, I'm referring to
4 asbestos as it relates to industrial hygiene and
5 public health.

6 Q. Okay. And that includes risk
7 assessment?

8 A. Correct.

9 Q. And you understand that both NIOSH and
10 OSHA have published their risk assessment
11 concerning asbestos at various points in time?

12 A. Yes, certainly that, you know, that has
13 been a part of their -- the Federal Register in
14 their public- -- in certain publications.

15 Q. And you recall that NIOSH from time to
16 time has issued publication in which they review
17 various literature and various statements by
18 persons and they evaluate those statements and
19 issue their own risk assessment regarding
20 asbestos?

21 A. Yes. NIOSH, you know, has published a
22 number of different documents, some of which have
23 included risk assessment.

24 Q. Now, are you familiar with the World
25 Health Organization?

1 A. Yes.

2 Q. And have you kept abreast of
3 publications of the World Health Organization on
4 asbestos?

5 A. Yes.

6 Q. And likewise, International Agency for
7 Research on Cancer, are you familiar with that
8 organization?

9 A. Yes, I am.

10 Q. Have you kept abreast of publications
11 relating to asbestos?

12 A. Yes, I've read their publication.

13 Q. I think you reference in your
14 bibliography the publication by the United States
15 Department of Health and Human Services Agency for
16 Toxic Substances and Disease Registry. Are you
17 familiar with that?

18 A. Yes, the ACS DR, I believe. Is that --

19 Q. ACS DR.

20 A. Yes.

21 Q. Now, you referenced a particular
22 teaching material that they published in 2006, I
23 believe?

24 A. 2008.

25 Q. 2008. Is that one of the documents you

1 have with you?

2 A. That -- no. That one was -- that's a
3 pretty voluminous one, so I did not bring that
4 one.

5 Q. Okay.

6 A. And I'm sorry, it's 2007. I misspoke.

7 Q. Now, are you familiar with the
8 "Toxicological Profile for Asbestos" published by
9 that organization in 2001?

10 A. It's been a while. I read it, but it's
11 been quite a while since I have.

12 Q. Do you find that profile to be reliable
13 from that agency?

14 A. It would depend on the specific
15 information, the specific statement, the specific
16 question that it pertains to.

17 Q. You refer on your references to
18 publications by Cheng and McDermott 1991,
19 C-H-E-N-G?

20 A. Yes.

21 Q. Do you find that publication to be
22 reliable?

23 A. The publication is reliable as far as
24 it goes. However, they didn't -- from an
25 industrial hygiene perspective, they did not do

1 eight-hour, time-weighted average calculations of
2 their data, so one has to be careful on how that
3 data's interpreted.

4 Q. Okay. Do you agree with the
5 conclusions they reach from their data?

6 A. In terms of which conclusions?

7 Q. The conclusions they report in that
8 paper.

9 A. You know, I don't have reason to think
10 that the data was not reliable. However, again,
11 as I said, it is not eight-hour, time-weighted
12 averaged.

13 Q. And I notice that you cite to some
14 non-peer reviewed examinations of exposures from
15 gasket material including those by Liukonen?

16 A. Yes.

17 Q. So you don't limit yourself to peer
18 review articles; is that correct?

19 A. What I do is I take a look at the data
20 and the methodologies and if the data and
21 methodologies are reliable, then I do use that
22 data as part of my assessment and that would be
23 true of peer reviewed or not peer reviewed.

24 Q. The answer to my question is you don't
25 confine yourself to peer reviewed literature?

1 MR. GUNTER: Note my objection.

2 A. That's correct. Again, based on my
3 analysis of the data and methods.

4 Q. (By Mr. Hart) Did you review any
5 studies by Dr. Millette concerning asbestos gasket
6 or packing exposures?

7 A. Not for this case, no.

8 Q. Have you reviewed them in the past?

9 A. There is a -- I remember one
10 publication of his I reviewed sometime ago and I
11 can't recall the citation for it. So I have -- I
12 did review one publication of his in the past.

13 Q. Have you reviewed any publications by
14 Dr. Longo concerning asbestos packing or gaskets?

15 A. Some years ago there was a publication
16 in the American Industrial Hygiene Association
17 Journal that I read.

18 Q. Okay. And why did you not include that
19 in your references?

20 A. Because then I think the letter to the
21 editor from Fred Boelter who reviewed that I think
22 expressed it well and I really don't have anything
23 to add to that other than what was expressed in
24 the letter to the editor regarding some
25 methodologies.

1 Q. Did you see the response by Dr. Longo's
2 group concerning Mr. Boelter's letter?

3 A. Yes. It's been a while since I've read
4 it, but I know I read it.

5 Q. Mr. or Dr. Longo's group has done work
6 practice assessments that were not in the
7 published literature. Have you reviewed any of
8 those?

9 MR. GUNTER: Note my objection.

10 A. No, I haven't.

11 Q. (By Mr. Hart) Has anyone given you
12 copies of their gasket removal work practice
13 studies?

14 MR. GUNTER: Objection.

15 A. Are you referring to Longo's?

16 Q. (By Mr. Hart) Yes.

17 A. No, they haven't.

18 Q. Have you ever reviewed any videotapes
19 of work practice simulations performed by
20 Dr. Longo's group?

21 A. No.

22 MR. GUNTER: Same objection.

23 Q. (By Mr. Hart) Have you ever reviewed
24 personally the work practice of gasket removal?

25 A. Yes.

1 Q. Asbestos gasket removal?

2 A. Yes.

3 Q. Describe that for me, please.

4 A. I've reviewed -- I've had clients who
5 part of their -- the work of their employees was
6 to remove gaskets and so I've observed that gasket
7 removal. I've trained in how to do proper gasket
8 removal under the current regulations. I've done
9 air sampling during gasket removal.

10 Q. And when did you first observe that
11 work?

12 A. In the 1980s.

13 Q. Do you recall where or give me an
14 example some of the locations you observed that?

15 A. I can't -- I think that some of them --
16 in fact, I'm pretty sure that some of them -- it
17 was in the 1980s in power plants either in
18 Nebraska, Ohio, or Iowa, certainly in more than
19 one power plant during outages and during
20 maintenance work.

21 Q. And did you observe persons, first of
22 all, scraping gaskets off flange surfaces?

23 A. Yes.

24 Q. Did you observe persons using a wire
25 brush to clean gasket material off flange

1 surfaces?

2 A. Yes.

3 Q. Did you observe anyone using a powered
4 wired brush to remove gasket material off of
5 flange surfaces?

6 A. Yes.

7 Q. Those were all work practices that took
8 place in power plants which you were observing,
9 correct?

10 A. Yes. Not all of them in every plant,
11 but certainly, you know, as a whole all of those
12 have been used in my presence.

13 Q. And did you observe visually any dust
14 generated by those work practices?

15 A. There were certainly, you know, in some
16 of them pieces -- you know, large chunks, those
17 types of things, coming off is the best way I can
18 describe it, I think.

19 Q. And your testimony is that you're
20 describing removal of asbestos gaskets; is that
21 correct?

22 A. Yes.

23 Q. And when -- were you present when the
24 flange surfaces were first opened?

25 A. Yes.

1 Q. Did you observe on some occasions that
2 the gasket material was dried and baked onto the
3 flange surfaces?

4 A. There was some where it was.

5 Q. And that in some occasions the gasket
6 material on the flange surfaces was not easily
7 removed by just using a scraper or a screwdriver?

8 A. Some of them, you know, they had to
9 take a little bit more, you know, muscle to take
10 them off. You know, some came off very easy.
11 Some took a little bit more effort.

12 Q. Some required wire brushing and some
13 required powered wire brushing; is that fair?

14 A. On occasion.

15 Q. Do you still have any of your sampling
16 results from those observations?

17 A. No.

18 Q. Were those kept by you or given to your
19 client?

20 A. They were given to the client.

21 Q. At that time who was the client?

22 A. Oh, gosh. There were a number of
23 different -- different --

24 Q. I don't mean the specific name. I
25 mean --

1 A. Oh, I'm sorry.

2 Q. What was the nature of the client? Was
3 it the power plant?

4 A. Correct.

5 Q. Okay. And ask in a different way, you
6 weren't hired by any individuals to do any
7 exposure assessment, correct?

8 A. That's correct.

9 Q. Did you wear a respirator when you were
10 present?

11 A. Not for the gasket removal, unless the
12 gasket removal was in an asbestos-abatement area
13 where there was insulation being removed.

14 Q. Did any of the workers wear a
15 respirator?

16 A. Again, not if it was just gasket
17 removal. But if it was needing to wear them for
18 other insulation removal, they did.

19 Q. In your training that you've done for
20 gasket removal, have you ever recommended that
21 workers wear respirators?

22 A. Not for gasket removal, no.

23 Q. Do you have any recollection of what
24 the exposure levels were from gasket removal?

25 A. My general recollection is they were

1 nondetectable to .0-some number, but quite a
2 magnitude under the current OSHA standard.

3 Q. Nondetectable to what?

4 A. .0 something.

5 Q. Did you do any measurements during
6 cleanup operations after gasket removal?

7 A. No. The measurements I did was
8 during -- or were during the workers' gasket work.

9 Q. Have you ever done any measurements
10 during the sweeping of removed gasket material?

11 A. Not as an isolated measurement. There
12 could have been sweeping done during, you know,
13 work, but not as an isolated measurement.

14 Q. Do you have any knowledge of what
15 exposures measurements would be -- empirical
16 knowledge what the exposures would be during the
17 sweeping of gasket material?

18 A. No. As it relates to the exposure
19 levels during a workday as incorporated into that,
20 but not as an isolated task.

21 Q. During your observations, did you ever
22 observe workers in order to gain access to a
23 gasket they had to open up a flange that
24 previously had asbestos on it, asbestos
25 insulation?

1 A. I believe so, yes.

2 Q. Okay. And as part of the work practice
3 to access the gasket, the asbestos insulation
4 would first need to be removed; is that correct?

5 A. Yes.

6 Q. And did you observe that?

7 A. Yes.

8 Q. And what were the exposures from
9 asbestos from that operation?

10 A. Well, that was during asbestos
11 abatement work and so they were removing
12 insulation. It was work area contained using
13 containment methods. I don't recall the specific
14 numbers from that.

15 Q. Okay. Would those exposures place
16 someone at a risk of disease if they were not
17 protected?

18 A. Again, it depends on what their dose
19 would have been over time, what their actual dose
20 was, how long they did it, how often they did it,
21 the exposure levels.

22 Q. Someone doing that type of work
23 regularly during their worklife be at risk of
24 disease?

25 A. Since they were working with

1 insulation -- amphibole-containing insulation, I
2 believe it increases the risk of disease.

3 Q. Have you ever published in the peer
4 review literature any of your measurements of
5 asbestos-containing environment?

6 A. No.

7 Q. Have you ever published any literature
8 on asbestos or asbestos disease?

9 A. No.

10 Q. Have you ever published anything on any
11 subject?

12 A. Yes.

13 Q. Tell me about that, please.

14 A. That was back when I was doing medical
15 research. I published two articles and was, I
16 believe, second author on another or subsequent
17 author on another related to, again, cell culture
18 and bacterial issues.

19 Q. Have you ever been the primary author
20 of any literature?

21 A. Yes.

22 Q. Pardon me?

23 A. Yes.

24 Q. And was that one of the cell culture
25 articles?

1 A. Yes. I believe two of them.

2 Q. Okay. And those would have been in the
3 1970s?

4 A. Correct.

5 Q. Now, your doctorate was in philosophy
6 and you state here that you have a specialization
7 in industrial hygiene; is that correct?

8 A. Well, PhD -- that's what PhD stands for
9 for everybody, so I just happened to spell it out.
10 And my area of specialization was industrial
11 hygiene.

12 Q. So your course of study involved
13 industrial hygiene?

14 A. I'm sorry?

15 Q. Your course of study involved
16 industrial hygiene?

17 A. Yes.

18 Q. You weren't studying Socrates and
19 Descartes?

20 A. No.

21 Q. Okay.

22 A. No. Like I said, that's what "PhD"
23 stands for. So I -- maybe it would be clearer if
24 I just said "PhD" and not spell it out what it
25 truly stands for for everybody.

1 Q. Okay. What institution did you receive
2 your doctorate from?

3 A. Union Institute & University.

4 Q. Where is that located?

5 A. In Cincinnati.

6 Q. Did you live in Cincinnati at the time?

7 A. No. I actually lived -- my permanent
8 residence was Des Moines.

9 Q. Did you ever travel to Cincinnati?

10 A. Yes.

11 Q. With regard to Union Institute?

12 A. Yes.

13 Q. How frequently during your course of
14 study?

15 A. A handful of times. I can't remember
16 exactly how many. Maybe a half dozen times or so.

17 Q. Did your doctorate -- or in receiving
18 your doctorate, did Union Institute give you any
19 credit for any work experience that you had?

20 A. Not for work experience, no.

21 Q. Anything else?

22 A. No, there was no credit for past -- you
23 know, past efforts. It was all forward going.

24 Q. Did you get any credit for other
25 activities you were doing during that time period?

1 A. No.

2 Q. How long was that course?

3 A. Oh, gosh, I don't remember how long it
4 took me. It took me a number of years to do that.
5 Might have been, you know, five or six or seven
6 years to finish it.

7 Q. And over what period of time did you
8 attend Union Institute or take courses towards
9 your doctorate?

10 A. It was in the 19- -- late 1980s, mid-
11 to late 1980s. And I finished then in 1991.

12 Q. Did you have an advisor during that
13 time?

14 A. Yes.

15 Q. Who was that?

16 A. Barry Herman.

17 Q. What was his position?

18 A. He was on the faculty.

19 Q. What were his qualifications generally?

20 A. He was in distance learning, but I did
21 have a technical advisor -- maybe that's the
22 question you're asking -- by the name of William
23 Wolansky whose expertise was in occupational
24 safety.

25 Q. Wolansky?

1 A. Wolansky.

2 Q. Would you spell it, please.

3 A. I might misspell it, but I believe it

4 was W-O-L-A-N-S-K-Y, something close to that.

5 Q. And his expertise was in what?

6 A. Occupational safety.

7 Q. Was he a faculty member?

8 A. At Iowa State University.

9 Q. At Iowa State?

10 A. Correct.

11 Q. Not at Union Institute?

12 A. Yeah, he was at Iowa State University

13 in Ames, Iowa, and could serve as my advisor

14 through Union Institute & University.

15 Q. Have you ever done any work with

16 Dr. James Merchant?

17 A. I know him -- I know of him and I think

18 I've talked to him once or twice. I know who he

19 is, but I've not worked with him, no.

20 Q. Do you consider him to be someone

21 reputable in the field of asbestos disease?

22 A. You know, I don't know that much about

23 his work to be able to comment on that.

24 Q. Do you consider yourself capable of

25 rendering a medical diagnosis?

1 A. No. I'm not a physician. I cannot
2 diagnose individuals.

3 Q. Likewise, in an individual case, do you
4 consider yourself competent to render opinions as
5 to medical causation?

6 A. What my opinions are relate to the risk
7 of a person not medical determinations of disease
8 in a person.

9 Q. So you do not consider yourself
10 qualified to render opinions on medical causation;
11 is that correct?

12 MR. GUNTER: Note my objection.

13 A. You know, as it relates to risk, I am
14 qualified to do that. However, when it comes to
15 the diagnosis of an individual, you know, for
16 example in this case, I assumed that the reported
17 diagnosis is correct. I would not feel qualified
18 to challenge the medical diagnosis. However, I do
19 feel qualified to evaluate the specific situation
20 to determine if there's an increased risk of
21 disease.

22 Q. (By Mr. Hart) But risk and actual
23 causation are two different things; is that
24 correct?

25 MR. GUNTER: Objection.

1 A. You know, I relate -- or I'm sorry, in
2 my field I relate with risk. I'm not that
3 familiar with legal definitions of causation or
4 medical definitions of causation to be able to
5 answer that part of it, but I do in my practice
6 deal with risk.

7 Q. (By Mr. Hart) Okay. Would you define
8 "risk" for me, please?

9 A. Yes. Risk is the determination if
10 there is an increased chance or probability that
11 certain exposures would result in the certain
12 agent or substance causing an effect under
13 question.

14 Q. But you're dealing with increased
15 probabilities not certainties, correct?

16 MR. GUNTER: Note my objection.

17 A. Again, from, you know, my background, I
18 don't know if there's anything such as certainty,
19 you know, because I deal with risk. So within my
20 training and my expertise, certainty is not a word
21 I -- you know, I technically use. It is risk.
22 Risk above the normal population.

23 Q. (By Mr. Hart) As an industrial
24 hygienist, do you recognize individual
25 susceptibility?

1 A. Based on -- in what situation? I need
2 to know more specifics.

3 Q. In generally in human beings, do you
4 recognize that there are individual
5 susceptibilities?

6 A. You know, for -- you know, certainly
7 because of immunocompromised situations, older
8 people, younger people, there are variations
9 within populations based on a variety of factors
10 that may or may not apply to every situation.

11 Q. All right. With regard to asbestos, do
12 you agree that there's an individual
13 susceptibility with regard to asbestos diseases?

14 A. I don't know that there's been any real
15 reliable data in evidence in the literature that
16 supports that.

17 Q. So it's your opinion that there's no
18 individual susceptibility with regard to asbestos
19 diseases in your practice?

20 MR. GUNTER: Note my objection.

21 A. What I'm saying is that I don't believe
22 the literature really spells out if there are,
23 what those are in any kind of reliable fashion.

24 Q. (By Mr. Hart) That's your opinion
25 today in 2010, correct?

1 A. Yes.

2 Q. And so persons equally exposed will
3 have equal disease; is that your testimony?

4 A. No. What my testimony was is I don't
5 believe the literature is developed from that
6 standpoint to really set out what those parameters
7 are.

8 Q. Regardless of what the parameters are,
9 do you believe that in fact there is individual
10 susceptibility?

11 MR. GUNTER: Objection.

12 A. Without the body of literature of
13 supporting that, I don't really have an opinion on
14 that.

15 Q. (By Mr. Hart) Okay. If people are
16 working side by side in an asbestos work
17 environment, do you believe that they will always
18 react the same?

19 MR. GUNTER: Objection. Asked and
20 answered.

21 A. Again, you know, it depends on dose.
22 It depends on a lot of different situations. But
23 again, the literature is not well-developed and so
24 I don't have an opinion on that.

25 Q. (By Mr. Hart) Okay. So assuming two

1 people have the same dose, same work practices,
2 same history of exposure to asbestos, you're --
3 you don't have an opinion as to whether or not
4 they both would get the same disease; is that
5 fair?

6 MR. GUNTER: Objection to the
7 form.

8 A. Yeah. I think I've answered it the
9 best I can.

10 Q. (By Mr. Hart) What I said is a correct
11 statement?

12 MR. GUNTER: Objection. Form.

13 A. I'm sorry. Could you repeat it?

14 Q. (By Mr. Hart) Sure. If two people --
15 assume for the purposes of this question that two
16 people work side by side and have the same work
17 exposure to asbestos over their career. Are you
18 able to offer an opinion as to whether or not they
19 will both develop the same disease?

20 MR. GUNTER: Objection.

21 A. You know, from my view they have the
22 same risk in terms of if their doses were the
23 same, if their exposures levels were the same and
24 that type of thing. If there are differences,
25 again, I don't believe that the literature is

1 developed enough to address those at this point.

2 Q. (By Mr. Hart) Okay. Let me get -- go
3 at it from a slightly different view. Do you
4 believe that persons with the same risk always
5 develop the same disease?

6 A. No. We know that a hundred percent of
7 people exposed do not develop the same disease.

8 Q. Some people with a lower risk will
9 develop disease when some people with a higher
10 risk will not; is that fair?

11 A. Certainly, you know, we can --
12 certainly we see variations in who gets disease
13 and who doesn't.

14 Q. You have some tables summarizing
15 Mr. Sunday's, as you called it, potential
16 exposure, pages 5 through 29 of your report?

17 A. Yes.

18 Q. Did anyone assist you in preparing that
19 table?

20 A. No.

21 Q. Do you have an assistant who reviews
22 depositions and summarizes them for you?

23 A. No. I have somebody who proofreads,
24 but I put this information together.

25 Q. Did you provide Mr. Gunter or

1 Mr. Rasmussen's office any drafts of your report
2 before April 29th?

3 A. No. This is my report.

4 Q. What references did you bring with you?

5 A. I brought, again, many of the papers
6 that are referenced in the report. I can go
7 through each one of them if you want.

8 Q. Sure. I'll check them off. Go ahead
9 and tell me which ones you have.

10 A. Okay. The AIHA, "Asbestos, all forms."
11 And I'll go ahead and just read the author unless
12 there's more than one. Acheson; Armstrong;
13 Balzer; Bernstein, "The health effects of
14 chrysotile"; Bernstein, "The biopersistence"; then
15 there is a second Bernstein in 2005, "The
16 biopersistence"; Boelter, and that would be the
17 AIHA Journal in 2002; then Boelter, "Exposure
18 assessment: Engine gaskets" 2004; Dumortier --
19 I'm sorry that's Boutin is the senior author;
20 Case; Cheng; portions of Churg, in particular some
21 excerpts from Chapter 10 of his book; then Churg,
22 "Fiber burden and patterns of asbestos-related
23 disease," and that is the one "in workers with
24 heavy mixed amosite and chrysotile exposure"; then
25 Churg, "Fiber burden and patterns of

1 asbestos-related disease in chrysotile miners and
2 millers"; the EPA, "Asbestos-Containing Materials
3 in Schools"; "National emission standards for
4 asbestos," again EPA; Goodman; Hessel; Kaplan;
5 Iloren.

6 Q. I'm sorry, what was that?

7 A. Iloren, I-L-O-R-E-N (sic).

8 Q. You said Kaplan before that?

9 A. Yes.

10 Q. That's not on here. I don't see that
11 on your --

12 A. I'm sorry, it might -- it's probably
13 under Hughes. Kaplan was the other. Hughes is
14 the author.

15 Q. Okay.

16 A. Liukonen.

17 Q. Both of them?

18 A. No. The published one in 2005.

19 Q. Okay.

20 A. Lynch; Mangold in 2006; Mangold in
21 1982; A. D. McDonald in 1997; A. D. McDonald in
22 1980; J. C. McDonald in 1993; J. C. McDonald in
23 1977; Mulhausen; OSHA -- I'm sorry, the OSHA
24 Regulation 1926.1101; Paustenbach, and that was in
25 2000; Paustenbach 2005; an excerpt from Victor

1 Roggli's book, excerpt from Chapter 3; Roggli
2 1993; Roggli 2002; Roggli 2008; Roggli 2008, the
3 one that is "Twenty-five years"; Selikoff, "The
4 occurrence of asbestosis"; Selikoff 1970; Spencer,
5 "Exposure assessment." And let me give you a
6 little bit more on that title.

7 Q. 2001 or 2003?

8 A. That one is the 2001.

9 Q. That's all I need.

10 A. Okay. And then Spencer 2003; Spirtas;
11 Stanton and that's Stanton 1981; and Stanton 1977;
12 Teta 2007; Teta 1983; Wagner; Weill 1994; Weill
13 1979; and Williams 2007.

14 Q. Okay. In the last paragraph of your
15 report, the last sentence of your report you
16 indicate "non-asbestos-associated risks of
17 mesothelioma have been reported." Do you know
18 where I am?

19 A. Yes.

20 Q. Are there any non-asbestos-associated
21 risks that you find relevant in this particular
22 case?

23 A. No, I did not notice any.

24 Q. Now, would you agree generally that
25 there are scientists and doctors who believe that

1 chrysotile can cause mesothelioma, first of all?

2 A. I would want to take a look at, you
3 know, specific reports to see, you know, my
4 opinion on the reliability of those.

5 Q. I'm not asking you that, ma'am.

6 A. So I don't know that I can, you know,
7 answer that in general. Certainly as a general
8 statement, you know, I'm aware there is literature
9 out there. Whether or not it's reliable would be
10 the thing that I would want to look at on an
11 individual basis.

12 Q. That's what I'm asking. Are you aware
13 that there's literature indicating that chrysotile
14 is the cause of mesothelioma?

15 A. Again, I don't know that I would say
16 it's indicating. I know there's literature out
17 there in which authors have stated that. However,
18 again, I would want to look at the specific study
19 and evaluate the data.

20 Q. Are you aware that for regulatory
21 purposes in the United States, chrysotile is
22 treated the same as amosite and crocidolite?

23 MR. GUNTER: Note my objection.

24 A. Yes, I am aware of that.

25 Q. (By Mr. Hart) Are you aware that the

1 World Health Organization and the International
2 Agency for Research on Cancer indicates that
3 chrysotile is the cause of mesothelioma in human
4 beings?

5 MR. GUNTER: Objection.

6 A. Again, as a general statement, I am
7 aware of that. Again, it would be subject to my
8 evaluation of the specifics of that.

9 Q. (By Mr. Hart) Are you familiar with
10 their reassessment in 2009 and their publication
11 relating to that?

12 A. As far as the entire citation -- who --
13 what agency and what's the citation?

14 Q. International Agency for Research on
15 Cancer, "Special Report: Review of Human
16 Carcinogens Part C: metals, arsenic, dust, and
17 fibers."

18 A. You know, I'm aware. It's been a
19 little while since I've read that. Again, I would
20 want to look at the specifics of it, but I am
21 generally aware of that.

22 Q. They state that, "Epidemiological
23 evidence has increasingly shown an association of
24 all forms of asbestos, parenthesis, chrysotile,
25 crocidolite, amosite, tremolite, actinolite, and

1 anthophyllite, closed parenthesis, with an
2 increased risk of lung cancer and mesothelioma."

3 Are you aware of that statement they make?

4 MR. GUNTER: Objection.

5 A. You know, I'm aware of the statement.
6 Again, I would want to review it more closely in
7 terms of the context.

8 Q. (By Mr. Hart) Do you agree or disagree
9 with the statement?

10 MR. GUNTER: Objection.

11 A. Again, I would want to look at the
12 entire report, look at the specifics of the
13 statement, doses, all the different things that
14 went into what the context of that statement is.

15 Q. (By Mr. Hart) The context of the
16 statement is in March 2009, 27 scientists from
17 eight countries met at the International Agency
18 for Research on Cancer to reassess the
19 carcinogenicity of metals, arsenic, dusts, and
20 fibers previously classified as carcinogenic to
21 humans in Group 1. Are you familiar with the
22 report?

23 MR. GUNTER: Objection.

24 A. Again, it's been a while since I've
25 looked at it. I, you know, have looked at it in

1 the past, but in order to answer your questions
2 with specificity, I would want to review it again,
3 take a look at the data, take a look at the
4 information.

5 Q. (By Mr. Hart) Are you familiar with
6 the toxicologic profile for asbestos by the ATSDR?

7 A. I've read it in the past, yes.

8 Q. Do you agree with their statement that
9 "Exposure to any asbestos type, i.e. serpentine or
10 amphibole, closed parenthesis, can increase the
11 likelihood of lung cancer, mesothelioma, and
12 non-malignant lung and pleural disorders"?

13 MR. GUNTER: Objection.

14 A. Again, as I said, I would want to
15 review the specificity of the information they're
16 relying on, the actual information before I could
17 answer that.

18 Q. (By Mr. Hart) You're not in a position
19 to agree or disagree with the report?

20 A. Correct. I'd want to specifically read
21 it.

22 Q. In their statement that "Despite the
23 dispute in scientific literature, US and
24 international agencies concur that exposure to any
25 type of asbestos, including chrysotile, can

1 increase the risk for asbestosis, mesothelioma,
2 and lung cancer in humans"?

3 MR. GUNTER: Objection.

4 A. Again, as I stated, I'd want to read
5 it. As I sit here, I'm not in a position to agree
6 or disagree with that. I'd want to look at the
7 articles they're referring to, the data they're
8 referring to.

9 Q. (By Mr. Hart) The articles they're
10 referring to include EPA 1986, the IARC 1987, and
11 World Health Organization 1998.

12 MR. GUNTER: Objection.

13 A. And those aren't studies, so I'd want
14 to look at the underlying studies.

15 Q. (By Mr. Hart) Do you agree that OSHA
16 in its publications have disagreed with your risk
17 assessment concerning chrysotile?

18 MR. GUNTER: Objection.

19 A. In what way or what -- I need a little
20 bit more information.

21 Q. (By Mr. Hart) Tell me what your risk
22 assessment concerning chrysotile is.

23 A. As I stated before, if chrysotile is
24 related to pleural mesothelioma risk or increased
25 risk of getting pleural mesothelioma, it is at

1 very high doses, the 100 to 200 fiber per
2 cc-years, if at all.

3 Q. And you keep saying if it is or isn't
4 and if at all, so you're not willing to concede at
5 the moment that there is a risk; is that correct?

6 A. Correct. Because those fiber doses are
7 very, very large and in my experience from a
8 practical standpoint, can't imagine that it
9 wouldn't be mixed fiber because we're talking
10 about friable materials in order to create those
11 kinds of exposure levels. So from a practical
12 standpoint, I can't imagine a situation in
13 industry that that would happen that wouldn't be
14 with friable insulation materials.

15 Q. It's your opinion as a practical matter
16 chrysotile will not cause mesothelioma in human
17 beings, correct?

18 MR. GUNTER: Asked and answered.

19 A. What my statement was, and I'll go
20 ahead and repeat it, is that if it does, it is at
21 those previously stated very, very high dose
22 levels.

23 Q. (By Mr. Hart) And it's your opinion
24 that those high dose levels are not likely to
25 occur?

1 A. Not from pure chrysotile exposure in
2 industry.

3 Q. And you told me earlier that you kept
4 abreast of the OSHA publications concerning
5 asbestos, correct?

6 A. Yes, as they relate to my field.

7 Q. And are you familiar with statements by
8 OSHA that differ from your assessments of the risk
9 of exposure to chrysotile?

10 MR. GUNTER: Objection.

11 A. I would want to see what those specific
12 statements are in order to answer that question.

13 Q. (By Mr. Hart) You don't recall OSHA's
14 risk assessment concerning asbestos?

15 MR. GUNTER: Objection.

16 A. OSHA, you know, has a lot of
17 information with regards to that, so I would want
18 to know what the specific statement is.

19 Q. (By Mr. Hart) You're familiar with
20 what the Consumer Product Safety Administration
21 risk assessment concerning asbestos has been?

22 A. Not -- not specifically. I looked at
23 it years ago, but not -- today I'm not that
24 familiar with it.

25 Q. Do you recall generally they did a risk

1 assessment of exposures to joint compounds?

2 A. I don't recall that.

3 Q. Do you recall that the Consumer Product
4 Safety Commission following its risk assessment of
5 joint compounds in household use decided to ban
6 asbestos-containing joint compounds for consumer
7 use?

8 MR. GUNTER: Objection to the
9 form.

10 A. I'm not familiar with that.

11 Q. (By Mr. Hart) You've never read that?

12 MR. GUNTER: Objection.

13 A. If I had, it's been a while ago, but
14 I'm not currently familiar with it.

15 Q. (By Mr. Hart) Do you agree that the
16 special limit values or the PELs published by OSHA
17 are aimed at preventing asbestosis and not cancer?

18 A. The original ones, the early ones were
19 based on the British Occupational Health Standard
20 which was designed for the protection of
21 asbestosis, so -- and, again, as it relates to
22 amphiboles, those early levels I believe are not
23 protective for risk of amphiboles for
24 mesothelioma.

25 Q. Do you agree that the OSHA recommended

1 PEL of .1 fibers per cc is based upon the lowest
2 detectable limit using methods available in the
3 field?

4 A. No. You can get lower limits of
5 detection.

6 Q. But do you agree that OSHA based it on
7 that level due to the ease of detection in the
8 field for compliance purposes?

9 MR. GUNTER: Objection.

10 A. No, I don't think that's the entire
11 reason for that because, again, the detection
12 level is very easy to increase or make better. So
13 no, I don't.

14 Q. (By Mr. Hart) Do you have the '94 OSHA
15 Standard with you?

16 A. I have a 1926.1101 version that the
17 edition is 7102.

18 Q. Well, since I don't have what you -- I
19 don't know what you're looking at, let me just ask
20 you if you agree with this statement in the 1994
21 Federal Register, "PELs lower than 0.1 fibers per
22 cc would be particularly unsuitable as compliance
23 criteria because it is difficult to reliably
24 measure lower levels."

25 MR. GUNTER: Objection.

1 A. Yeah, I disagree with that. It's
2 technically easy to measure lower levels.

3 Q. (By Mr. Hart) Do you agree that the
4 PEL and the action level under OSHA still present
5 residual risk to employees which are significant?

6 A. It depends on the fiber type we're
7 talking about. For crocidolite, I think there's
8 potential. For chrysotile, I don't.

9 Q. Fall 1994 OSHA reaffirmed its risk
10 assessment and decided to treat all fiber types
11 the same?

12 MR. GUNTER: Objection.

13 A. Yes, I'm aware of that.

14 Q. (By Mr. Hart) And that particularly
15 OSHA reviewed evidence submitted in support of the
16 claim that chrysotile asbestos is less toxic than
17 other asbestos fiber types and found that that
18 evidence was unpersuasive to OSHA?

19 MR. GUNTER: Objection.

20 A. I'm familiar with that statement.

21 Q. (By Mr. Hart) OSHA adopted the
22 position that the evidence cannot answer with
23 certainty if one fiber of amphibole is more
24 dangerous than one fiber of chrysotile.

25 MR. GUNTER: Objection.

1 A. Again, I'm familiar with that
2 statement.

3 Q. (By Mr. Hart) Are you familiar that
4 OSHA criticized the lung burden studies done by
5 many, including those cited in your references by
6 Dr. Churg?

7 MR. GUNTER: Objection.

8 A. Yeah, I'm familiar with that statement.

9 Q. (By Mr. Hart) Do you have an opinion
10 as to what the background levels of exposure to
11 asbestos would be in someone living in
12 Massachusetts?

13 A. The background levels, you know, vary
14 certainly over time and over -- you know, over
15 locations. A general good average my opinion is
16 in the neighborhood of .008 fibers per cc.

17 Q. .008. Are you aware that the United
18 States Public Health Service has estimated that
19 the background rates are much lower?

20 A. That number varies quite a bit. I've
21 seen numbers that are much higher. I've seen
22 numbers that are much lower. So depending on what
23 information one's looking at, there is a wide
24 range in that number. So .008 I think is a fair
25 middle-of-the-road representation of that.

1 Q. Well, in the toxicological assessment
2 of asbestos are you familiar that the estimation
3 that there is point and it's five zeros and then a
4 one fibers per cc of asbestos in rural areas and
5 tenfold higher in cities?

6 MR. GUNTER: Objection.

7 A. Yes. And, again, depending on the
8 reference, and that's one of them, but depending
9 on the reference, that range varies quite a bit.

10 Q. (By Mr. Hart) And if it was tenfold
11 higher, then it would be .0 with four zeros and
12 then a one, correct?

13 MR. GUNTER: Objection.

14 A. Yeah, ten times that number is one less
15 zero.

16 Q. (By Mr. Hart) Ten times that number is
17 one less zero after the decimal, correct?

18 A. Correct.

19 Q. Do you believe there's a safe level of
20 exposure to asbestos -- to chrysotile asbestos?

21 A. Yes, demonstrated by the fact that
22 there are asbestos fibers in -- chrysotile
23 asbestos fibers in everyone's lung tissue and we
24 don't see asbestos disease in the
25 non-occupationally exposed population.

1 Q. Do you believe there are mesotheliomas
2 occurring in the non-asbestos-exposed population?

3 A. Yes.

4 Q. Are those attributable to the asbestos
5 fibers that are found in the lungs?

6 A. No. I don't believe that there are
7 mesotheliomas in the general population
8 attributable to non-asbestos sources.

9 Q. You say they are or are not?

10 A. That there are non-asbestos-related
11 mesotheliomas in the general population.

12 Q. Are there asbestos-related
13 mesotheliomas in the general population?

14 A. I've not seen data supporting that.

15 Q. Your statement was that you believe
16 there's a safe level of exposure to asbestos
17 because fibers occur in the general population
18 without asbestos disease, correct?

19 A. Correct. And that level has not
20 changed in women. That to me suggests and
21 supports that there's not mesothelioma related to
22 chrysotile in the general population.

23 Q. And there are mesotheliomas occurring
24 in people with no more than the general number of
25 asbestos fibers of the general population,

1 correct?

2 A. Correct. Which I believe to be due to
3 non-asbestos causes.

4 Q. Okay. And you understand that others
5 believe they may be due to the asbestos that's in
6 the lung?

7 A. There may be, you know, other opinions
8 out there on that.

9 Q. Are you familiar with Dr. Gunter
10 Hilgendorf's opinion about that?

11 A. No.

12 Q. Do you believe there's a safe level of
13 exposure to crocidolite?

14 A. Crocidolite I believe has the highest
15 potential, highest risk, so there probably is
16 some, but I think it's the lowest dose of all the
17 asbestos commercial materials.

18 Q. Are you able to tell me what a safe
19 level of exposure to crocidolite is?

20 A. Not comfortably, no.

21 Q. Do you have -- for the purposes of this
22 case, did you assume that Mr. Sunday had an
23 asbestos-related mesothelioma?

24 A. Yes.

25 Q. Did you form an opinion as to what

1 exposures increased his risk of developing the
2 mesothelioma?

3 A. Yes. I believe it is -- was with his
4 work with and around insulation.

5 Q. Does that include insulation on board
6 US --

7 A. I'm sorry, you cut out. On board what?

8 Q. In the US Navy.

9 A. Yes.

10 Q. And does it include insulation after
11 the time he left the Navy?

12 A. Yes.

13 Q. Does it include insulation he was
14 required to encounter as part of his work on
15 asbestos-containing gaskets?

16 A. I think all thermal and
17 amphiboles-contained insulation had the potential
18 for adding to his risk and adding to his
19 cumulative dose.

20 Q. In assessing someone's risk from a
21 particular task, do you agree that you should look
22 at all components of that task and not just
23 individual parts of it?

24 A. Yes, I do.

25 Q. And if someone is assigned to remove

1 and change a chrysotile-containing gasket on a
2 flange and he has to cut through or remove
3 amphibole-containing insulation to get to the
4 flange, do you agree that all those exposures
5 should be assessed?

6 A. Yes. One should assess all potential
7 sources of exposure and evaluate them to see what
8 their potential contribution might be.

9 Q. That's good industrial hygiene
10 practice, in your opinion?

11 A. Yes.

12 Q. Do you agree that asbestos exposures
13 are cumulative in producing a risk?

14 A. It depends on what asbestos minerals
15 we're talking about. Certainly the amphiboles are
16 more biopersistent and remain in the lung tissue
17 and in the body for much longer periods of time,
18 as opposed to chrysotile that is very low
19 biopersistence and so it does not have the
20 cumulative effect that the amphiboles do.

21 Q. Have you examined studies showing the
22 biopersistence of asbestos fibers in the pleural
23 tissues?

24 A. Yes.

25 Q. And you agree that those studies show

1 that chrysotile has an equal or greater
2 biopersistence in rural areas than amphiboles?

3 A. No.

4 Q. You don't agree with that?

5 A. I do not agree with that.

6 Q. In the studies by Dr. Suzuki in that
7 regard?

8 A. Correct, I do not agree with that.

9 Q. Dr. Sebastien?

10 A. I do not agree with that.

11 Q. You don't find Dr. Sebastien's results
12 reliable?

13 A. What was the name of that study of
14 Sebastien's?

15 Q. The 1980 publication on that published
16 in the Biological Effects of Asbestos, conference
17 hosted by International Agency for Research on
18 Cancer.

19 A. I would want to read that. I don't
20 specifically recall that. I specifically recall
21 Suzuki, but I don't specifically recall
22 Sebastien's, so I'd want to take a look at that
23 reference.

24 Q. You don't find Suzuki's papers
25 reliable?

1 A. I do not -- regarding that specific
2 issue, I do not.

3 Q. Why not?

4 A. Because he didn't sample in the
5 appropriate spots where -- in the tissue they are
6 cleared out through the stomatas and that's where
7 the amphiboles congregate. The tissue deposition
8 is not homogeneous, so it -- I don't believe they
9 sampled in the appropriate spots to adequately
10 represent how that works.

11 Q. Which area should he have sampled, in
12 your opinion?

13 A. In the stomatas.

14 Q. Spell that. I can't understand you.

15 A. S-T-O-M-A-T-A-S.

16 Q. And you understand that he sampled
17 general pleural fluid?

18 A. Yes.

19 Q. Do you have an opinion as to how
20 asbestos fibers move from the lung to the pleural
21 area?

22 A. The clearing mechanism through the
23 mesothelial cells is into the stomata, so that's
24 where the fibers would move through. That's where
25 the amphibole fibers then aggregate.

1 Q. The pleural fluid?

2 A. I'm sorry?

3 Q. Is it through the pleural -- into the
4 pleural fluid?

5 A. I don't know if it's directly with
6 pleural fluid, but -- well, it would be because of
7 the draining, but I'm not as familiar with that
8 specific mechanism. But I do know that the
9 clearing -- the pathway for clearance is through
10 the stomatas and that's where the amphibole fibers
11 aggregate.

12 Q. Is that a part of the lymphatic system?

13 A. I don't know that I would call that
14 part of the lymphatic system.

15 Q. So you're saying the stomata is the --
16 is what, a -- it goes through the tissue directly
17 into the pleura?

18 A. What I'm saying is that's a structure
19 in the pleura through which the asbestos fibers
20 pass as part of the clearing mechanism and the
21 drainage mechanism.

22 Q. Tell me what you're calling a stomata?

23 A. It is the pore, the opening in that --
24 in the pleura.

25 Q. And how does the fiber get out of the

1 lung into that pore opening in the pleura?

2 A. That's where it drains into.

3 Q. What drains in there?

4 A. That is where the -- from the lung from
5 the contaminates, the particles of the fluids that
6 drains, you know, through that area.

7 Q. That pore is a hole. You're saying
8 holes in the pleura, correct?

9 A. That's what the stomata is.

10 Q. So are you saying that the fibers
11 physically pass through the lung tissue into the
12 stomatas in the pleura?

13 A. What I'm saying is that they pass
14 through the stomata and that is where the
15 amphibole fibers aggregate.

16 Q. What source do you have for that?

17 A. Boutin. Physiology sources. I mean,
18 there's a variety of non-asbestos sources that
19 explain that. But Boutin is an asbestos reference
20 that talks about that. There are a couple of
21 other ones that I don't have with me that talk
22 about that process.

23 MR. HART: Attach that Boutin
24 paper as the next exhibit, please.

25 (Deposition Exhibit No. 5 was

1 marked for identification.)

2 MR. HART: I was just going to
3 suggest why don't we take a -- maybe a five-minute
4 break.

5 MR. GUNTER: Sure.

6 MR. HART: Is that agreeable with
7 everyone?

8 MR. GUNTER: Yeah.

9 MR. HART: Thanks. I don't have a
10 whole lot more.

11 MR. GUNTER: Okay.

12 (A brief recess was taken.)

13 Q. (By Mr. Hart) Let me ask you a couple
14 of questions about the article, if I may. In the
15 Boutin study, the majority of the fibers they
16 found were less than 5 microns in length; is that
17 correct?

18 A. What they found is 22 1/2 percent of
19 fibers were greater than 5 microns in length in
20 the black spots.

21 Q. Is what I said correct?

22 A. I'm sorry?

23 Q. Is what I said correct?

24 A. Yes, because I believe you said the
25 majority were less than 5 microns.

1 Q. That's exactly what I said. Did I
2 state a correct statement?

3 A. Yeah. I'm sorry, you're cutting out a
4 lot, so I'm having a little bit of hard time
5 hearing you.

6 Q. The majority of the fibers found by
7 Boutin were less than 5 microns in length,
8 correct?

9 A. Yes.

10 Q. Boutin supports the proposition that
11 short fibers migrate to the pleura with greater
12 regularity than long fibers; is that correct?

13 A. No, I don't think so. That could be
14 due to the breakdown of the chrysotile fibers.
15 There's a lot things that could be due to.

16 Q. So Boutin just found amphibole fibers,
17 did they not?

18 A. No. Amphibole fibers outnumbered the
19 chrysotile fibers.

20 Q. Well, wasn't 95 percent of the fibers
21 amphibole?

22 A. I don't recall the exact percentage
23 breakdown.

24 Q. Let's say over 90 percent. Would you
25 agree with that?

1 A. I'd have to read the article to get the
2 exact number. I don't recall the exact number
3 breakdown right now.

4 Q. And do you recall that Boutin when he
5 analyzed the lung tissue, did not find any
6 chrysotile in the lung?

7 A. Again, I'd have to reread it.

8 Q. Is there any evidence that the persons
9 studied in Boutin were exposed to chrysotile?

10 A. I don't recall the specific population
11 history of the individuals. You know, certainly
12 they're exposed to chrysotile from the background
13 of chrysotile at least.

14 Q. Would you agree that in Boutin's
15 conducted analysis, 99 percent of the fibers in
16 the lung were amphibole and 95 percent of the
17 fibers in the pleura were amphiboles?

18 A. No. Again, I'd have to reread that.

19 Q. Do you believe that or do you have an
20 opinion as to whether or not fibers less than 5
21 microns in length can cause mesothelioma?

22 A. My opinion is that fibers less than
23 5 microns in length are not biologically active.

24 Q. So would you agree that 78 percent of
25 the fibers found by Boutin that were amphibole are

1 not biologically active?

2 MR. GUNTER: Objection.

3 A. My opinion is that the fibers less than
4 5 microns would not be the ones that are
5 biologically active regardless if they're
6 amphiboles or not.

7 Q. (By Mr. Hart) What I said is a correct
8 statement?

9 MR. GUNTER: Objection.

10 A. I believe you did.

11 Q. (By Mr. Hart) Are you familiar with
12 studies of others to try to replicate Boutin's
13 findings were unable to do so?

14 A. Again, I'd want to look at the specific
15 studies. I can't think of any of the specific
16 ones right now.

17 Q. Are you familiar with the paper by
18 Mueller?

19 A. No, I don't recall that one.

20 Q. Boutin didn't directly in his paper
21 criticize or refute either Sebastien or Suzuki,
22 correct?

23 MR. GUNTER: Objection.

24 A. His paper was not one evaluating other
25 studies. His paper was one reporting his results.

1 Q. (By Mr. Hart) In reporting his
2 results, he did not criticize either Sebastien or
3 Suzuki; is that correct?

4 MR. GUNTER: Objection.

5 A. Again, I need to read it. I don't
6 recall that he discussed their papers in his
7 narrative or in his text of his paper.

8 Q. (By Mr. Hart) Do you agree that the --
9 that of the fibers found in the pleura, whether
10 they're amphibole or chrysotile, the majority of
11 them are less than 5 microns in length?

12 A. In this study, in the -- in the black
13 spots, 22 percent -- 22 1/2 percent were greater
14 than 5 microns. The majority were less than 5
15 microns.

16 Q. In other studies, too, those same
17 findings bear out?

18 A. I'm not -- I don't have those other
19 studies with me to be able to answer that
20 question.

21 Q. So as of right now you don't have an
22 opinion one way or the other?

23 A. Not without reviewing those specific
24 studies.

25 Q. Have you performed any work practice

1 simulations regarding asbestos work practices
2 during your career?

3 A. No.

4 Q. Have you ever conducted an
5 epidemiological study?

6 A. Epidemiology is something that I use in
7 my industrial hygiene and public health practice
8 all the time, so it's --

9 Q. Just answer my question.

10 A. Well, I am answering your question.

11 Q. Well, I'd like an answer to the
12 question and not a statement of other things.

13 MR. GUNTER: She was answering the
14 question until you interrupted her. Go ahead,
15 Dr. Flinn.

16 Q. (By Mr. Hart) Have you conducted an
17 epidemiological study?

18 MR. GUNTER: Dr. Flinn, continue
19 with your prior answer.

20 A. It's -- I conduct epidemiological
21 studies all the time in my industrial hygiene and
22 public health practice. I evaluate
23 epidemiological parameters as part of my normal
24 consulting.

25 Q. (By Mr. Hart) Give me an example -- or

1 have you ever done an epidemiological study on
2 asbestos?

3 A. What do you mean by "epidemiological
4 study"?

5 Q. The way you just used it, ma'am.

6 A. Again, it's something that -- it's a
7 tool -- epidemiology is a tool, it's an evaluation
8 technique that I use all the time in my practice.
9 So anything I look at in terms of risk is part of
10 using epidemiology.

11 Q. I'm not asking whether you're using
12 epidemiology. I asked you if you've ever done an
13 epidemiological study regarding asbestos. Have
14 you, yes or no?

15 MR. GUNTER: Objection. It was
16 answered.

17 A. You know, I answered it the best I can.
18 It's a tool I use in my practice. If you have a
19 different definition of what you're referring as
20 an epidemiological study, I'll be happy to answer
21 that.

22 Q. (By Mr. Hart) Describe for me the most
23 recent epidemiological study you've done regarding
24 asbestos.

25 A. Again, it's a common thing I use --

1 Q. Tell me the most recent. I'm asking
2 you to define -- to describe for me the most
3 recent one, please, ma'am.

4 A. Yeah, I'm not sure what you're asking.
5 That's why I'm having difficulty answering your
6 question.

7 Q. You certainly had no difficulty in
8 giving me an answer to the question a few moments
9 ago in the way that you wanted and I'm asking a
10 very precise question. Give me the last
11 epidemiological study you've done regarding
12 asbestos.

13 MR. GUNTER: Note my objection.

14 A. You know, I can't recall any specific
15 dates, times because it's just such a normal tool
16 I use.

17 Q. (By Mr. Hart) Right. Have you ever
18 published an epidemiological study regarding
19 asbestos?

20 A. I have not published anything regarding
21 asbestos.

22 Q. Tell me what you define epidemiological
23 study to be?

24 A. Epidemiology is a tool, as I said, that
25 is commonly used in industrial hygiene and public

1 health in which it's about person, place, and
2 time. It's about who gets sick, where they are
3 when they get sick, and when they get sick. So
4 from that standpoint, it is a very important tool
5 in what I do and a part of almost every assessment
6 that I conduct.

7 Q. You described epidemiology. I'm asking
8 about epidemiological studies.

9 A. That to me is epidemiological study.

10 Q. Have you ever done an epidemiological
11 study with -- comparing control -- with control
12 samples or control groups?

13 A. That's part of assessing who gets sick,
14 where they are when they get sick, and when they
15 get sick, so you compare who gets sick to who
16 doesn't get sick. So that's part of that process.
17 That's part of that activity.

18 Q. Have you ever designed an
19 epidemiological study with controls for asbestos?

20 MR. GUNTER: Objection.

21 A. Again, I'm not sure -- it sounds to me
22 like you're asking have I -- I'm not sure what
23 you're asking. That's the problem I'm having.

24 Q. (By Mr. Hart) What don't you
25 understand, what I mean by epidemiological study?

1 A. Yes. If you can define what you're
2 asking, how you define epidemiological study, I'd
3 be happy to answer it.

4 Q. Have you ever done research using
5 controls in an epidemiological fashion regarding
6 asbestos?

7 MR. GUNTER: Objection.

8 A. All of my work is field related. I
9 have not done a -- like a research project in a
10 university or that type of thing, if that's what
11 you're asking. My use of epidemiology is from a
12 practical, day-to-day standpoint.

13 Q. (By Mr. Hart) How much of your time is
14 spent working with Finn Consulting Services?

15 A. It varies, you know, a bit. Forty
16 to -- 30 to 50 percent, somewhere in that
17 neighborhood.

18 Q. Besides Ingersoll-Rand, for whom have
19 you done asbestos litigation consulting?

20 A. I've done other clients that include
21 Lincoln Electric, Dana Corporation, Abex. I did a
22 couple of cases for Chesterton.

23 Q. Is that all?

24 A. That's all I recall. I think that's
25 all of them.

1 MR. HART: Thank you, ma'am.

2 That's all the questions I have.

3 THE WITNESS: You're welcome.

4 MR. GUNTER: Thank you, Tom.

5 Witness will review and sign.

6 (The deposition concluded at 3:59

7 p.m.)

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RE: Sunday, et al., vs. Advocate Mines, et al.

PG/LN	Correction and Reason for Change
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MARY H. FINN, PhD

BAM

1 RE: Sunday, et al., vs. Advocate Mines, et al.

2
3 ____ I certify that I have read my testimony and
4 request that NO changes be made.

5
6 ____ I certify that I have read my testimony and
7 request that the above changes be made.

8
9
10
11 _____
12 MARY H. FINN, PhD

13
14
15 Subscribed and sworn to before me
16 this ____ day of _____, 20____

17
18
19 _____
20 Notary Public

21 State of _____

22 County of _____

23 My commission expires _____

24
25 BAM

C E R T I F I C A T E

I, Barbara A. Mitchell, a Certified
Court Reporter of the State of Missouri, do hereby
certify:

That prior to being examined, the
witness was first duly sworn;

That said deposition was taken down by
me in shorthand at the time and place hereinbefore
stated and was thereafter reduced to typewriting
under my direction;

That the foregoing transcript is a true
record of the testimony given by said witness;

That I am not a relative or employee or
attorney or counsel of any of the parties or a
relative or employee of such attorney or counsel
or financially interested in the action.

Witness my hand and seal this 21st day
of May, 2010.

Barbara A. Mitchell

Missouri Supreme Court

Certified Court Reporter