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1 STATE OF MINNESOTA DISTRICT COURT
2 COUNTY OF RAMSEY SECOND JUDICIAL DISTRICT
3
4 Gordon B. Skelly and
Judy M. Skelly, Court File CV-07-4527
5 Plaintiffs,
6 vs.
7 3M Company, et al,
8 Defendants.

9 TRIAL TRANSCRIPT
10 VOLUME I (A.M.)

11 The above-entitled matter came on for trial before
12 Dale B. Lindman, Judge of District Court, at the Ramsey
13 County Courthouse, St. Paul, Minnesota, on February 20,
14 2009.

15 A P P E A R A N C E S

16 Michael Strom, Troyce Wolf, Paul Doolittle and
17 Julie Celum, Attorneys at Law, appeared on behalf of
18 Plaintiffs Skelly.

19 Lane Young, Jamie Habeck and Elizabeth O'Neill,
Attorneys at Law, appeared on behalf of Defendant Scapa
20 Dryer Fabrics.

21 Stephen Foley, Erich Gleber and Christopher
Goodman, Attorneys at Law, appeared on behalf of
22 Defendant Flowserve.
23
24
25

1		I N D E X	
2	MOTIONS:		2
3	DONNA RINGO:		
4	Cross-by Mr. Wolf		25, 108
5	Redirect-by Mr. Foley		95
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1 (Today's date is February 20, 2009 at nine
2 o'clock a.m.).

3 MS. CELUM: Your Honor, I don't have a copy of
4 my motion, they are printing that now. Basically, your
5 Honor --

6 THE COURT: Would you identify yourself --

7 MS. CELUM: Julie Celum for the plaintiffs.
8 Defendants have filed page and line designations from the
9 discovery deposition of two alleged co-workers of Mr.
10 Skelly in this case, James Hill and Steven Block.

11 Our objections for the most part rest on Rule 701
12 and 403. These guys both started at the mill after Mr.
13 Skelly. They were painters and insulators. They
14 testified I never worked with Mr. Skelly. Both of them
15 did. And the portions of the deposition that they have
16 designated are: Do you recognize this company? No. Did
17 you ever see Mr. Skelly work around this product? No.
18 And it goes on and on and on. Both of the guys say they
19 don't know what he did. Now there are portions, for
20 instance, his brake and clutch work, that they do say
21 they saw him do. I didn't object to that.

22 THE COURT: Wait a minute, I thought you
23 said --

24 MS. CELUM: I'm sorry.

25 THE COURT: I thought you said --

1 MS. CELUM: I did.

2 THE COURT: -- the two guys were there after he
3 was. So therefore --

4 MS. CELUM: They began after him. They began
5 in the '70s and '80s as painters and insulators.

6 THE COURT: They were on the site at the same
7 time.

8 MS. CELUM: They were on the site at the same
9 time. I apologize.

10 THE COURT: No. I misunderstood.

11 MS. CELUM: That was my bad. We object, number
12 one, they're discovery depositions. These are not trial
13 preservation depositions. They have not shown
14 unavailability. That aside, your Honor, none of the
15 testimony that they have designated is relevant. The
16 guys say, never worked with Mr. Skelly. This is a little
17 bit I saw him do. Then they go into all this other stuff
18 that these painters and insulators did, to attempt to
19 make the inference that somehow Mr. Skelly worked around
20 all of this insulation that these painters and insulators
21 worked around. And he didn't. That is not the evidence
22 in this case.

23 So we object in total because they are discovery
24 depositions. But then we object to the irrelevant
25 portions because, your Honor, they have no personal

1 knowledge of what Mr. Skelly did. And they say it in
2 their depos.

3 THE COURT: But they do have personal knowledge
4 of what the conditions in the plant were like, do they
5 not?

6 MS. CELUM: For themselves personally, yes.

7 THE COURT: Conditions in the plant in general.

8 MS. CELUM: They testified they never saw Mr.
9 Skelly do any of the work that they did. This is work
10 that painters and insulators did. You heard Mr. Skelly
11 on the stand say we don't cross crafts.

12 THE COURT: We have testimony, however, that he
13 removed insulation from flanges and pumps. That he
14 worked around people that were doing insulating. That he
15 worked around people that were doing various sorts of
16 jobs in the mill. And if these people are going to come
17 in and testify as to what the conditions in the mill were
18 like in those areas, I think it's relevant.

19 MS. CELUM: Your Honor, they never did that
20 around Mr. Skelly. They never asked these guys: Did you
21 ever see Mr. Skelly around when you were insulating or
22 painting or doing any of this? They never asked that
23 question. They did not, in the depositions, link Mr.
24 Skelly to the work that they were doing in the '70s and
25 in the '80s. This is not -- it has no relevance to what

1 Mr. Skelly did. They say they have no personal knowledge
2 of what Mr. Skelly did in the plant as a millwright.

3 MS. HABECK: Your Honor, if I might, Jamie
4 Habeck. I pulled out just a few excerpts from Mr.
5 Block's deposition. Do you know Gordon Skelly? Yes. Do
6 you know him as a co-worker? Yes. You both worked in
7 the maintenance department? Yes. Do you have
8 recollections of seeing with your own eyes, work he was
9 doing near you? Yes. Can you recall seeing him working
10 on equipment in the plant? Yes. I saw him working a
11 lot.

12 MR. FOLEY: If I may follow-up on that. Your
13 Honor, Mr. Hill the other witness begins working as an
14 insulator in 1975. He says: Question: What I would
15 like to know is do you have any personal recollection of
16 seeing Mr. Skelly perform work that would have caused him
17 to have to disturb the insulation on steam piping in the
18 old mill? This is page 37 of the transcript. Answer,
19 page 38. You didn't have to disturb it. It was already
20 disturbed. It was rotting away and it should have all
21 been taken off long before it was. We would walk through
22 the basement or anyplace you would find big chunks of
23 asbestos, it had fell off the steam lines and laying on
24 the floor. That is how good the paper mills took care of
25 their people and everything. Could you give me a time

1 frame for that? Was that right when you started? Yes.
2 When I started until I got moved out of that department
3 in '03.

4 You take that tomorrow as the court already
5 observed, with Mr. Skelly's testimony and Dr. Holstein's
6 testimony about re-entrainment and that it stays in the
7 atmosphere, it clearly gives the jury information about
8 the conditions in the mill that Mr. Skelly was exposed to
9 and his total asbestos exposure to that
10 amosite-containing pipe insulation.

11 There is a whole lot more in here where he talks
12 about he knows it is asbestos. He knows it's
13 Johns-Manville's asbestos. Quote, how are you familiar
14 with that name? Page 22. Because they sent a lot of
15 insulation to us to use. We also have the plant and
16 sales record that show they are buying Johns-Manville
17 thermal insulation containing asbestos, thermal asbestos.

18 As to the witness's availability or unavailability,
19 plaintiffs were there. They cross examined them. They
20 had the full opportunity to do a cross examination and
21 the witnesses live up in Grand Rapids. They live more
22 than a 150 miles away from the courthouse. They are by
23 definition unavailable. This is a desperate attempt to
24 keep out evidence, which is kind of ridiculous given the
25 status of this case at this point in time, your Honor.

1 MS. CELUM: May I respond?

2 THE COURT: Yes.

3 MS. CELUM: Mr. Hill then goes onto say, Mr.
4 Foley so conveniently left out, that he doesn't know
5 whether the insulation was asbestos-containing. That is
6 exactly what he says. I don't know if the Johns-Manville
7 insulation --

8 THE COURT: But we've had plenty of testimony
9 already that it was asbestos-containing. So where is the
10 problem?

11 MS. CELUM: Your Honor, the problem is these
12 guys never link Mr. Skelly with that. They ask all these
13 questions about painters and --

14 THE COURT: They actually, Ms. Celum, have done
15 a better job of linking these people with the asbestos
16 insulation than you did in linking it in the beginning.
17 So, I'm not going to -- I'm not sold on that argument at
18 all.

19 MS. CELUM: Well, your Honor, then we will need
20 to address each individual objection. Because I objected
21 at the deposition to certain questions. And I've drafted
22 those out. I drafted the basis of our objections to each
23 of the designated portions. They designate all the stuff
24 -- they ask: Do you recognize the name Asten? No. Was
25 Asten Dryer Felt at the mill? No. Did you ever see Mr.

1 Skelly work with Asten Dryer Felts? No.

2 THE COURT: Those objections are legitimate, if
3 that's what --

4 MS. CELUM: Then we will need to go through
5 those one by one.

6 THE COURT: I guess we will. That is what we
7 have been doing virtually every deposition transcript so
8 far. You're motion to exclude these witnesses is denied.

9 MR. YOUNG: Your Honor, if I might. What we
10 had said, if we get to one of these today, since they're
11 being read, that you can just rule on the objection as
12 the question is asked.

13 THE COURT: The problem with that is and I was
14 thinking about that as I was reading Hammer's deposition,
15 the problem with that is that you make an objection on
16 one page and I rule on it, and then you have two or three
17 pages that are affected by it. And you are trying to
18 decide at that particular moment whether or not that gets
19 read in. And that doesn't work very well. We will have
20 to go through these individually. I don't know when we
21 will do it, but we will have to do it. Probably over the
22 noon hour.

23 MS. CELUM: Thanks, your Honor.

24 MR. HABECK: Thanks, your Honor.

25 MR. YOUNG: Judge, we do want to show this this

1 morning. We need to get the video fixed.

2 THE COURT: You do. And I haven't gone through
3 all of the objections. But I can tell you where I'm at
4 with it, I read --

5 MR. YOUNG: How about if --

6 THE COURT: I'm sorry, what?

7 MR. YOUNG: Show the direct -- there weren't
8 any objections to the direct.

9 THE COURT: There were objections to the
10 direct. As a matter of fact, that is the basis of most
11 of what I'm going to be doing.

12 MS. O'NEILL: The plaintiffs didn't designate
13 -- didn't indicate they wanted to pursue these other
14 objections.

15 THE COURT: Ms. O'Neill, would you identify
16 yourself.

17 MS. O'NEILL: I'm sorry, Elizabeth O'Neill on
18 behalf of Scapa.

19 THE COURT: All right. Page 19 of Dr. Hammer's
20 deposition. Line three -- I'm sorry not line three, line
21 nine. Ms. O'Neill; at this time we would tender Dr.
22 Hammer as an expert in the area of pathology and in the
23 area of diagnosis and cause of lung disease including
24 asbestos related diseases and mesothelioma. Which I
25 think was perfectly legitimate.

1 Mr. Jeckle on behalf of the plaintiff objects and
2 says I would like to voir dire the witness please. And
3 he is allowed to do that. And the first question is:
4 Dr. Hammer, you are not an industrial hygienist, are you?
5 Answer: I am not. No. Question: Are you -- and you
6 are not a material scientist, are you? No. And you are
7 not an expert on paper making process, are you? Answer:
8 No. And you are not an expert in dryer felts, are you?
9 Answer: No. You've never been qualified by a court to
10 give an opinion on asbestos-containing products ability
11 to release asbestos fibers, have you? There was an
12 objection, but the witness's answer was no. You've never
13 authored any peer-reviewed literature on
14 asbestos-containing products ability to release asbestos
15 fibers, have you? No. Out of all of your professional
16 time, would you agree with me that none of those was
17 spent in the practice of industrial hygiene outside the
18 courtroom. Answer: I would agree with that.

19 Then he says he does review reports for industrial
20 hygienists but that is the end of it. And then he is
21 offered as an expert -- well, actually what it was Mr.
22 Jeckle said, we have no objection to his qualifications
23 as a pathologist in the diagnosis of asbestos disease.
24 But they continued their objection to his testimony that
25 has to do with any kind of industrial hygiene or the

1 release of fibers.

2 We get back then to where Mr. Foley raised his
3 objections. The question was on page 39, line 9. He
4 says, he was stated to have removed and replaced packing
5 and gaskets. Those would be major source -- this is Dr.
6 Hammer testifying. These would be major sources of
7 asbestos that he would have been exposed to while working
8 at the paper mill.

9 Has absolutely no, by his own testimony, has
10 absolutely no qualifications to make that opinion.
11 Accordingly, that objection will be sustained. And
12 practically everything that follows after that has to do
13 with him testifying to what fibers he would have been
14 exposed to and how they would have contributed to his
15 mesothelioma. The second half of that is legitimate.
16 But the first half of that is not.

17 MS. O'NEILL: Your Honor, if I may.

18 THE COURT: Yes.

19 MS. O'NEILL: Dr. Hammer was taken out of
20 order. And the questions that I asked him about the
21 thermal insulation are hypotheticals. Which are proper
22 to ask him. I'm asking him to assume the evidence is
23 going to be in the record and it will be through my
24 industrial hygienist.

25 THE COURT: But that doesn't solve the problem

1 that he is not qualified to talk about fiber release and
2 whether or not being around packing and gasket work would
3 have resulted in free fibers that might have been
4 breathed in by Mr. Skelly.

5 MS. O'NEILL: Maybe I misunderstood Your
6 Honor's comments. If you could look for me, just for
7 clarification please, on page 40 at line 14. I ask him a
8 question about; that is not gasket and packing that is
9 transite. That is a hypothetical. And I'm telling him
10 I'm going to be putting this evidence into the record.
11 Nothing to do with gaskets and packing. Nothing to do
12 with fiber release. I'm asking him a medical causation
13 question.

14 THE COURT: What I'm saying, Ms. O'Neill, maybe
15 I have haven't made it clear, that if your asking simply
16 a medical question about mesothelioma or about the fibers
17 that he breathed in, causing the disease or whatever,
18 that is fine. But if you are asking about whether or not
19 it came from packing and gaskets, or you are asking
20 whether it came from dryer felt or any other place, he
21 doesn't have the qualifications to testify to that.

22 MS. O'NEILL: Then I don't believe I asked any
23 of those questions, your Honor. So I think --

24 THE COURT: I think the problem is that you
25 did. One question. And that was the one that led to all

1 the rest of it. It's the question on page 38 --

2 MS. O'NEILL: Page 38. Based upon your review
3 do you have a reasonable degree of medical certainty as
4 the cause -- as to the source of the asbestos that did
5 cause his mesothelioma.

6 THE COURT: Right. Then you ask about specific
7 activities.

8 MS. O'NEILL: So is Your Honor's ruling that I
9 need to take out that question that starts on line 18 and
10 the whole answer?

11 THE COURT: Yes.

12 MS. O'NEILL: All right. Just so I'm clear can
13 I show you what I think I'm marking out so I do this
14 correctly?

15 THE COURT: Yeah.

16 MS. O'NEILL: I apologize for leaning over the
17 bench. Starting right here and going through here.

18 THE COURT: You are on page 38?

19 MS. O'NEILL: That is where my question starts.

20 THE COURT: Right.

21 MS. O'NEILL: Going through to 39, line 13, all
22 that is coming out?

23 THE COURT: It's further then that. Then
24 unidentified speaker objects. Was that you Mr. Foley?

25 MS. O'NEILL: So to 19?

1 MR. FOLEY: That was me, your Honor.

2 THE COURT: At least to 19.

3 MS. O'NEILL: Then we get into my hypotheticals
4 where I'm asking him to assume the things in the case.
5 And those would be okay because they are causation
6 questions?

7 THE COURT: They are okay, unless they are
8 asking you the jury to assume that he was breathing in
9 fibers from packing.

10 MS. O'NEILL: No, your Honor. It's all thermal
11 insulation.

12 THE COURT: I can tell you there are spots
13 there --

14 MS. O'NEILL: Correct, your Honor. The next
15 question -- my examination only goes through to page 42.
16 My remaining questions are only thermal insulation
17 questions. All the other questions about gaskets and
18 packing are these questions.

19 THE COURT: It isn't just gaskets and packing,
20 it's dryer felts and the whole bit.

21 MR. FOLEY: And thermal too.

22 THE COURT: Right.

23 MS. O'NEILL: I believe he just told me,
24 because I asked him this question. Question, on page 39,
25 line 25, I want you to assume for me -- I start by

1 saying, because we are taking your testimony a little bit
2 out of order, I'm going to ask for you to assume for me
3 that the record in the case will show certain things.
4 Okay. He says okay. Last line on 39, I want you to
5 assume the record in this case is going to show that in
6 1990 there were 2573 square feet of transite at the
7 Blandin Mill. I want you to assume for me that Mr.
8 Skelly has already told the ladies and gentlemen of the
9 jury that he personally cut transite and was around
10 others when he did that. Assuming those factors to be
11 correct, would that transite be an substantial factor,
12 substantial contributing factor to the development of his
13 mesothelioma.

14 And the part about Mr. Skelly is in the record. And
15 the part about the 2573, I'm going to put in the record.

16 THE COURT: You're right, that is all in the
17 record. That doesn't overcome the problem. The problem
18 is that you're asking him to give an opinion on whether
19 or not there would be free fibers in the air as a result
20 of that activity. And he disqualified himself from
21 rendering that opinion.

22 MS. O'NEILL: Your Honor, we are not asking him
23 about the free fibers. We are asking him about --

24 THE COURT: You can ask him if -- no, you
25 can't. I don't know how you get by this because --

1 MS. O'NEILL: Your Honor --

2 THE COURT: You asked if his work around
3 transite --

4 MS. O'NEILL: There wasn't even an objection at
5 the time, your Honor. That is the problem. And that is
6 the problem --

7 THE COURT: And the objection is back on the
8 previous page.

9 MS. O'NEILL: No. Your Honor, the objection on
10 the previous page is about gaskets and packing
11 specifically. There is no objection to this transite
12 question. This is the difficulty. This witness was
13 suppose to come at the end of next week in the original
14 trial schedule. So this would have been dealt with in
15 the context of the trial.

16 THE COURT: Ms. O'Neill, what I'm trying to say
17 with what he testified to at the beginning about what he
18 knew about fiber release and the whole process he
19 disqualified himself from any of that testimony.

20 MS. O'NEILL: Your Honor, there is already
21 evidence in the record. And there will be more that he
22 breathed in that dust. I have an industrial hygienist
23 who will come and talk about that.

24 THE COURT: He can testify that he breathed in
25 the dust. That doesn't mean he breathed in asbestos

1 because --

2 MS. O'NEILL: I have an industrial hygienist
3 who will come in and say that. My industrial hygienist
4 cannot give a medical causation through me. All the
5 evidence will be in the record --

6 THE COURT: You would have needed to add
7 another hypothetical to this. Assuming he breathed in
8 this dust and assume that this dust contained crocidolite
9 or whatever. That assumption isn't there.

10 MS. HABECK: Your Honor, if I could add
11 something. Dr. Holstein, Brody and Ms. Ringo have all
12 testified that there is fiber release from thermal
13 insulation products. Sorry, I'm just trying to --

14 MS. O'NEILL: Dr. Ringo testified that there
15 would be work with -- who is this?

16 MS. HABECK: Dr. Hammer.

17 MS. O'NEILL: Dr. Hammer's testimony, I said I
18 want you to assume that Mr. Skelly worked around
19 crocidolite containing amosite board.

20 THE COURT: And that is a legitimate question.

21 MS. O'NEILL: Dr. Ringo and Mr. Carlson who is
22 going to come, are going to say that the work Mr. Skelly
23 described releases asbestos fibers in the air.

24 THE COURT: That is fine. But the question
25 that you've asked here doesn't contain that hypothesis.

1 MS. O'NEILL: Your Honor, it will be in the
2 record. And the witness has testified -- Dr. Hammer is
3 one of the -- as you can tell from his qualifications, he
4 is one of the top pathologists in the country with
5 respect to the issue of medical causation of
6 mesothelioma. And while he is not an expert on
7 industrial hygiene, he relied on Mr. Carlson's report
8 which does say that.

9 THE COURT: We will have to sit down and go
10 through this transcript. If you laid out the
11 hypothetical question correctly, you're entitled to get
12 an answer. The problem is, I think in a lot of the
13 cases, you did not.

14 MS. O'NEILL: Your Honor, respectfully, I think
15 this is a little bit of eleventh hour quarterbacking
16 because I didn't have an opportunity to correct it at the
17 deposition. The witness can't come to this trial because
18 of the shortened trial schedule.

19 THE COURT: When it was objected to, you had
20 the opportunity --

21 MS. O'NEILL: It wasn't. The question before
22 is about gaskets and packing.

23 THE COURT: And you're right about that. To
24 the extent that it was not objected to, I may well let
25 that testimony that wasn't objected to go in. If there

1 is a continuing objection, then that is a different
2 story.

3 MR. WOLF: Your Honor, Troyce Wolf. Just one
4 point on that, if an expert disqualifies himself on his
5 own, there is no need -- why would we object to that? If
6 he says, no, I'm not an expert in that field. I can't
7 give opinions on that. I'm not an expert. I'm not about
8 to object to that.

9 MS. O'NEILL: Your Honor, Dr. Hammer gives this
10 opinion in cases across the country. Mr. Wolf has cross
11 examined him on this opinion. Mr. Doolittle has cross
12 examined him on this opinion. And what this is is an
13 attempt to take advantage of the fact that Your Honor has
14 shortened the trial schedule and this witness can't come
15 live.

16 THE COURT: How does the shortening of the --

17 MS. O'NEILL: Because he was --

18 COURT REPORTER: It's your record you guys.

19 MS. O'NEILL: Sorry.

20 THE COURT: How does the shortening of the
21 trial schedule which frankly isn't going to end up being
22 any shortening at all, enter into whether or not you made
23 a proper hypothetical question or whether or not a
24 witness is qualified to answer the question.

25 MS. O'NEILL: Because this witness was

1 scheduled to come testify in this trial, live on behalf
2 of Scapa, in the middle of next week. He did not have
3 another day where he could do that before then. And we
4 will be done with the evidence in this case, by the order
5 of this court, prior to then. And the only opportunity
6 we had to get his evidence to the jury was through this
7 video testimony. And had he been brought live and this
8 objection been raised, we would have fixed it.

9 THE COURT: I'm sorry, I don't see the
10 prejudice to you because the doctor can come in and
11 testify to the mesothelioma. He can testify that it was
12 caused by asbestos fibers. He could possibly even
13 testify to what asbestos fibers are involved. But when
14 you start asking him about whether or not he was exposed
15 to asbestos fibers from dryer felt or he was exposed to
16 asbestos fibers from some other source, he doesn't have
17 the qualifications to testify to that. And it took three
18 pages to tell us that.

19 MS. O'NEILL: Then, your Honor, we would ask
20 that the defendants be given the obligation if it's
21 possible to arrange for this witness to testify live
22 next week. That he come testify live next week, your
23 Honor can hear his qualifications and we can address
24 these issues. Because this is a highly prejudicial issue
25 for Scapa in this case.

1 MR. DOOLITTLE: Paul Doolittle. Your Honor,
2 just so the record reflects, I don't believe that Dr.
3 Hammer's availability in scheduling to coming next week
4 should have any relevance to the case. Because if I
5 understand Mrs. O'Neill if I had rested last Friday, then
6 they would be prejudiced. Where Dr. Hammer's schedule
7 is, the plaintiffs can't possibly have to continue their
8 case until the third week in order to get Dr. Hammer
9 here. They schedule him. They control him as their
10 witness. They have to call him in order. If he is not
11 available -- that is why we did accommodate on
12 President's Day. We didn't object, didn't complain at
13 all. Said fine, we will take the holidays, we have a day
14 off, we'll do the video dep. We did everything we could
15 to get Dr. Hammer here. Although I really didn't think
16 it necessary for us to do such. We did such in the order
17 of trying to further getting along and make sure we
18 didn't have to bring it before Your Honor. We didn't
19 object. We did Dr. Hammer by video. Saying that he is
20 unavailable until next Wednesday doesn't have relevance.
21 If the plaintiffs rested last Friday, he would still be
22 unavailable until next Wednesday.

23 MS. O'NEILL: Your Honor, we raised the issue
24 about our witnesses at the time we were advised of the
25 shortened trial schedule. It is part of what we believe

1 affects our ability to put on the defense in this case.
2 And I believe your Honor has indicated that he didn't
3 want us to raise the issue on the scheduling repeatedly,
4 so we did not.

5 With respect to this accommodation issue, plaintiffs
6 didn't go to Seattle. They called in to the video
7 deposition. I went to Seattle. So the accommodation is
8 a little bit of a red herring here.

9 THE COURT: I'm not considering that one way or
10 another.

11 MR. YOUNG: There wasn't any continuing
12 objection here. And the first question about transite
13 was unobjected to. It is an evidentiary deposition. It
14 would seem to me it would not be proper to raise that
15 objection at this time. So it seems like we ought to at
16 least be able to --

17 THE COURT: I don't disagree with you, Mr.
18 Young. I didn't disagree with Ms. O'Neill when she asked
19 that same thing. But that kind of got lost in the rest
20 of the argument. Okay.

21 MR. YOUNG: Judge, we are going to share this
22 after Ms. Ringo finishes. It looks to me like we can
23 show to, right here, (indicating), but we take out the
24 gasket and packing --

25 THE COURT: What I will ask for you to do,

1 because we should get started with the jury now is you
2 got -- I don't know who is going to do the cross
3 examination of Ms. Ringo for you --

4 MR. WOLF: I am, your Honor.

5 THE COURT: I'm talking about -- you got the
6 direct exam, that is right. Never mind.

7 MR. WOLF: You're done?

8 MR. FOLEY: I finished with my direct of Ms.
9 Ringo right at the end of the day yesterday. I believe
10 it's Mr. Wolf's turn for cross, I believe.

11 THE COURT: Right. The point that I was
12 getting to, is that have an attorney on your side Mr.
13 Young and Mr. Foley's side and the plaintiffs side, that
14 is not involved in Ms. Ringo's testimony, work on this
15 transcript and see if you can't work something out as
16 quickly as possible. Okay.

17 I'm trying to decide, Ms. O'Neill, if I'm really
18 missing something here. Frankly, I don't understand what
19 it is that Dr. Hammer can testify that you need on the
20 record that you don't already have.

21 MS. O'NEILL: I don't have opinion from a
22 medical doctor that the thermal insulation is a
23 substantial and direct cause of his mesothelioma. And
24 that is my whole defense. Dr. Hammer has testified about
25 that in cases where Mr. Doolittle and Mr. Wolf --

1 THE COURT: We have had infinite testimony --
2 infinite is probably over exaggeration, we had plenty of
3 testimony that there was insulation in this plant. That
4 Mr. Skelly was working around it. That it contained
5 asbestos fibers. In fact that it was chrysotile, I
6 believe, insulation and that he would have inhaled it.
7 You got your doctor testifying that that is what he has.
8 He has asbestos related disease. And it would have come
9 from asbestos fibers that somehow made it into his lungs.
10 But we don't -- that is all you got.

11 MS. O'NEILL: The plaintiffs are going to stand
12 up in closing and they are going to say Scapa didn't
13 bring you a doctor. No doctor testimony -- sorry.

14 MR. YOUNG: Judge, can I have a minute?

15 THE COURT: Yes, you can.

16 (Whereupon, an off the record discussion was
17 held).

18 THE COURT: All right. In any event, would you
19 work on the deposition transcript so we can get out of
20 the deposition things that are legitimately to be put on
21 the record. Thank you. Let's get started. Go get the
22 jury please.

23 (Whereupon, the jury was brought into the
24 courtroom).

25 THE COURT: Good morning ladies and gentlemen.

1 When we left off yesterday Ms. Ringo was on the stand.
2 Would you please come back up and resume the witness
3 stand.

4 Mr. Wolf, are you going to cross examine?

5 MR. WOLF: Yes, your Honor, I am.

6 THE COURT: All right. You may.

7 MR. WOLF: May I proceed, your Honor?

8 THE COURT: You may proceed as soon as she gets
9 settled here.

10 CROSS EXAMINATION BY MR. WOLF:

11 Q. You all set Ms. Ringo?

12 A. Yes, I am.

13 Q. I want to first of all just clarify a few
14 things, Ms. Ringo, first of all, you obviously are not a
15 medical doctor?

16 A. That's correct.

17 Q. And as such, I just want to clarify that as an
18 industrial hygienist, since you are not a medical doctor,
19 you cannot give any opinions and you would agree with me
20 you cannot give any opinions on causation, true?

21 A. For an individual's causation, that is true.
22 But for a group of workers that is what we do.

23 Q. Well, but industrial hygienists talk about
24 risk?

25 A. Risk to a group. What might cause a certain

1 disease to develop in a group of workers exposed to these
2 levels.

3 Q. It's what puts people at risk for developing
4 certain diseases from various chemicals?

5 A. That's correct.

6 Q. But it's not causation. That requires a
7 medical doctor to give that opinion. You would agree
8 with me on that, right?

9 A. Yes.

10 Q. Okay. Just want to clarify that. Industrial
11 hygienists talk about risks. Medical doctors talk about
12 causation when we are talking about asbestos disease?

13 A. That's correct.

14 Q. I just want to clarify as far as Mr. Gordon
15 Skelly is concerned, you, of course, have never met him,
16 correct?

17 A. No. I haven't.

18 Q. You've never been to the Blandin Paper Mill
19 where he worked for 36 or 37 years, correct?

20 A. That's correct. I didn't --

21 Q. In fact, since you never been to that paper
22 mill, it's obvious you've never done any testing of any
23 type with regard to any asbestos that may have been out
24 there at the paper mill in Blandin, correct?

25 A. That's correct.

1 Q. And as far as the work that Mr. Skelly did out
2 at the paper mill for almost 37 years, you don't have any
3 information about the type of work he did other than his
4 testimony, either Lieutenant testimony he gave in his
5 deposition or the testimony that he gave in this
6 courtroom. True?

7 A. When you ask if I have knowledge of that, his
8 descriptions and the reason I reviewed the case materials
9 including the depositions is to see if it's consistent
10 with what I have seen in my experience out in the
11 workplace. So, therefore, I do have knowledge of what a
12 maintenance millwright would do having followed them
13 around in workplaces, not his specific one, but certainly
14 places like what he worked at.

15 Q. Okay. I'm not saying you are not familiar with
16 how people remove gaskets from flanges. You are familiar
17 with that, true?

18 A. That's correct.

19 Q. And you saw in his testimony, both in his
20 deposition and through his trial testimony that he did
21 that type of work. True?

22 A. Yes. On occasion. Yes.

23 Q. You say on occasion, wasn't his testimony he
24 did that throughout his career?

25 A. Thoughtout his career. Yes.

1 Q. That is a little bit different then on
2 occasion, wouldn't you agree with me?

3 A. It wasn't daily. But it was that he did do
4 that work. Yes.

5 Q. And you would agree that removing gaskets,
6 asbestos-containing gaskets from flanges on pumps, you
7 know, don't you Ms. Ringo, that that is something a
8 millwright would do?

9 A. In certain situations, yes.

10 Q. Let me ask you: You were asked by Mr. Foley a
11 number of questions about the amount of money you charge.
12 And I want to make sure I understand it correctly. When
13 you have to come in and deal with us lawyers, you up your
14 fee considerably to \$300 an hour, is that true?

15 A. I didn't up it. That is what the average
16 consultant in expert witnessing in my field charges. So
17 that is -- it's the going rate, I guess. Or whatever.
18 Yes I do charge more for that than I do going out and
19 doing investigations.

20 Q. Okay. And I thought you said for your other
21 work such as going out into the workplace and
22 non-litigation situations, that was either a hundred or
23 hundred and fifty dollars an hour?

24 A. Hundred and fifty.

25 Q. Hundred and fifty. Okay. And that as we sit

1 her today, in 2009, right now your family business that
2 -- I believe are you the president of that?

3 A. Yes, I am.

4 Q. So you're the head of the family business, of
5 this family of industrial hygienists that you told us
6 about yesterday. True?

7 A. Yes.

8 Q. And that as we sit here today in the year 2009,
9 that 50 percent of your work now is doing what you are
10 doing right now, coming in and testifying on behalf of
11 the defendants like Mr. Foley's client. True?

12 A. Well, 50 percent of litigation support. I
13 wouldn't say it's 50 percent of my time to testify. But
14 of money that is generated for my bill, as one of four,
15 then about 50 percent of my time is now being dealt with
16 reviewing case materials, occasionally I write reports,
17 doing depositions and then trial testimony. It is about
18 50 percent of what I do. But I don't work full-time.

19 Q. All right. To be fair, the 50 percent on the
20 \$300 per hour that includes not just coming in here and
21 taking the stand like you are doing right now, but that
22 includes the whole ball of wax, so to speak. In other
23 words, that is reviewing materials you were retained by
24 someone like Mr. Foley and asked to come give testimony,
25 you obviously take time to review documents and that sort

1 of thing and you charge for your time?

2 A. Certainly.

3 Q. Is that rate \$300 per hour?

4 A. Yes, it is.

5 Q. It's a flat \$300 per hour as soon as you're
6 contacted by the law firm such as Mr. Foley's to get
7 involved in a lawsuit such as this, true?

8 A. Well, as soon as I start spending time on the
9 case. Yes.

10 Q. All right. Well, then wouldn't it be fair to
11 say that since you charge \$300 for that time and that
12 makes up 50 percent of your time currently, that this is
13 the most lucrative part of what you do now?

14 A. You can say that. Yes.

15 Q. Now, I want to talk a little bit about the work
16 you've done for defendants in asbestos litigation.

17 It's my understanding from previous testimony you've
18 done work for Garlock?

19 A. That's correct. They were the first company to
20 contact me to see if I had any information about gaskets.

21 Q. And you would agree with me, Ms. Ringo, you've
22 done quite a bit of work for Garlock?

23 A. Over the last 13 years, yes.

24 Q. Would Garlock be your best client, so to speak,
25 in asbestos litigation?

1 A. I don't think so. I don't know if there is a
2 best client. It's the defendants who find my data that I
3 did previous to doing any litigation support I guess
4 helpful to their case.

5 Q. Maybe best wasn't a good word. Did Garlock
6 give you more work, did you do more work in asbestos
7 litigation for Garlock than the other entities that have
8 retained you?

9 A. Certainly in the first four or five years that
10 was probably the case.

11 Q. Okay. And Garlock, they manufactured
12 asbestos-containing gaskets, true?

13 A. That's correct.

14 Q. You've also done work for Crane Company?

15 A. Crane Co. Yes.

16 Q. Crane Co. That is another pump manufacturer?

17 A. That is a valve manufacturer.

18 Q. Valve, I'm sorry. Warren pumps, you've done
19 work for them?

20 A. Yes. I have.

21 Q. Leslie Valves, you've done work for them?

22 A. Yes.

23 Q. Buffalo Pumps?

24 A. Yes.

25 Q. IMO?

1 A. Yes.

2 Q. Durabla?

3 A. That is the same company. Yes.

4 Q. And there is some more, are there not, that
5 you've done beside those?

6 A. I believe there are, there are a few others.

7 Q. Do you recall who those are, Ms. Ringo?

8 A. Not off the top of my head. You named the ones
9 that would have come to mind certainly.

10 Q. But there are others, but you would consider
11 the ones I just listed as kind of the main ones?

12 A. If you were to ask me who I've done work for,
13 those are the ones I would say yes.

14 Q. Okay. I want to ask you one thing real quick
15 about -- one thing I noticed on your power point
16 presentation yesterday, I've highlighted, do you see
17 where I highlighted Ms. Ringo?

18 A. Yes I see that.

19 Q. It says range of individual sample results. Do
20 you see that?

21 A. Yes.

22 Q. Then we go over here, you've got highest value
23 of samples during wet methods. You got 0.10 fibers per
24 cc for 20 minutes. Then you have below that, highest
25 value of sample during dry methods, 0.07 fibers per cc

1 for 90 minutes. Do you see that?

2 A. Yes, I do.

3 Q. Okay. And just so we are clear, you got the
4 time out there, the samples, when you were doing these
5 methods of measuring the respirable asbestos fibers
6 released from gasket material, that's the amount of time
7 that is the total time doing that out to the far right?

8 A. Yes, that's correct. That is the time the
9 sample was collected.

10 Q. So if we look at that top one where it says
11 highest value of samples during the wet methods, you did
12 that for 20 minutes, correct?

13 A. That's correct.

14 Q. Then down here on the dry method, you did that
15 for a lot longer 90 minutes?

16 A. Well, that job that we were monitoring took
17 longer.

18 Q. Okay. And so we are clear and I think you've
19 testified about this before, that -- when we talk about
20 wet methods, that is actually doing what?

21 A. That is putting some type of wetting agent on
22 the gasket material as it's being removed.

23 Q. Okay. So you actually wet the gasket before
24 you remove it with some sort of putty knife or scrubber or
25 wire brush, some sort of device, true?

1 A. They wet it. I don't wet it. I'm observing
2 what they do during the removal process.

3 Q. But the gasket is wet as it's being removed.
4 And the asbestos fibers that are being released are being
5 measured?

6 A. That's correct.

7 Q. And then below that on the dry method, you
8 don't do anything to the gasket. You just remove it.
9 And you take air measurements. And that is where you got
10 the .07 fibers per cc for 90 minute timeframe, correct?

11 A. That's correct.

12 Q. I think you told me in the past that wetting,
13 in your studies and the things that you've observed and
14 the way you measured it, wetting the gasket really has no
15 affect whatsoever on the amount of asbestos fibers that
16 are released when a individual such as Mr. Skelly would
17 remove an asbestos-containing gasket. True?

18 A. I believe what I say it made no significant
19 statistical difference in the numbers for the fiber
20 release. Now, there is a difference in the water being
21 added adds weight to the debris that is generated during
22 the scraping off of gaskets. And that makes it fall more
23 directly down to the ground. So it makes clean up
24 easier. That is the biggest affect we have seen on
25 wetting gaskets.

1 Q. But you've told me and I think I understand
2 your question but I want to make sure I understand it
3 correctly. You are saying wetting the gasket really
4 makes no statistical difference in the amount of asbestos
5 fibers that are released in the breathing zone of the
6 worker. True?

7 A. That is what our numbers say. Yes.

8 Q. In fact, based on what you told the jury
9 yesterday on this sample here, more asbestos fibers were
10 released whenever you put water or you had a wet gasket
11 being removed than from a dry gasket, true? Isn't that
12 what that says?

13 A. What that says is that, all you can take from
14 that is that that is the number the calculation based on
15 the analytical analysis of the sample, that they measured
16 a 0.1 fibers for that sample, fibers per cc. We only
17 collected the sample for 20 minutes. If we collected
18 that sample for a longer period of time, there is a
19 chance it would have been exactly 0.07 for 90 minutes.
20 Those numbers, as far as an industrial hygienist
21 evaluating those numbers, there is no difference between
22 those numbers. Certainly not as you would compare them
23 to the short term excursion limit of one fiber per cc,
24 which is allowed. And as you do a time weighted average
25 to evaluate it for the eight hour average, both of those

1 numbers equate to less than 0.01 fibers per cc as an
2 eight hour average. So there is no statistical
3 difference in those samples.

4 Q. So it would be your testimony that using wet
5 methods to hold down the dust that you get, has no effect
6 on an industrial hygiene standpoint with regard to
7 asbestos-containing gaskets, correct?

8 A. That is what we found. Yes. That is part of
9 what we were testing.

10 Q. That is what you found?

11 A. That is what we found. Yes.

12 Q. But when you say we --

13 A. I was part of a committee with the Louisville
14 Gas and Electric Company. It involved their safety
15 department, their asbestos coordinators for each of the
16 plants. We did the sampling. I reported the results
17 back to them and it was part of what we were -- I say
18 that group, we, and my own company evaluating because
19 this took place in '91 and '92, '93 and on. In 1994 the
20 OSHA standard, when it was revised in '94 required that
21 you do wetting of gaskets that were being removed.

22 So we knew that was coming along. And we wanted to
23 see if it was going to make any difference. Also these
24 are the numbers then that we would report back to the
25 gentlemen in their training classes about what their

1 exposures have been.

2 Q. Now, in addition to what you talked about
3 yesterday, you in fact have done some testing on Garlock
4 gaskets that Garlock paid you to do, correct?

5 A. No. I have not.

6 Q. You have not ever done that?

7 A. No. I have not.

8 Q. Garlock never came to you and asked you to do
9 any testing on their gaskets?

10 A. No, sir. They had already done that with Carl
11 Mangold. I have never done any testing of any product. I
12 do workplace exposure evaluations, not testing of
13 materials.

14 Q. So, Garlock's never -- you never done that for
15 Garlock even though you come into the courtroom and
16 testify for them, correct?

17 A. I've testified for them, Garlock was the only
18 name that was ever mentioned by any of the workers that
19 we were doing monitoring for. We actually misspelled it
20 in one of our reports. With the southern accent,
21 Kentuckian, fly ash which came out flash, we misspelled
22 Garlock. That was the only name.

23 So when they approached me many years later, asked
24 me if I had any information, I said yes, I have. Then
25 they asked if I would be willing to come and share that

1 information with the jury so people could make better
2 decisions.

3 Q. You didn't ask or ever say Garlock I would like
4 to test your product myself and do a test separate?

5 A. No. Carl Mangold had done that in the '80s. And
6 when they showed me his results, I saw they were
7 consistent with what I found in the real workplace. I
8 didn't see a need to duplicate anything that had been
9 done.

10 Q. And the same, Ms. Ringo, would be true, you've
11 never done any testing on any Crane Co. products, true?

12 A. That's true.

13 Q. You've never done testing on any Warren pumps
14 products, true?

15 A. I can answer no to all of those. I have never
16 done any product manufacturer brand name testing. That
17 is not what I do.

18 Q. That would include Durco pumps?

19 A. That would be correct. Yes.

20 Q. On what you observed as far as the gasket work
21 and the removal of gaskets from flanges, Ms. Ringo,
22 haven't you testified in the past that you've seen
23 instead of a wire brush something you described as a,
24 quote, scrubbie thing?

25 A. Yes. There were on occasions they used wire

1 brushes. They look like a big toothbrush, kind of wire
2 brush, some are soft, some are hard, some are more rigid.
3 But what LG&E had found in the later years was that they
4 found these scrubbie things that you can use like on a
5 charcoal grill. It's like an expanded foam. It's real
6 rigid. And they found those worked very well and did not
7 scar up the flanges face. So they also used those. I've
8 seen lots of different methods for asbestos removal of
9 gaskets.

10 Q. This thing you called a scrubbie thing that
11 people would use to clean a bar-b-que grill, I think as
12 you put it, those were used and then you took air samples
13 based upon removal of gaskets using the scrubbie thing?

14 A. They would use a putty knife first. I don't
15 think I've ever seen anybody go straight to brushing or
16 scrubbing. Most of the time that you have to get either
17 -- I've seen big giant screwdrivers with a beveled
18 flattened edge, patient scrapers. But putty knife kind
19 of activity, get between the flanges and the gasket and
20 pry it up. And go all the way around, sometimes it even
21 takes like a hammer and chisel type activity, all the way
22 around or paint scraper. You get the majority of that
23 off as easily as you can. And then you will go to the
24 wire brush to get any residual that sticks. And
25 sometimes only go back to the scraper and scrape it. And

1 then they will go back to the putty knife and the chisel.
2 They will do what it takes to get the material off of the
3 flange.

4 You have to have the clean seal before you put a new
5 gasket back in place or you will end up with a leak
6 again.

7 Q. Right. That is a good point. That flange,
8 that metal flat part has to be absolutely clean or
9 cleared from the old gasket residue completely before a
10 new gasket is put on or it's going to leak. True?

11 A. It can leak. I have seen where they worked and
12 couldn't get exactly every lit bit off. But it was
13 essentially smooth and clean enough to make a seal, it
14 depends on the size of the flange also.

15 Q. That is why a putty knife is used or a wire
16 brush is used, or a power wire brush is used to get that
17 flange as clean as possible and get all of that asbestos
18 gasket material off of there. True?

19 A. Yes. Not only the gasket material but any rust
20 or chemical corrosion that has happened to the flange,
21 any kind of deterioration they would want a flat, clean
22 surface.

23 Q. And I'm just calling it a scrubbie thing,
24 because I'm using your terminology. Okay?

25 A. I don't know that I have a name for it. I

1 don't know the brand name of it. So I just call it the
2 scrubbie thing. Yes.

3 Q. On the scrubbie thing though that you observed,
4 that did not have wire or metal bristles, true? They
5 were plastic?

6 A. It's a hard plastic. Yes.

7 Q. So you would agree with me that the scrubbie
8 thing had some type of plastic bristle attached to it,
9 where, of course, a wire brush kind of speaks for itself,
10 the bristles are made out of wire?

11 A. There weren't any bristles with the scrubbie
12 thing. The scrubbie thing is like -- all I can explain
13 it is an expanded sponge. It's like plastic that is all
14 mixed and it has openings. And it has a rough surface.
15 And it's the rough surface that breaks that surface loose
16 of the gasket material that is still sticking to the
17 flange. So it's a mechanical abrasion just like the wire
18 brush.

19 Q. Okay. Well, I'm a little bit confused, maybe I
20 think you just cleared me up. When you said you were
21 talking about a scrubbie thing, that might be used to
22 clean a bar-b-que grill, I'm thinking about a brush type
23 thing with plastic bristles to clean the bar-b-que pit.

24 But you're actually talking about the round plastic
25 thing that is often used to clean the insides of pots and

1 pans when you would wash dishes?

2 A. It's even tougher than that. I haven't seen
3 that used inside. Maybe it's something local to
4 Louisville. But I've seen it used -- it was sold to
5 clean bar-b-que grills. It has a longer handle. I have
6 never used that kind of expanded foam inside of my
7 dishes. There is, one, no need. And the other is,
8 that's what they used. And they didn't use it all the
9 time, it was just a few of them that used it.

10 Q. It did have a handle?

11 A. It did.

12 Q. It had some sort of plastic on there to get the
13 residue off?

14 A. Yes. Very rigid plastic.

15 Q. We are going to talk about the numbers and
16 whatnot in a little more detail in a second, Ms. Ringo.
17 But, before we go on, whatever the numbers may be and we
18 will get into that in more detail in a little bit, you
19 would agree asbestos is a carcinogen?

20 A. Yes, it is.

21 Q. You believe it is toxic and needs to be
22 controlled, correct?

23 A. At certain levels. Yes.

24 Q. With regard to the work -- before I leave the
25 scrubbie thing, this is the last thing about the scrubbie

1 thing. You didn't see anything in the testimony either
2 in the discovery deposition that I conducted of Mr.
3 Skelly or the testimony, the sworn testimony that Mr.
4 Skelly gave here in that courtroom that he ever used
5 anything other than a putty knife a wire brush or power
6 wire brush, correct?

7 A. That's correct.

8 Q. I want to talk to you next, if I could, Ms.
9 Ringo, about a long amount of questions and answers that
10 you gave yesterday regarding Dr. Longo's study. Do you
11 remember all that?

12 A. I remember it being asked. Yes.

13 Q. You were asked a lot of questions about that by
14 Mr. Foley and you gave a lot of opinions about that in
15 great detail. Do you recall that?

16 A. Yes.

17 Q. I have some questions about that. Okay?

18 A. Okay.

19 Q. I understand you disagree with peer-reviewed
20 publication that Dr. Longo did with regard to the removal
21 of gasket material. I want to go into that in a little
22 more detail as to why you think that his findings were
23 incorrect. Okay?

24 A. Okay.

25 Q. You feeling okay with that?

1 A. I'm not sure I would say I disagree with that.
2 I disagree with some of his conclusions. And I have some
3 critiques of that and why I would not use that as a
4 reliable document.

5 MR. FOLEY: I would object to showing the
6 unauthoritative non-reliable document of Dr. Longo
7 because there is no predicate. And the rules require it
8 to be read, if it is found to be important. I object to
9 showing it to the jury, your Honor.

10 THE COURT: It's cross examination. The
11 objection is overruled.

12 BY MR. WOLF:

13 Q. Okay. Ms. Ringo, this is the document that we
14 talked about or you talked about with Mr. Foley at great
15 length yesterday, correct?

16 A. That looks like it.

17 Q. Right up here at the top, I will try to zoom
18 in, I will try not to give anybody a headache, right up
19 at the top it says; applied occupational environmental
20 hygiene volume 17, paren one, then it's got 55 -- I
21 believe that's 6, 2, 2002. Do you see that?

22 A. Yes, I do.

23 Q. That is the publication that Dr. Longo's paper
24 was published in in 2002, correct?

25 A. The journal. Yes.

1 Q. First of all, have you ever read that journal?

2 A. Yes.

3 Q. Would you agree as far as industrial hygiene
4 that a lot of the industrial hygienists read that journal
5 throughout this country?

6 A. That's correct.

7 Q. The jury heard about the peer-review process.
8 This went through the peer-review process. I want to
9 clarify, you know what that means?

10 A. Yes, I do.

11 Q. You, yourself, have never published anything in
12 any peer-review publication?

13 A. I've never published anything, that's correct.

14 Q. Just to clarify, not only have you never
15 published anything in the peer-reviewed literature such
16 as did Dr. Longo did here, you never published anything
17 at all, true?

18 A. That's correct.

19 Q. Ever.

20 A. Ever.

21 Q. Okay. The top of this, of course, is fiber
22 released during the removal of asbestos-containing
23 gaskets, a work practice simulation. Of course there are
24 several people that contributed to this, but it's Dr.
25 Longo who has a Ph.D. whose name is there. William E.

1 Longo, correct?

2 A. That's correct.

3 Q. Have you ever met Mr. Longo?

4 A. Yes, I have.

5 Q. Where have you met Mr. Longo?

6 A. It was at a walk-through at a La-Z-Boy recliner
7 factory in Mississippi.

8 Q. That sounds interesting. We won't go further
9 then that. I want to first of all ask you on page 57 of
10 this article, he was got table one. Do you see that, Ms.
11 Ringo?

12 A. Yes. I see it.

13 Q. And he says in table one, this is the analysis
14 of removed gaskets. And we are going to go through the
15 studies. He has over there on the left-hand side study
16 one two, three. Do you see those?

17 A. Yes. Those are the ones I referred to where he
18 had done a study and it's a separate document. Then he
19 took those three and combined them into this to publish.

20 Q. Right. You can read along. It's pretty self
21 explanatory. This is the number of gaskets analyzed.
22 Study one, ten gaskets; study two is four gaskets; study
23 three is one gasket, correct?

24 A. That is what it says.

25 Q. The asbestos type is has got down there for all

1 of those is chrysotile?

2 A. Yes.

3 Q. And then it says, concentration of asbestos in
4 volume percent. Do you see those?

5 A. Yes.

6 Q. Sixty-five to eighty percent asbestos by
7 volume. Then the next one is 75 to 85 percent. Last one
8 is 85 percent. Do you see those numbers?

9 A. Yes.

10 Q. You would agree, wouldn't you, Ms. Ringo, that
11 that is typical, the typical percentages you would find
12 in asbestos-containing gaskets?

13 A. I've seen a wide range of percentages of
14 gaskets.

15 Q. When you say wide range -- let me ask you, I've
16 seen from 60 all the way up to 85, is that consistent
17 with your knowledge?

18 A. I've seen gaskets that have been as low as 10,
19 20 percent. Sometimes it depends on the analysis.
20 Sometimes depends on the manufacturer and the use.

21 Q. Okay. Would you agree with me though, Ms.
22 Ringo, that the number he has up there, the 65 all the
23 way up to 85 percent asbestos content by volume in these
24 asbestos-containing chrysotile gaskets, that that is
25 accurate or that is a fair representation?

1 A. Well, I have a challenge with by volume.
2 Because he's -- it's really an optical analysis. Your
3 looking at a hunk of the material under a slide and
4 making a visual estimation of the amount of asbestos
5 versus non-asbestos materials. That is an optical. By
6 volume is -- or by weight would be more in line with what
7 you would refer to as how it is manufactured. The
8 optically he is using that term but I wouldn't use that.

9 Q. Okay.

10 A. I would just say, by analysis.

11 Q. You would say there is 65 to 85 percent
12 asbestos by analysis?

13 A. Yes.

14 Q. Okay. All right. Now, the numbers that you
15 gave to the jury yesterday, on those gaskets, what was
16 the percentage of asbestos in those gaskets that you
17 tested and then gave the numbers of respirable fibers
18 that were release when you abraded them or removed them
19 from flanges?

20 A. Well, again, I didn't remove them from flanges.
21 It's the workers that were doing it. Again, a wide range
22 of analysis. The ones that we were actually commissioned
23 or charged with the duty to analyze, had not been
24 previously identified by LG&E. Louisville Gas and
25 Electric had a very extensive program of knowing where

1 their asbestos was, asbestos-containing materials were.
2 So a pump, a valve, a system, they knew that that gasket
3 was asbestos because it had been put in. Then we didn't
4 go in and double check them or analyze it again and
5 charge them again for having it analyzed. They had
6 already analyzed it. So it was the ones that they
7 weren't certain of, they weren't sure of what it was.
8 That then we would analyze and include in our report. A
9 lot of the analysis that we did was of gaskets that were
10 of a lower percentage.

11 Also I think ours range from ten to about forty
12 percent. Although, I have done analysis on some samples
13 that were 80 percent.

14 Q. So if I understand it correct, Ms. Ringo, on
15 your study where you took air measurements from these
16 other gentlemen removing asbestos-containing gaskets from
17 flanges, and then you got your readings and your numbers,
18 those gaskets had less asbestos in them then these, true?

19 A. Only some of them. The ones that we had
20 analyzed. There were quite a few that we already knew
21 were the sixty, eighty percent asbestos gaskets that LG&E
22 knew were asbestos and we didn't have to do an analysis
23 of that. Those are included with the removals and the
24 numbers that I reported.

25 Q. Okay. So you basically were taking the word

1 from certain other individuals that these gaskets that
2 were being removed and then you were measuring the
3 asbestos that was being released from those gaskets, you
4 were just taking the word from these other individuals
5 that they were asbestos-containing and they ranged
6 anywhere from 20 to 60 percent asbestos. True?

7 A. Twenty to sixty? No. I'm sorry. We analyzed
8 gaskets that were not already analyzed or identified as
9 asbestos-containing on some projects. Each time we would
10 be called out there, the engineer in charge of the plant
11 or the maintenance group that was doing the work, they
12 have what is called the asbestos book. They called it
13 the big book. They would go and look by the piece of
14 equipment. If they knew what was in there and where they
15 had had it analyzed or where it was installed originally,
16 they knew what it was by the specs, specifications, I
17 took their word that that was asbestos, if they said it
18 was asbestos.

19 On the ones that they didn't know and there was no
20 documentation as to whether it was asbestos or not, they
21 would ask us to take a bulk sample of the material being
22 removed. We would do the air monitoring just like we did
23 in every case. We would take the samples back at the
24 laboratory analyzed it. They would analyze it and report
25 it as asbestos.

1 If it wasn't asbestos, then we reported it wasn't
2 asbestos. We also still reported the numbers. Those
3 industrial hygiene surveys, where the gaskets ended up
4 being non-asbestos are not included in what I refer to as
5 my reference materials to base my opinion on.

6 Q. Okay. I want to draw your attention, if I
7 could, Ms. Ringo, to this part. This is actually on I
8 believe page, it says 58 of his study. And there where I
9 have a line, it's highlighted in yellow, Dr. Longo says
10 all PCM and TEM data in the tables are expressed for
11 comparison purposes as fibers per cubic centimeter,
12 paren, f/cc --

13 A. Right. Fibers per cc.

14 Q. Greater than five microns in length. Do you
15 see that?

16 A. Yes. I do.

17 Q. To clarify, we are going to talk a little bit
18 more about the PCM and TEM method that you discussed
19 yesterday with Mr. Foley. You testified of course that
20 PCM is the method that OSHA uses because they had to have
21 some sort of standard way of measuring how much asbestos
22 is released from various products when they were
23 manipulated. True?

24 A. Right. When they were handled or the materials
25 disturbed. Yes.

1 Q. They wanted some sort of, I guess, for no
2 better term just a consistent method of doing that so the
3 numbers would all be the same?

4 A. Consistent and reliable is really what they are
5 looking for.

6 Q. Okay.

7 A. When they did early on the testing of analysis
8 of the samples by PCM and TEM, there was no correlation.
9 If the methods had been -- could correlate and give you a
10 straight graph, then you would be able to use the TEM.
11 It did not and you cannot.

12 Q. Okay. And what Dr. Longo and we will look at
13 the numbers he got, he did both. Correct? In other
14 words, he used both the PCM and the TEM method to
15 determine the amount of asbestos that is released from
16 asbestos-containing gaskets when you grind them off, use
17 a wire brush or even a power wire brush. True?

18 A. For the actual analysis, yes.

19 Q. Let's move over to this paragraph, so we have a
20 better understanding. It says the air samples collected
21 were analyzed by both PCM and TEM during the gasket
22 removal activities in these studies. The two basic types
23 of sample preparation for TEM air analysis are the direct
24 and indirect methods. And he gives some footnotes. And
25 those are listed at the back of the peer-reviewed

1 publication.

2 And then he goes on to say, some scientists have
3 suggested that the indirect sample preparation method,
4 particularly the sonication step causes large complex
5 asbestos structures such as fiber bundles and clusters to
6 break up and bias fiber count to higher concentrations.
7 He gives some more footnotes.

8 However, he goes on to say, in his peer-review
9 study, studies performed by the EPA and others have shown
10 that this criticism is not valid and that the indirect
11 technique is an acceptable method to analyze overloaded
12 air samples. Do you see that?

13 A. I see he said that. Yes.

14 Q. In the term up there sonication step, that's
15 what you referred to as the jewelry cleaner yesterday?

16 A. That's correct. Where you put it in a liquid
17 bath and use ultrasonic waves to break up the particles.

18 Q. You used the term jewelry cleaner that women
19 put their jewelry in and it vibrates, you put a solution
20 in there, I think my mom has one and it cleans jewelry?

21 A. Right.

22 Q. That is what he is talking about when he uses
23 the term sonication step. True?

24 A. That is very similar. Yes.

25 Q. What that does -- I don't want to get into it

1 too much, the jury heard quite a bit about the different
2 types of asbestos. And that the asbestos fibers can come
3 in bundles and they can splinter and those can splinter
4 and they can even splinter into even smaller asbestos
5 fibers. True?

6 A. That is true.

7 Q. Using the PCM method you count a bundle of
8 asbestos fibers as one fiber, true?

9 A. If it is three times as long as it is wide, and
10 it's greater than five microns you would count it as a
11 fiber.

12 Q. You would count that as one fiber even though
13 it is -- it could be a very large bundle, larger than the
14 dimensions you just gave, it could be a very large bundle
15 containing many, many individual asbestos fibers. But
16 under the PCM counting method, you count that as one
17 fiber. True?

18 A. That's the counting rules. Yes.

19 Q. Just so we are all on the same page, the PCM
20 phase contrast microscopy or microscope, it's not as
21 powerful, the magnification is not nearly as great at
22 TEM, the trans electron microscope or microscopy method.
23 True?

24 A. That's correct.

25 Q. The PCM doesn't magnify nearly as strong as the

1 TEM, in simple terms. True?

2 A. That's correct.

3 Q. All right. If you use the sonification or
4 sonication, excuse me, step, that causes these large
5 complex asbestos structures or bundles to break up, that
6 then with the TEM method allows you to see more asbestos,
7 individual asbestos fibers. True?

8 A. Yes. That is the critique of it. Yes.

9 Q. You can see actually more asbestos fibers and
10 you can even see smaller asbestos fibers?

11 A. That's correct.

12 Q. You can see a whole lot more than you can with
13 the PCM irregardless if you do the sonication process.
14 True?

15 A. You can see smaller and thinner ones, yes, and
16 shorter ones.

17 Q. But from an industrial hygiene prospective, Ms.
18 Ringo, you would have to agree with me that if these
19 bundles contained, say there was a large bundle of
20 asbestos fibers, and they contained many, many asbestos
21 fibers that were greater than five microns in length, and
22 had the other dimensions, that those individual fibers
23 even though they are grouped in one bundle still pose a
24 risk in causing asbestos disease. True?

25 A. Well, again, individual fibers or one single

1 bundle isn't going to put someone at risk for the
2 disease. It's the overall total dose with all the fiber
3 counts for day in and day out, that type of thing.

4 So when OSHA looked at the historical data that they
5 had for being able to say that at this level we see
6 disease, they had been counting it a certain way. And
7 those smaller fibers were in there, just not counted. Or
8 the bundles were in there and just not counted as
9 individual fibers. They were counted as bundles. So
10 that has been taken into consideration for all the
11 historical epidemiological data that has been done. All
12 of the research that's been done.

13 And for someone to take the material and essentially
14 take it, it's like string cheese where you can pull apart
15 string cheese, little kids like to eat string cheese.
16 And you pull apart and you get the individual strings.
17 It's taking that bundle and making it all into individual
18 smaller ones and counting what would have been one fiber
19 now counting it as 150 or 10 or whatever, however many
20 times you pull it a part.

21 The sonication also, and that indirect method also
22 breaks up any kind of binder that may have still been
23 adhered to small particles or fiber bundles that are
24 holding them together. It's not an accurate way to do
25 the work. No one else uses it. It has not been done.

1 And it's not the way you do it as an industrial hygienist
2 to evaluate employee exposures in the workplace. OSHA
3 doesn't use it. It's not an approved method.

4 Q. Let's see what Dr. Longo, in his peer-reviewed
5 publication on that very topic had to say and was printed
6 and went through the peer-review process and was
7 published. This paragraph on page 59 says, the current
8 OSHA asbestos exposure standards are based on the NIOSH
9 7400 method, you mentioned that yesterday?

10 A. Yes.

11 Q. This method measures only fibers longer than
12 five micrometers in length and greater than 0.25
13 micrometers in width. That is what we talked about a
14 moment ago, true?

15 A. That's correct.

16 Q. However, these fiber dimensions were not
17 implemented by OSHA with regard to health issues. The
18 minimum dimensions were implemented solely due to the
19 fiber resolution limitations of the PCM technique. And
20 the PCM technique is that less powerful microscope we
21 were talking about a while ago, true? True?

22 A. The PCM is the less powerful and more common
23 method. Yes.

24 Q. OSHA has long recognized that PCM is not fiber
25 specific or able to resolve fibers that are less than

1 0.25 micrometers in width. The TEM, again that is our
2 much more powerful electron microscope, true?

3 A. Right.

4 Q. Analysis performed in these studies augmented
5 the PCM measurement by obtaining more complete and
6 accurate measurements of the airborne asbestos
7 concentrations. Do you see what he said about that?

8 A. I see what he says. Yes.

9 Q. Let's see what he got when he was doing his
10 testing.

11 A. May I comment on that?

12 Q. No, ma'am. Let me ask the question. I'm sure
13 Mr. Foley will have a number of questions for you.

14 THE COURT: If that is an objection, Counsel,
15 it's sustained.

16 MR. WOLF: Okay.

17 BY MR. WOLF:

18 Q. This first table, just so we are all on the
19 same page, this table one was the one we looked at
20 earlier where he actually gives the percentage of the
21 asbestos on the gaskets he is testing that we went over.
22 Okay?

23 A. Right.

24 Q. And then on table two, he is talking about
25 study one up there scraping and hand wire brushing small

1 flanges. Do you see that?

2 A. Yes.

3 Q. PCM airborne exposure levels. So he is using
4 the PCM method that OSHA uses, correct?

5 A. That is what he says.

6 Q. And he is measuring fibers greater than five
7 micrometers in length, true?

8 A. That is what he says.

9 Q. Over there on the sample type, he has kind of
10 got a box and it's fairly easy to kind of go down. The
11 sample type he has got a background measurement. He has
12 got a worker measurement that I highlighted. It has an
13 assistant, that would be just someone standing there
14 handing someone like Mr. Skelly the tools that he may
15 need to get the flange clean. True?

16 A. Yes.

17 Q. And then area samples. And then up there he
18 has got number of air samples analyzed. And that is just
19 on background he did four. And on worker he did 14. And
20 so forth. Then the range he has this fibers per cc up
21 there. Do you see that?

22 So when he did, using the PCM airborne method,
23 counting fibers greater than five micrometers in length
24 on a worker scraping and hand wire brushing a small
25 asbestos-containing gasket off of a flange, the range he

1 got in fibers per cc was 1.5 to 10.1. Do you see that?

2 A. I see it.

3 Q. And then he went on and he did the time
4 weighted average on the fibers per cc. He got 3.7. And
5 then he went further and he did what you talked with Mr.
6 Foley about this eight hour time weighted average fibers
7 per cc. Do you see that? You got 1.5.

8 A. I see what he says. Yes.

9 Q. Just so clarify, the eight hour time weighted
10 average, Ms. Ringo, what is that?

11 A. That is the average based on the samples and
12 the time the samples were run, that you would do the
13 calculation as set forth by OSHA and ACGIH to be able to
14 evaluate what an eight-hour-exposure is. It's to allow
15 for shorter sampling time but still comparison to the
16 eight hour average or someone working a full eight hours.
17 You can take -- if you monitored for a full eight hours
18 that would be representative of an eight hour average.
19 You wouldn't do any calculations to it. It's just a way
20 of accurately averaging the numbers on the samples.
21 There is a time component.

22 Q. You are averaging it over an eight hour
23 timeframe?

24 A. That's correct.

25 Q. Now, in table three, he is basically doing the

1 same thing. I want to show you that in table three,
2 right here. Table three, scraping and hand wire brushing
3 small flanges again, asbestos-containing small flanges --
4 the gaskets off of flanges. Now he is using the TEM, the
5 electron microscope --

6 A. That's correct.

7 Q. -- to get asbestos level. And again, he is
8 counting only those that are greater than five
9 micrometers in length. Do you see that. Here, he did a
10 worker and the assistant. He did 14 different air
11 samples on the worker. And the range he got in fibers
12 per cc, counting with the TEM, which is our big powerful
13 microscope, he gets 29.9 all the way up to 144.2 fibers
14 per cc. Do you see that?

15 A. I see that.

16 Q. That exposure the 29.9 to 144.2, that is a high
17 exposure. Yes or no?

18 A. If that were an accurate analysis.

19 Q. Yes or no Ms. --

20 A. -- exposure --

21 MR. WOLF: Objection.

22 THE COURT: Sustained. Non-responsive.

23 BY MR. WOLF:

24 Q. Yes or no Ms. Ringo? Is the 29.9 dash 144.2
25 fibers per cc a high exposure. Yes or no?

1 A. If that were an accurate exposure it would be
2 high. Yes.

3 Q. Just to put it in context, on your power point
4 yesterday you gave a lot of discussion -- went through a
5 lot of discussion on pipe insulation. You had a picture
6 up here -- looks like one that is in kind of bad shape --
7 pipe insulation, you were talking about 15.8 to 113.9
8 fibers per cc. Do you see that?

9 A. That's correct.

10 Q. You considered that a high exposure, correct?

11 A. That's correct.

12 MR. WOLF: May I approach, your Honor?

13 THE COURT: You may.

14 BY MR. WOLF:

15 Q. Ms. Ringo, I'm sure you are better at math than
16 I am because I'm not all that good in math. But I've got
17 a mathematical question for you. Okay?

18 A. Okay.

19 Q. The jury's already heard quite a bit about what
20 fibers per cc mean, that right there?

21 A. Yes.

22 Q. That is cubic centimeter, right?

23 A. Cubic centimeter. Yes.

24 Q. The jury's heard from a number of experts that
25 a cubic center is roughly somewhat like a sugar cube?

1 A. A little smaller than a sugar cube, a little
2 smaller than a dice, or a die and a pair of dice.

3 Q. I've heard that said and I've been meaning to
4 get a pair of dice and a sugar cube and actually compare
5 the two. Roughly we are talking about something the
6 size --

7 MR. WOLF: May I approach, your Honor?

8 THE COURT: You may.

9 BY MR. WOLF:

10 Q. Something the size of a sugar cube?

11 A. That's correct.

12 Q. A cube, a centimeter cubed?

13 A. Yes. A centimeter on each side in length.
14 It's a centimeter by a centimeter by a centimeter which
15 is how you get cubic centimeters.

16 Q. So cubic centimeters, I'm going to make --
17 don't hold me too this, I will try to draw something that
18 looks a little bit like a sugar cube. It's something
19 about like that square, is that fair?

20 A. It actually has a dimension to it. So you
21 would do little lines, I can do one for you.

22 Q. You will make me do the box, aren't you?

23 A. Yeah. (Laughing).

24 Q. Let me see if I can do that. Something roughly
25 like that?

1 A. Yes.

2 Q. The size of a sugar cube all the way around.

3 If we extrapolate that out -- what I have here is a yard
4 stick.

5 A. Yes.

6 Q. Do you want to look at it?

7 A. It has a meter stick on the other side. You
8 got centimeters on there.

9 Q. Okay. Do I have a full meter on here?

10 A. Probably not.

11 Q. I think I need three more inches.

12 A. Right.

13 Q. Because this is 36 inches?

14 A. Yes, makes a yard.

15 Q. That makes a yard. So to have a meter, I need
16 three more inches out there to 39?

17 A. Just about. Yes.

18 Q. Three more inches to this. So if I had a meter
19 cubed, we will use my finger sticking out about three
20 more inches, and we did the same thing, we made a box and
21 it was a meter cubed on all sides, same as this right
22 here, (indicating), of course I will not make it near
23 that big, but we will just say -- the paper is not that
24 big. (Drawing). This is one meter, all right, cubed.
25 Here's the math question: Cubic centimeter, is this

1 right here, (indicating), all right?

2 A. Yes.

3 Q. There is one million cubic centimeters in this
4 metered cubed, correct?

5 A. Yes.

6 Q. One million?

7 A. Because it's a hundred centimeters per each
8 length then. It would be a hundred, times a hundred,
9 times a hundred. So it's a million centimeters, cubic
10 centimeters in a cubic meter.

11 Q. So, to kind of complete the picture, why do we
12 use cubic centimeters when we are measuring how much
13 asbestos is in a breathing zone of a worker?

14 A. I don't know. Every other -- other than
15 fibers, every other agent of dust is measured for
16 industrial hygiene purposes in cubic meters of air
17 breathed. I just don't know why they did it.

18 Q. Why they did it that way?

19 A. Yes. Because the NIOSH actually made
20 recommendation based in fibers per cubic meter.

21 Q. Okay. If we take -- let's use this example
22 before we go on to the next table, if we use this range
23 of a worker using an asbestos gasket and removing it from
24 a flange, a small flange. And using the TEM method. And
25 the range from the 14 air samples came out to be almost

1 30 to 144 fibers per cc. If we extrapolated that out to
2 my meter by meter by meter cubed box, that I've drawn up
3 here on the butcher paper up here, that means you would
4 multiply the 29.9 and the 144.2 times one million,
5 correct?

6 A. To do the conversion from any number in fibers
7 per cc to fibers per cubic meter, you would multiply by a
8 million. Yes.

9 Q. So if he found that there was 29.9 to 144.2
10 fibers per cc in a cubic centimeter, that would equate to
11 29.9 million to 144 million fibers in my meter cubed, up
12 on the board, true?

13 A. If you do the calculation, yes.

14 Q. Here we go to table four, study two. And the
15 difference up here is that he is scraping -- he is
16 showing that he is scraping and hand wire brushing large
17 flanges, the other two we looked at were small flanges?

18 A. That's what he says.

19 Q. These are large flanges. And he is again using
20 the PCM, the method that OSHA uses, and that you like to
21 use, true?

22 A. He is saying he used that method. Yes.

23 Q. And he is getting, again, measuring only fibers
24 greater than five micrometers in length. He has got the
25 sample type, background worker, assistant and sample

1 areas. We will stick with the worker. Okay. Mr. Skelly
2 testified that he actually did this work himself. So we
3 will just stick with that. And on these he did ten
4 samples analyzed on the worker. And he got a range of
5 9.3 to 24.0 fibers per cc, is sample time weighted
6 average was 15.3 in his eight hour time weighted average
7 was 3.6. Do you see that?

8 A. I see that. I don't know how he did that.
9 It's interesting he put that value there.

10 Q. Well, the large flanges on the PCM, the numbers
11 -- if we go in the range 9.3, 2.4, those are larger than
12 -- and I apologize for having to flip back and forth, if
13 we are comparing apples to apples, here's his PCM on the
14 small flanges, and obviously it was less, 1.5 to 10.1.
15 Do you see that?

16 A. I see what he says.

17 Q. You would agree, that only makes common sense,
18 doesn't it, Ms. Ringo, that the larger the flange, the
19 larger the gasket, true?

20 A. Yes.

21 Q. The smaller the flange, the smaller the gasket?

22 A. That is true.

23 Q. So if someone is removing a larger gasket, it
24 only stands to reason that they are going to be exposed
25 to more asbestos fibers than if they are removing a small

1 gasket from a smaller flange. Do you agree?

2 A. Logically that makes sense. But it depends on
3 how stuck the gasket is to the flange. On a larger
4 gasket, if it comes off relatively easy versus a smaller
5 flange where it takes a lot more scraping, you might have
6 a higher number for the smaller flange, relatively higher
7 number. They are all low numbers though based on the
8 monitoring that has been done other than Dr. Longo.

9 Q. Okay. Well, I guess the fair way to say that
10 then, all other things being equal as far as how baked on
11 or how hard it was to get off the gasket, if you had a
12 small gasket on a small flange and it was baked on and
13 it was as difficult to get off as a larger flange on a
14 larger gasket, all things being equal in that situation,
15 you would agree with me that you are going to get more
16 asbestos fibers in the worker's breathing zone by
17 removing the larger gasket. True?

18 A. You would certainly expect it. Yes.

19 Q. There is more asbestos?

20 A. There is more time spent on the larger gasket
21 so you would have a longer sample of the actual removal.
22 Yes, that is certainly a possibility.

23 Q. Okay. Now, he goes -- what we were looking at
24 a while ago was a PCM on large flanges, looked at those
25 numbers. And now we go to our more powerful microscope

1 that counts not just the bundles of asbestos fibers but
2 all the different asbestos fibers. This again is
3 scraping and hand brushing on large flanges using our
4 electron microscope. And again he is counting only those
5 fibers that are greater than five micrometers in length.
6 And on the worker he did 14 different air samples were
7 analyzed. And the range he got there 199.6 to 842.7
8 fibers per cc. Do you see that?

9 A. I see that.

10 Q. Again, you would agree with me, Ms. Ringo, if
11 we did the math and my box up here, this box that is yea
12 big, I think maybe my arm will reach out about that far,
13 (indicating), something like that. You would multiply
14 that times a million. And if you extrapolate that out,
15 that would be almost 200 million fibers to almost 843
16 million fibers in that box. True?

17 A. That would be the calculation.

18 THE COURT: Mr. Wolf, can we take a morning
19 break at this point?

20 MR. WOLF: Sure, your Honor.

21 THE COURT: Let's take a fifteen minute break
22 please. Be back at ten to.

23 (Whereupon, a short break was taken.)

24 THE COURT: You can be seated. Mr. Wolf, you
25 may continue.

1 MR. WOLF: Thank you, your Honor.

2 BY MR. WOLF:

3 Q. Ms. Ringo, when we left off to take a break, of
4 course we were talking about Dr. Longo's peer-reviewed
5 study on gasket removal. And you had talked yesterday on
6 direct examination with Mr. Foley quite a bit about
7 asbestos gaskets being in a matrix synthetic rubber
8 makers. Do you remember that?

9 A. Yes.

10 Q. Well, I want to show you Dr. Longo also in his
11 peer-reviewed study discusses that. And he said
12 generally sheet gaskets are comprised of approximately 70
13 percent chrysotile asbestos bundles in a synthetic rubber
14 matrix. Do you agree with that?

15 A. Generally, yes.

16 Q. The SEM micrograph on figure one, we will look
17 at that in a second, shows large bundles of asbestos
18 protruding from the matrix of new sheet gasket materials.
19 any minimal disturbance or an abrasion of these bundles
20 can release asbestos fibers into the air. Another
21 problem with asbestos gaskets is that the synthetic
22 rubber matrix that we have been talking about, begins to
23 deteriorate after installation, in most cases installed
24 sheet gaskets are subjected to high temperature and
25 pressure that will increase the rate of thermal

1 decomposition of the rubber matrix.

2 First of all, Ms. Ringo, do you agree in most cases
3 installed asbestos-containing sheet gaskets are subjected
4 to high temperature and pressure, would you agree with
5 that, ma'am?

6 A. There are many applications for sheet gaskets.
7 Some are high temperature, high pressure, others are not.

8 Q. Okay.

9 MR. FOLEY: Your Honor, I apologize, before we
10 get to a new question, just for the record to note as we
11 discussed earlier, I do have a continuing objection to
12 the Dr. Longo study and reference to it as Counsel and we
13 discussed.

14 THE COURT: You do.

15 MR. FOLEY: Thank you, your Honor.

16 BY MR. WOLF:

17 Q. They are used in a wide variety of
18 applications, true?

19 A. That's true.

20 Q. You would agree with me though, would you not,
21 Ms. Ringo, that the part about the gasket being under
22 pressure, as far as being compressed between pieces of
23 metal where there is a flange or an internal component
24 part of a pump or whatever, that has to be compressed
25 fairly tightly, you would agree with that, correct?

1 A. I believe there are specifications for how much
2 compression those gaskets can withstand. Yes.

3 Q. And that makes sense because the whole purpose
4 of gaskets, if we didn't have the gasket and we had two
5 pieces of metal they were putting together and there is a
6 lot of fluid going through that high pressure, and you
7 have metal on metal, it's going to spray out and leak.
8 True?

9 A. That would be correct.

10 Q. So the gasket is just there to seal. And you
11 have to use bolts and nuts typically?

12 A. That's correct.

13 Q. Something to fix the two pieces of metal with
14 your gasket material in between very tightly, so when you
15 have this high pressure steam, water, fluid or whatever,
16 chemicals going through there, it doesn't leak, fair?

17 A. That's correct. Yes. That is the purpose.

18 Q. Now, what Dr. Longo is saying here is that he
19 is agreeing with you that there is a synthetic rubber
20 matrix in these asbestos, 70 percent chrysotile asbestos
21 gaskets. But he actually looked at just a brand new
22 asbestos gasket under the microscope to see what it
23 looked like. Have you ever done that?

24 A. I have seen pictures of them. Yes. I haven't
25 done it myself. I don't have a scanning electron

1 microscope. I have seen pictures of a lot of surfaces of
2 different materials under the microscope.

3 Q. You don't have the electron microscope?

4 A. No.

5 Q. I think it's been said in court those are very
6 large and very expensive?

7 A. That's correct.

8 Q. But using that, he saw large bundles of a
9 asbestos protruding from the matrix of the new sheet
10 gasket material. Have you ever seen that? Are you aware
11 of that?

12 A. I have seen pictures of that. Yes.

13 Q. In other words, before the gaskets are ever
14 even used or put in place on a flange or pump or valve or
15 whatever, there is actually, if you looked under a
16 microscope you would see asbestos fibers protruding from
17 that gasket material?

18 A. It's still bounded in the matrix. Yes.

19 Q. The matrix -- do you agree with Dr. Longo that
20 once asbestos-containing gasket has been in place and
21 squeezed tightly between two pieces of metal and you have
22 hot fluid going through there for some period of time,
23 say a year or two, that the rubber matrix begins to
24 deteriorate?

25 A. That can occur. Certainly doesn't occur in

1 every situation. But it can occur I'm sure.

2 Q. Okay. He went on and talked about that in this
3 paragraph, said a comparison of the surface of a new
4 gasket, figure one, to that of a used gasket or removed
5 from one of the flanges in study two, shown in figure
6 two; demonstrate how the rubber matrix material is
7 degraded. This degradation provides more opportunity for
8 the release of asbestos fibers during the removal
9 process.

10 You would agree with that statement, wouldn't you,
11 Ms. Ringo, that if the matrix is dissolved to a certain
12 extent or degraded over a period of time because of
13 pressure and heat, that when that flange or whatever the
14 gasket may be attached to is removed in a worker such as
15 Mr. Skelly then has to take a wire brush or power wire
16 brush to get that off, that the decomposition basically
17 of the matrix allows for more asbestos fibers to be
18 released. True?

19 A. As a hypothetical, yes. Sure.

20 Q. Okay. Real quick. The last thing he did, we
21 have been talking about hand wire brushing on small and
22 large flanges using both the PCM on those tables, large
23 and small flanges, gaskets being removed using PCM. The
24 same thing using the TEM. They gave us the four we
25 already talked about.

1 Now we are going to the third study. This is the
2 power wire brushing. Okay. You're familiar with that
3 practice being used in the workplace or out in the field
4 so to speak?

5 A. Some places use that, yes. Or it can be used,
6 yes.

7 Q. And just so we are all on the same page, a
8 power wire brush it's kind of like a grinder or handheld
9 grinder that is either operated pneumatically with air,
10 an air hose, or some of them are electric and they have a
11 wheel and you apply a wire brush to the wheel. And then
12 you can use that, it spins at a very high rate of speed.
13 And you can use that to grind or clean the surface, a
14 metal surface. True?

15 A. I have not seen the very large ones used.
16 Because if you do that too much you scar up the surface
17 of the flange. And then it's not any good. It's no
18 longer flat. It has these gouges and no gasket will be
19 able to fill in those gouges. The wire brushes I have
20 seen are small maybe attached to what would look like a
21 handheld drill, it's more like the pneumatic tool that I
22 have seen used.

23 Q. But the tool -- so was it electric or --

24 A. Pneumatic.

25 Q. Powered by air?

1 A. Yes.

2 Q. High pressured air hose?

3 A. Yes.

4 Q. The same process, the wheel though has a wire
5 ring around it, a wire stiff brushes. And that spins at
6 a high rate of speed. And the person uses that to clean
7 the metal surface to get all the flange clean and the
8 residue from the gasket off?

9 A. Yes. There is a variety of configurations of
10 how the wire brushes look.

11 Q. And do you recall that Mr. Skelly talked about
12 using power wire brushes on occasion to remove asbestos
13 gasket in his work?

14 A. On occasion, yes.

15 Q. This study three, this again is using the PCM,
16 that is the method that you like?

17 A. Yes. It's not that I like it, it is the method
18 required by law that we use to evaluate employee
19 exposures.

20 Q. OSHA.

21 A. OSHA.

22 Q. Okay. The PCM up there is what he is using.
23 And again, he is measuring just the fibers that are five
24 micrometers in length. And I will highlight just the
25 worker. He did seven samples. And the range on that

1 fibers per cc were 14.9 to 31.0. Do you see that?

2 A. I see what he says he got. Yes.

3 Q. And again, if we did our math over here, that
4 would be 14.9 million to 31 million fibers in our meter
5 box that's cubed up there, true?

6 A. That would be correct.

7 Q. Then if he takes that on out, there is a time
8 weighted average of 21.8 fibers per cc. If you go to the
9 eight hour time weighted average, that is 2.3.

10 You would agree with me, wouldn't you, Ms. Ringo,
11 that in using a powered wire brush to remove an
12 asbestos-containing gasket, typically you're going to get
13 higher amounts of asbestos in the worker's breathing
14 zone, true?

15 A. Not necessarily.

16 Q. Let me ask you this question: Do you have an
17 opinion or do you believe that the amount of force that
18 is used to remove, and the manner of force that is used
19 to remove the asbestos-containing gasket residue off of a
20 piece of metal, a flange for example, has a direct impact
21 on the amount of asbestos that is released into the
22 worker's breathing zone?

23 A. The amount that is released might be more at
24 the surface. But the power action, what I have seen and
25 what I have observed and what I have monitored, is that

1 during that power application, the pneumatic wire brush
2 to it, there is more of a force that flings it actually
3 away from the person's face. So unless someone would
4 direct that so it's blowing directly at them, and I've
5 never seen a worker do that, that generally it actually
6 pushes it away from their face and gets it out of their
7 breathing zone faster than if they were sitting there
8 with a hand wire brush.

9 It also takes less time to clean off the flange
10 face. So the time of exposure is actually less. So I've
11 done monitoring both ways. As a time weighted average,
12 there is no difference.

13 Q. Well, what you are talking about, if we look at
14 our assistant right here, that is just the person
15 standing beside the actual person doing the work, maybe
16 handing the tools or the materials, true?

17 A. True.

18 Q. Well, Dr. Longo found on the assistant that the
19 range was not a whole lot less, some less. Instead of
20 14.9 to 31 fibers per cc, he got 12.8 to 21.2 fibers per
21 cc just in the assistant's breathing zone, who wasn't
22 actually doing the power wiring brushing. Do you see
23 that?

24 A. I see that. It depends on where they are
25 standing. And truly I don't know how he came up with the

1 numbers that he came up with.

2 Q. Well, you've seen this whole process done out
3 in the field, right?

4 A. Yes. I have.

5 Q. Well, can you give the jury some estimate how
6 close a worker would be, their face, their actual face,
7 by that I guess their mouth and their nose is the
8 important part, how far away it is from the flange that
9 they are using a power wire brush to remove gasket
10 residue?

11 A. Generally, it's the distance of the arm. It's
12 very -- it's just like doing with a wire brush. There is
13 no difference in the distance when they are using a
14 regular brush to a power wire brush --

15 Q. So we are talking -- I'm sorry.

16 A. -- matter of feet. Yes.

17 Q. You couldn't hold it out like that, would you?
18 (Indicating).

19 A. No. You are not going to -- unless they are
20 afraid of something getting kicked back to them, but
21 usually if they are using a power tool they are using
22 some kind of face protection.

23 Q. You would agree obviously they have to be
24 looking at what they are doing to see if they are getting
25 all of the residue of the asbestos gasket off of the

1 metal, true?

2 A. That is true.

3 Q. If you are holding it way back like this, that
4 might be rather difficult to do? (Indicating).

5 A. I wouldn't say that they did that. No. They
6 are doing the same way, same distance is what they're --
7 it also depends on the piece of equipment that they are
8 working on.

9 Q. If we then go to this table, this is study
10 three, where again he is using the power wire brushing.
11 Of course I underlined he's using the TEM method. The
12 more powerful expensive microscope, is much more powerful
13 and you can see a lot more fibers, again he is counting
14 just the fibers that are five micrometers in length. And
15 on the worker he did seven samples, analyzed seven for
16 the worker. And the range of fibers he got on that using
17 the TEM method was 877.1 to 1636.1 fibers per cc. True?
18 Yes or no?

19 A. He actually doesn't get fibers per cc there,
20 with the TEM method. This is one of the reasons that
21 this has been deemed junk science. When you do TEM,
22 you --

23 Q. Ma'am, I hate to object as nonresponsive.

24 THE COURT: If that is an objection, it is
25 nonresponsive to the question.

1 MR. WOLF: Yes.

2 BY MR. WOLF:

3 Q. If we did the math on the 877.1 to 1636 fibers
4 per cc using the TEM method and doing our math up there,
5 that would be 877 -- over 877 million fibers in our cubic
6 box up to one billion six hundred and thirty-six million
7 fibers. True?

8 A. Doing the calculation that would be the number
9 you would get.

10 Q. A million times a thousand is a billion?

11 A. Yes.

12 Q. Well over a billion, over one and a half
13 billion. Okay.

14 Right here, on his conclusions and recommendations,
15 he says these studies as well as the other studies
16 previously discussed demonstrate that there can be wide
17 variability in airborne asbestos fiber levels generated
18 during the removal of asbestos-containing gaskets from
19 flanges. The variability of fiber levels released is
20 most likely dependent on the condition of the asbestos
21 gasket, the size of the gasket surface area, and the
22 method of removal.

23 You would agree that all of those factors that he
24 listed down at the bottom, Ms. Ringo, do have an impact
25 on how much asbestos is released into the worker's

1 breathing zone?

2 A. How much it would measure for the individual
3 sample, yes, I would agree with that.

4 Q. Okay. He goes on to say in his peer-reviewed
5 article, our data showed that dry removal methods
6 typically used by machinists and pipefitters, past and
7 present, result in significant airborne asbestos fiber
8 exposure. Down below that he says, the exposures also
9 far exceed current OSHA levels. Therefore, former
10 machinists and pipefitters that performed to this type of
11 work as part of their job activities would have had
12 significant airborne asbestos exposures while removing
13 tightly adhered gaskets on flange surfaces.

14 The numbers that we have been going over all morning
15 in his peer-reviewed paper on these studies that he did,
16 Ms. Ringo, you would agree that they are far in excess of
17 the levels that OSHA permits, true?

18 A. Those numbers are excessive. Yes.

19 Q. You talked about asbestos gaskets still in use.
20 You went on and talked about under current OSHA
21 regulations, the removal of asbestos-containing gaskets
22 require the use of a glove bag in wetting methods to
23 contain the release of asbestos fibers into the
24 workplace. You are aware of that, right?

25 A. That is a method that can be used. Yes.

1 Q. And a glove bag, I don't know that we talked
2 about that. What is a glove bag?

3 A. If you've ever seen a science program or even
4 on movies where they are doing work inside a box, they
5 put your hands in a glove, the hands go into gloves. And
6 it's isolation of whatever is in there from the person
7 doing the work. A glove bag is like a giant Zip-lock bag
8 with gloves that are put into it. And you can take and
9 put the bag around the pipe and seal it. And be able to
10 do work inside. So that the employee is outside the
11 enclosure, if you will, that they put -- as a glove bag
12 around the pipe.

13 Q. In other words, it's a mechanism or a way of
14 keeping all the asbestos fibers contained and preventing
15 them from getting into the breathing zone of the worker
16 removing the gasket?

17 A. It's used for other than gaskets. It's been
18 around to remove pipe insulation for small -- at one
19 point OSHA had a terminology for asbestos removal called
20 short term small scale removal. If you had just three
21 linear feet of pipe insulation, you could use a glove
22 bag. So it was really designed more for the friable
23 stuff. But they also used for and at one point OSHA said
24 used them for gaskets.

25 Q. He goes on to say, the following actions are

1 recommended that asbestos-containing gaskets are removed
2 without a glove bag and wetting. Number one, a negative
3 pressure enclosure should be used. What is that?

4 A. That is the building of a containment of
5 usually made out of structure with plastic around it and
6 you seal it up so it's an enclosure. A plastic tent like
7 enclosure. And you put the inside of it under negative
8 pressure. In other words, you put air machines that are
9 going to draw air out so that -- and it goes out through
10 the machine rather than coming out through the doors.
11 Any air that goes in or out of that enclosure is being
12 drawn into the enclosure, except where it's being pulled
13 out by the machine.

14 Q. It goes on to say that if you are going to do
15 this you also need to have -- the enclosure should have a
16 HEPA filtering slash air blower system. What is that?

17 A. That is the air handling machine, referred to
18 into the OSHA and EPA methods for abatement. It's called
19 a negative air machine. It's the machine that is used to
20 create that negative pressure inside the enclosure. And
21 it has a HEPA filter, which stands for high efficiency
22 particulates in air. It's a type of filter that will get
23 out even the smallest particles, it's very high
24 efficiency filter.

25 Q. Number three, a HEPA vacuum cleaner and wetting

1 agent should be used. That speaks for itself?

2 A. Yes. That is a vacuum cleaner with HEPA
3 filter. You can buy them in stores now, vacuum cleaners
4 with HEPA filters, as a high efficiency particulate. It
5 keeps the dust from getting back out.

6 Q. And number four says, the worker should wear a
7 respirator appropriate for the airborne asbestos
8 concentration generated by the activities. What does
9 that mean to you, Ms. Ringo?

10 A. That is not only for asbestos but for every
11 activity. When you do your air monitoring and it is the
12 reason we do the monitoring, is determine the level of
13 respiratory protection. Different respirators provide
14 different levels of protection. If the numbers are
15 moderately at or above the OSHA levels than you could use
16 like a dual cartridge half-face respirator. If they
17 become higher levels, then there is a chart you can go to
18 in the standard that says if your levels are ten times to
19 a hundred times, then you have to choose like a full-face
20 respirator. Over a hundred or a thousand times then you
21 would use air-line respirators, something like what the
22 firemen use going into burning buildings. That type of
23 thing. So it's the different levels of protection for
24 respiratory protection. That is very appropriate for
25 whatever the exposures are.

1 Q. They were not talking about the little paper
2 mask, are we?

3 A. No. In fact for asbestos the paper masks are
4 not appropriate.

5 Q. Why not?

6 A. Some of them I think do a good job. But there
7 are others in the past maybe have not. And it's just
8 what OSHA says. You have to use a high efficiency
9 particulate filter. And most of those paper masks are
10 not high efficiency.

11 Q. When you say high efficiency --

12 A. There is a test that they do on the filtering
13 materials that go into these respirators and they
14 calibrate how much the filter will stop. So a high
15 efficiency filter will stop 99.9 percent of particles
16 down to three microns in size. The others only not at a
17 high efficiency would stop 95 percent. And some of them
18 stop 90 percent.

19 Q. Ms. Ringo, have you ever written and published
20 a critique of Dr. Longo's work or have you only come into
21 a courtroom after being paid \$300 an hour to critique his
22 work?

23 MR. FOLEY: It's argumentative.

24 THE COURT: It's very argumentative. Objection
25 is sustained.

1 BY MR. WOLF:

2 Q. Let me rephrase. Have you ever written to any
3 publication critiquing Dr. Longo's work that we have been
4 discussing this morning?

5 A. I thought about it when I first read it, but
6 others had done that and I didn't see that it was
7 necessary to add on to what already had been said.

8 Q. Okay. You talked with Mr. Foley yesterday
9 about thermal insulation. Do you remember that?

10 A. Yes.

11 Q. About a bunch of different products. In fact
12 your power point had a bunch of pictures of thermal
13 insulation and different asbestos-containing products.
14 Do you recall that?

15 A. Yes.

16 Q. Fireproofing, different things that were used
17 in industry. I want to show you some documents, some
18 abatement documents. This is dated -- this is from the
19 Nova Environmental services Inc. dated June 25, 1992.

20 Q. Showing you, Ms. Ringo, this is a document
21 dated June 25, 1992 to the Blandin Paper Company, in
22 Grand Rapids, Minnesota. It's regarding asbestos
23 abatement and sampling. First paragraph I've
24 highlighted, it says Nova Environmental Services Inc.,
25 paren, Nova, closed paren, has completed the analysis on

1 the bulk samples of building material delivered to our
2 laboratory on June 24, 1992. These samples were analyzed
3 for asbestos utilizing the environmental protection
4 agency, EPA, recommended polarized light microscopy
5 technique described in, quote, interim method for the
6 determination of asbestos in bulk insulation samples, end
7 quote. Do you see that?

8 A. Yes.

9 Q. On the second page of that document, up at the
10 top says, bulk sample analysis. It says sample
11 description and it's transite. Do you see that?

12 A. Yes.

13 Q. Then says asbestos fiber percent, they have
14 forty 40. Assuming they found 40 percent. Would you
15 agree with me?

16 A. That is the optical evaluation from the
17 microscopist. Yes.

18 Q. Then it says asbestos fiber type. And it's
19 chrysotile, correct?

20 A. Correct.

21 Q. You are familiar with these types of documents,
22 right?

23 A. Yes.

24 Q. Abatement documents where they analyze to see
25 what type of product was there and what type of asbestos

1 and the amount of asbestos?

2 A. Certainly.

3 Q. So this is basically saying that this transite
4 material that came out of the Blandin Paper Mill was 40
5 percent chrysotile asbestos?

6 A. Of the samples they took. Yes.

7 Q. You talked quite a bit about insulation.
8 Here's another one. This one is dated -- do you all want
9 to see these? (Showing the document to counsel).

10 This, Ms. Ringo, is from Industrial Health
11 Engineering Associates Inc. here in Minneapolis, dated
12 March 3, 1981. Mr. Robert Holycross there at Blandin
13 Paper Company in Grand Rapids, he is talking about
14 enclosed are the results of the laboratory analysis of
15 the bulk insulation samples submitted to IHE on January
16 26, 1981. Then on the second page, on table one says
17 analysis of bulk insulation samples, he has got six
18 different samples there. Do you see that?

19 A. Yes.

20 Q. And a percentage of asbestos, the type of
21 asbestos and over on the far right-hand side says other
22 fibers. On number one, on this bulk insulation sample
23 they found it was chrysotile asbestos and it was 30 to 35
24 percent chrysotile asbestos. Am I reading that
25 correctly?

1 A. That is what it says.

2 Q. Then on samples two and three of the
3 insulation, bulk insulation samples they tested they
4 didn't find any asbestos, true?

5 A. It's reported as less than one percent.

6 Q. That is the ones where they go to the
7 right-hand side and say they found other fibers cellulose
8 and glass wool. One was synthetic and glass wool. Do
9 you see that?

10 A. Yes.

11 Q. Are you familiar with cellulose and glass wool
12 and synthetic material being used for insulation
13 purposes?

14 A. Certainly.

15 Q. In industrial settings like a paper mill such
16 as the one Mr. Skelly worked in?

17 A. A wide range of insulation materials were used.
18 Yes.

19 Q. Then samples four, five and six, except for
20 maybe the last one, are all pretty much the same. They
21 had a range of 30 to 35 percent asbestos. It was all
22 chrysotile. Do you see that?

23 A. Looks like four and five are chrysotile. And
24 then it doesn't have -- you can't -- I would assume which
25 is always a little dangerous, that the 35 percent

1 chrysotile and 3.5 in brackets, if they drew those
2 brackets then it goes to number six. Which would be a
3 mixture.

4 Q. Okay. That is the three dash five crocidolite?

5 A. Yes.

6 MS. O'NEILL: For the record, are we marking
7 these as exhibits? That might be easier. I can just
8 write down the exhibit number than write down all the
9 information. It might go quicker.

10 MS. CELUM: Sure.

11 MS. O'NEILL: Okay.

12 BY MR. WOLF:

13 Q. Next one, Ms. Ringo, again addressed to the
14 Blandin Paper Company dated May 27, '87. The subject is
15 asbestos sampling report. Says attached you will find a
16 report from Pace Laboratories Incorporated outlining the
17 results of the bulk samples that were sent to them from
18 number three boiler.

19 If you look at that, the bulk asbestos analysis on
20 the Blandin Paper Company, they have the sample ID, then
21 they have the asbestos content on the boiler exhaust it
22 was five to fifteen percent chrysotile. Do you see that?

23 A. Yes.

24 Q. Would that indicate to you the insulation on
25 the boiler exhaust?

1 A. Sometimes boiler exhausts are wrapped. Yes.

2 Q. So that wrapping or insulation wrapping on that
3 exhaust that probably got kind of hot?

4 A. Probably.

5 Q. Probably. Had a five to fifteen percent
6 chrysotile in it. And then on the other boiler exhaust
7 it had 30 to 50 percent chrysotile. Do you see that?

8 A. Yes.

9 Q. Is that consistent with what you've seen in the
10 workplace as far as the amount of chrysotile asbestos in
11 insulation on exhaust say for boilers or other exhaust?

12 A. It depends on where it comes from and what they
13 put in. Yes. You find mixed chrysotile insulation,
14 gasket -- sorry, mixture of asbestos types and
15 non-asbestos.

16 Q. Just to follow-up on that, Ms. Ringo, then it's
17 your testimony that in an industrial settings such as a
18 paper mill even, that not all insulation contains
19 asbestos?

20 A. Certainly after -- certainly. That is true.

21 Q. Here's another one that is dated September 13,
22 '87. This is out of Twin Ports Testing, out of
23 Wisconsin, addressed to the Blandin Paper Company. And
24 the designation talking about pipe covering, ceiling, nip
25 and sip. Do you know what that is?

1 A. No, I don't.

2 Q. Do you know what pipe covering is?

3 A. Yes. Nip and sip may be designations from part
4 of the mill. Maybe it's a designation for a location.
5 Because you see pipe covering at the same thing. But I
6 don't know.

7 Q. They have got there bulk samples up there for
8 asbestos. They got the sample number. And they have got
9 on number three, 10 percent chrysotile. Number four, 25
10 percent chrysotile. And on the 25 percent chrysotile,
11 they have got over to the right-hand side, 40 percent
12 cellulose. Do you see that?

13 A. Yes.

14 Q. I don't know if we explained to the jury, what
15 is cellulose?

16 A. Cellulose is what paper is made out of. Wood
17 pulp is cellulose. It's used in lot of ceiling tiles.
18 Backing board. Yes.

19 Q. Next to the last one, this is out of the same
20 company. This is out of the same testing outfit out of
21 Wisconsin. Again, it's Blandin Paper Company; received
22 August 1, 1988, bulk asbestos report. This is the number
23 three paper machine duct work. Do you see that?

24 A. Yes.

25 Q. It says it's a chrysotile -- contains

1 chrysotile, 20 percent chrysotile covering. And then 15
2 percent mineral wool. Do you see that?

3 A. Yes.

4 Q. Is that something you've seen before where they
5 would use insulation say on a duct work type application
6 where a mixture of mineral wool and chrysotile asbestos
7 would be used together?

8 A. Yes, sometimes it's layered like that. Yes.

9 Q. Last one. Again, another abatement
10 publication. This is Blandin Paper Company, dated
11 January 18, 1988. It says attached is the lab report on
12 the samples of material that were taken from the duct
13 work along the walkway on the north side of number four
14 paper machine upstairs. As the report shows, the
15 material is less than one percent asbestos.

16 That just confirms that, is that correct, Ms. Ringo?

17 A. That is what it says.

18 Q. Looks like it's 80 percent mineral wool, one
19 percent or less than one percent?

20 A. That's correct.

21 Q. Both of those were 80 percent mineral wool and
22 have some trace amount, would you say less than one
23 percent would be --

24 A. They can't say no or none is present. They can
25 to say it's less than one percent. Meaning it might be

1 there as a trace and they just didn't see it. But when
2 you are looking at it optically and when you are looking
3 at a group or bulk material, you might not see any. But
4 that doesn't mean there is none, maybe some that you
5 didn't see. So they tend to -- it's scientifically
6 accurate to report it it's less than one percent.

7 Q. Thank you, Ms. Ringo. That is all I have.

8 THE COURT: Do we have additional --

9 MR. YOUNG: I don't have any questions, your
10 Honor. I'm sorry.

11 THE COURT: Okay. You don't have to be sorry.

12 MR. FOLEY: I will take up --

13 MR. YOUNG: I apologize for not responding more
14 quickly.

15 FURTHER EXAMINATION BY MR. FOLEY:

16 Q. Ms. Ringo, in the scientific literature, if
17 something is peer-reviewed, if an article gets in the
18 literature, does that mean it is automatically
19 authoritative?

20 A. No.

21 Q. Does it mean it's been looked at and someone
22 said we should put this out there for scientists to look
23 at?

24 A. Yes. It means that the editors deem it of
25 interest to the readers but in no way do they go

1 invalidate everything that's in the article is correct.

2 Q. If you are going to write an article in the
3 peer-reviewed literature, is it proper to hide your
4 affiliations or should you disclose your affiliations and
5 interests?

6 A. Well, I actually -- part of my -- what I saw in
7 that article I immediately went and looked at the
8 requirements for submission to that journal. If you were
9 doing that work, in any way related to litigation, you
10 were suppose to disclose that to the editor. Longo did
11 not do that.

12 Q. This work that Longo did that he published, who
13 funded that work based on your knowledge of Mr. Longo and
14 his laboratory and these work practice simulations?

15 MR. WOLF: Objection, your Honor, foundation,
16 speculation.

17 THE COURT: Objection is sustained on
18 foundation.

19 BY MR. FOLEY:

20 Q. Do you have knowledge of Dr. Longo's source for
21 who put him up to doing the studies and who paid for
22 them?

23 A. No. I really don't.

24 Q. So you don't know -- great. Does Longo
25 disclose that in his paper --

1 A. No. He does not.

2 Q. -- that did this as part of his litigation
3 consulting work?

4 A. No. He does not.

5 Q. Does he disclose that he is a testifying expert
6 for the Waters and Kraus and other plaintiffs law firms
7 across the country?

8 A. No, he does not.

9 Q. Does he disclose that the business of MAS, his
10 laboratory that he owns, is litigation support for
11 plaintiffs attorneys in asbestos litigation?

12 A. No. He does not.

13 Q. Is that a problem in the peer-reviewed
14 literature to not disclose that information so the reader
15 can decide whether you have a bias or not with the work
16 he did?

17 A. Yes, it is.

18 Q. Now, one thing Longo says, he says that even
19 with his study the work he is doing under his normal
20 lighting conditions, none of this dust was visible. It's
21 all invisible, right?

22 A. That's correct.

23 Q. Okay. And when you did your work in the field
24 doing this air monitoring, the gasket and packing work,
25 did you see clouds of dust coming off gaskets?

1 A. You can see small amounts of what I would call
2 maybe with the pneumatic grinder, little poofs on
3 occasion. When it's just grinding or when you are just
4 scraping and then wire brushing normal, you see debris,
5 but not what I would consider clouds of dust. And
6 certainly not clouds of dust like you would see with a
7 thermal insulation. I don't see that.

8 Q. Now, Mr. Wolf asked you about Longo's numbers
9 here. They went through some kind of math quiz with you
10 with the box and everything.

11 If we took the scientific literature that has been
12 consistent throughout time about the insulator fiber
13 release and insulator exposure levels?

14 A. Yes.

15 Q. You took those samples that were reported as
16 PCM, and you subjected them to that indirect -- that
17 shaking thing that Longo does to break them all up?

18 A. Right.

19 Q. And then you put them under the TEM microscope
20 to count them like Longo did.

21 A. Right.

22 Q. Where would those numbers go?

23 A. It would still be the same order of magnitude
24 as we have talked about before. That those make it look
25 like a larger number but then the thermal insulation

1 numbers would be up in the trillions. And it's just not
2 the way you measure it. And the standard would then have
3 to be based on times a million.

4 Q. So if we did the Longo --

5 A. It's a mathematical --

6 THE COURT: You both can't be talking at the
7 same time.

8 THE WITNESS: I'm sorry.

9 MR. FOLEY: My apologies. It's my fault, your
10 Honor.

11 BY MR. FOLEY:

12 Q. If we did the Longo method, which is not OSHA
13 approved, right?

14 A. No, it's not.

15 Q. But if we did that method and wanted to count
16 the insulation exposures, we would be in the trillions?

17 A. Absolutely.

18 Q. Well, if I wanted to come here and ask you to
19 use Longo's method to try and, you know, make insulation
20 look even worse than it is, and I asked you to do that,
21 what would you tell me?

22 A. I would ask, do you want the science fiction
23 part of how to do this or making a movie? But it
24 wouldn't be valid and I wouldn't do it.

25 Q. All right. That is why we didn't talk about

1 it. It's not valid, is it?

2 A. No. It's not. Under the TEM, he is talking --
3 he calls them fibers. But in the TEM method, you have to
4 call them structures. Because they are no longer fibers.
5 And the method is so different. So even what he reported
6 in his charts are inaccurate. That is why I don't
7 consider it credible at all.

8 Q. Longo's work, you indicated earlier, has been
9 criticized in the subsequent peer-reviewed literature, is
10 that right?

11 A. Yes, it has.

12 Q. That would be -- the most recent criticism of
13 that would have been in the Journal of Toxicology and
14 Environmental Health by Drs. Madl, Paustenbach and Clark,
15 is that right?

16 A. That's correct.

17 MR. WOLF: Your Honor, I'm going to object,
18 this is hearsay. This is direct examination by his own
19 witness.

20 THE COURT: Overruled.

21 BY MR. FOLEY:

22 Q. Now, this is the Madl study, I'll call it the
23 Madl, M-a-d-l study for short, right?

24 A. Yes.

25 Q. I think you mentioned this yesterday, this is

1 that meta-analysis of all the work that's been done all
2 the way going back to the Navy study by Liukonen and --

3 A. That's correct.

4 Q. And they even include Longo in here?

5 A. Yes, they do.

6 Q. They say that Longo's study was not consistent
7 with other occupational exposure evaluations of gasket
8 work. That is what you talked about yesterday?

9 A. That's correct.

10 Q. You would agree with that statement?

11 A. Absolutely.

12 Q. And they said that his sample filters were
13 overloaded with the dust before he started. That is what
14 you told us yesterday?

15 A. Some of them were.

16 Q. The environment in which the study was
17 conducted was not cleaned prior to starting the study?

18 A. That's correct.

19 Q. Is that a scientific shortcoming?

20 A. Absolutely.

21 Q. And the fact they say this is a series
22 shortcomings in the study, don't they.

23 Now, they had overloaded filters. If you have an
24 overloaded filter, is it valid to count it?

25 A. No. It is not.

1 Q. They did that indirect preparation method and
2 they cite to Dr. Boelter saying that's known to
3 overestimate the fiber counts?

4 A. Yes, it is. That indirect method was designed,
5 it's an ASTM method for taking surface dust samples. And
6 it's even if the second paragraph it says this is not to
7 be used for air samples. So he is taking a method that
8 says don't do this and does it. It's just not valid.

9 Q. Is that NIOSH 7402?

10 A. No.

11 Q. What's the NIOSH number for? I know there is a
12 standard for indirect.

13 A. I believe it's either -- I don't recall. It's
14 like D155, it's an ASTM method. It's not NIOSH. It's
15 not for exposures, NIOSH would not validate that method.

16 Q. The ASTM standard for surface dust, that is if
17 I went and I swiped dust off the surface of a table or
18 glass or this bench and bar here and I wanted to measure
19 that dust after I did a swipe?

20 A. Yes. Actually you vacuum it up using a filter
21 cassette and the pump like we do. And you vacuum up a
22 set square centimeters, a hundred square centimeters.
23 And then you take and you have to rinse it, do the
24 indirect. And it's a range of structures that you get
25 that will tell you whether a surface is clean or not.

1 It's a really a gross examination. It's not meant to be
2 detailed or finally tuned like he does.

3 Q. Does it have any application to airborne
4 sampling of a the worker's breathing room?

5 A. Absolutely not. As I said, one of the
6 paragraphs in there said, this is not to be used for air
7 samples.

8 Q. Is it approved by EPA, AHERA or NIOSH method?

9 A. No.

10 Q. Does Longo's studies, are they -- how would
11 you describe them in terms of there orders of magnitude
12 difference from every other study that has been done by
13 anybody looking at how workers actually remove gaskets
14 and packing in the real life workplace?

15 A. I would describe them as they were described in
16 a presentation at the American Industrial Hygiene
17 Conference, that was evaluating all of the different
18 studies and looking at the results. And when you apply a
19 statistical analysis to it, they are so far out on the
20 curve that they qualify as what is called a outlier.
21 They have no valid statistical significance to the body
22 of work that has been done historical with gaskets and
23 packing.

24 Q. That was expressed at one of your national
25 conferences?

1 A. Yes. It was.

2 Q. Table four in the Madl report summarizes, does
3 it not, the removal of the gaskets and flange face
4 cleaning that workers do, right?

5 A. I believe so. I didn't memorize the titles off
6 of the tables.

7 That is still out of focus a little back here.

8 Q. I probably screwed it up. While they are
9 fixing that, let me -- can you see that?

10 A. Somewhat, yes.

11 Q. All right. Let's see if we can -- we have got
12 the Navy study, that didn't have anything to do with
13 litigation, did it?

14 A. No.

15 Q. That is the Liukonen, the Bremerton Washington
16 shipyards?

17 A. That's correct.

18 Q. Their average is 0.11 by PCM?

19 A. Yes. That is of the actual samples. That is
20 not time weighted.

21 Q. That is not time weighted?

22 A. No.

23 Q. Those are the peak exposures?

24 A. Yes.

25 Q. So the 0.3 to 0.18 is then what, that is the

1 range?

2 A. That is the range.

3 Q. All the samples?

4 A. All the samples.

5 Q. Before you put a time weighted average?

6 A. That's correct.

7 Q. If you pop that into a time weighted average

8 standard, what would happen to those numbers?

9 A. Based on the times, and I've done that, they

10 are all less than 0.01.

11 Q. Okay. For a worker, that is a good thing?

12 A. Correct.

13 Q. Then we get to -- there is the Navy. Then you

14 get to Cheng and McDermott. And their numbers are

15 relatively consistent. Would that be considered

16 scientifically consistent or inconsistent?

17 A. Consistent.

18 Q. These are all the peak exposures not time

19 weighted averages?

20 A. That's correct.

21 Q. Then you jump down here to Longo, where it's

22 15.3 fibers and his 3.7 fibers. Does any the other study

23 than what Mangold did a whole bunch of them and Boelter

24 did a whole bunch of them, does anybody come close to

25 even 1.0?

1 A. No, none.

2 Q. Did Mangold, when he did his studies, that was
3 done for scientific purposes?

4 A. It was done at the request of the gasket
5 company to determine what the exposures were.

6 Q. Okay. And we saw from another gasket company
7 earlier, the Durabla Gasket Company, is Plaintiff's
8 Exhibit 1703. We looked at this briefly yesterday. So
9 he have another study we could put in here. And it shows
10 time weighted average was .004?

11 A. Yes. I report that as less than 0.01.

12 Q. Okay. That seems to be consistent with all the
13 other work that has been done?

14 A. Very consistent.

15 Q. So if we get to the end of the day and we are
16 talking about Longo, how would you describe his
17 scientific validity?

18 A. There is none.

19 Q. Junk?

20 A. Junk science.

21 Q. You're in here today testifying at my request?

22 A. Yes.

23 Q. Have you testified on behalf of injured workers
24 in other matters?

25 A. Yes. I have.

1 Q. Do you have a bias against workers?

2 A. Absolutely not. I've dedicated my -- I have
3 dedicated my entire life to making sure that workers are
4 protected.

5 Q. Why is that?

6 A. My father died of an occupationally induced
7 disease. If I thought that I was doing anything that
8 would injure a worker, make anybody go through any kind
9 of experience like we did, I would be very upset. I
10 would not do it.

11 Q. Thank you, ma'am. Those are all the questions
12 that I have.

13 MR. YOUNG: No questions.

14 MR. WOLF: Very briefly, your Honor.

15 FURTHER EXAMINATION BY MR. WOLF:

16 Q. The paper, Ms. Ringo, that Mr. Foley showed you
17 talked a lot about Navy gaskets and studies with regard
18 to the Navy. Do you recall that? The gaskets studies?

19 A. The Bremerton study?

20 Q. Yes, ma'am.

21 A. Yes.

22 Q. Those were Navy gaskets. And in Dr. Longo's
23 papers, gaskets that he was studying, they came from a
24 paper mill powerhouse in Oregon, correct?

25 A. That is what it says.

1 Q. Now Dr. Longo also testifies for defendants in
2 asbestos litigation. Do you think he should have put
3 that in his paper as well?

4 MR. FOLEY: Objection, lacking in foundation.

5 THE COURT: Overruled.

6 THE WITNESS: I would say if he testifies for
7 litigation in any way that should have been in there.

8 BY MR. WOLF:

9 Q. Okay.

10 A. It's required by the rules when you submit a
11 paper to the editor of the journal.

12 Q. Okay. And this paper that you and Mr. Foley
13 just talked about, one of the authors is Dennis
14 Paustenbach. Do you know that Dennis Paustenbach has
15 testified for many years for many defendants in asbestos
16 litigation all over this country, true?

17 A. That is true. They stated in the paper that
18 they are involved with litigation and have done that
19 work.

20 Q. The statements in here from Mr. Boelter, you
21 are also aware that Mr. Boelter has testified for years
22 for defendants in asbestos litigation all over this
23 country for many years, true?

24 A. They have found his work to be supportive of
25 their defense. Yes.

1 Q. And even Mr. Mangold, he testified for
2 defendants in asbestos litigation for many years all over
3 this country, true?

4 A. That's true. And it's in his papers where he
5 published that. Yes.

6 Q. I don't know if you can read that small print
7 at the bottom. I will read it. Can you see that Ms.
8 Ringo?

9 A. I can see most of it.

10 Q. Says, the authors appreciate the assistance of
11 Carl Mangold. That is Mr. Mangold that we were talking
12 about that used to testify all over the country for the
13 defendants in this type of litigation.

14 A. Right. After he retired from the Navy and
15 working with Dr. Selikoff. Yes.

16 Q. For providing invaluable insight into the
17 worker activities associated with removal and
18 installation of gaskets and packing. Although we
19 initiated this evaluation, financial support for the
20 underlying research was provided by a pump manufacturer
21 involved in asbestos-related litigation regarding gaskets
22 and packing. One or two of the authors has also served
23 or may serve as expert witnesses in related litigation.
24 Do you see that?

25 A. That is what they should say. If they do that

1 work and then they find that information to be useful,
2 they should put that in as a disclaimer for the
3 publication of the article. Absolutely.

4 Q. Thank you, ma'am.

5 THE COURT: Anything further from anyone?

6 MR. FOLEY: Nothing, your Honor.

7 MR. YOUNG: No, your Honor.

8 THE COURT: You may step down. Thank you.

9 THE WITNESS: Thank you.

10 THE COURT: It would appear we have reached
11 lunch time. I'm going to give you a little longer than I
12 have been giving you for lunch. Let's say 1:30. We have
13 some things we need to do. Hopefully we will get started
14 at 1:30. Thank you.

15 (Whereupon the jury was excused).

16 (This concludes the morning session).

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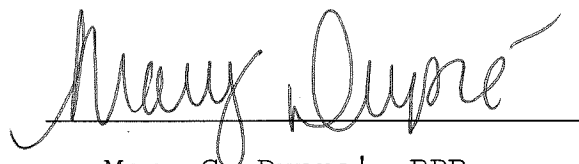
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C E R T I F I C A T E

I, Mary C. Dupre', Court Reporter, do hereby
certify that the foregoing pages 1 through 111,
inclusive, comprise a full, true and accurate transcript,
to the best of my ability, of the proceedings held before
Dale B. Lindman, Judge of District Court, at the Ramsey
County Courthouse, St. Paul, Minnesota.

Dated this 20th day of February, 2009, at Apple
Valley, Minnesota.



Mary C. Dupre', RPR

Court Reporter