

THE STATE OF SOUTH CAROLINA
In The Court of Appeals

RECEIVED

SEP 07 2018

APPEAL FROM SPARTANBURG COUNTY SC Court of Appeals
Court of Common Pleas

Jean H. Toal, Circuit Court Judge

Appellate Case No. 2017-002611
Case No. 2016-CP-42-1592

Beverly Dale Jolly and Brenda Rice Jolly, ... Respondents,

v.

General Electric Company, et al., ... Defendants,

Of whom Fisher Controls International LLC and Crosby
Valve, LLC are the Appellants.

RECORD ON APPEAL
VOLUME II

C. Mitchell Brown A. Mattison Bogan James B. Glenn Nicholas A. Charles NELSON MULLINS RILEY & SCARBOROUGH LLP 1320 Main Street / 17th Floor Post Office Box 11070 (29211-1070) Columbia, SC 29201 (803) 799-2000 Attorneys for Appellants Fisher Controls International LLC and Crosby Valve LLC	Theile B. McVey, Esq. John D. Kassel, Esq. KASSEL McVEY ATTORNEYS AT LAW Post Office Box 1476 1330 Laurel Street (29201) Columbia, SC 29201 Jonathan M. Holder, Esq. Lisa White Shirley, Esq. (<i>Pro Hac Vice</i>) DEAN OMAR BRANHAM, LLP 302 North Market Street, Suite 300 Dallas, TX 75202 jholder@dobllp.com Attorneys for Respondents

**RECORD ON APPEAL
INDEX**

VOLUME I

ORDERS and JUDGMENTS

Judge Toal's Order denying Fisher and Crosby's motion to quash Plaintiffs' trial subpoenas filed September 25, 2017;.....	1
Judge Toal's Order Denying Defendants' Post-Trial Motions and Granting Plaintiffs' Motion for New Trial Nisi Additur filed December 15, 2017	9
Judge Toal's Form 4 Order denying Fisher and Crosby's Joint Motion to Reconsider filed December 21, 2017;	48

VERDICT FORM

Verdict Form dated August 3, 2017	52

PLEADINGS

Plaintiffs' Complaint filed April 25, 2016;	55
Fisher's Answer filed June 6, 2016;	93
Crosby's Answer filed June 16, 2016;	111

TRANSCRIPTS

Transcript of July 18, 2017 motions hearing before Judge Toal	128
Transcript of July 21, 2017 telephonic hearing before Judge Toal	330
Transcript of Trial dated July 24, 2017, through August 3, 2017	336
July 24, 2017, Vol 1	336
July 25, 2017, Vol 2	405

VOLUME II

July 25, 2017, Vol 2 continued beginning page	500
July 26, 2017, Vol 3	655

VOLUME III

July 27, 2017, Vol 4	926
July 28, 2017, Vol 5	1173
July 31, 2017, Vol 6	1358

VOLUME IV

July 31, 2017, Vol 6 continued beginning page	1426
August 1, 2017, Vol 7	1586
August 2, 2017, Vol 8	1877

VOLUME V

August 2, 2017, Vol 8 continued beginning page.....	1926
August 3, 2017, Vol 9	2215

VOLUME VI

August 3, 2017, Vol 9 continued beginning page.....	2426
Transcript of September 20, 2017 hearing on post-trial motions;	2444

TRIAL EXHIBITS

Plaintiff Exhibit 102 —1934 Transactions of the National Safety Council.....	2521
Plaintiff Exhibit 149 — Walsh-Healey Public Contracts Act.....	2539
Plaintiff Exhibit 155 — Federal Register, Vol. 37 No. 110, Rules and Regulations.....	2571
Plaintiff Exhibit 160 —NIOSH Revised Asbestos Standard	2576
Plaintiff Exhibit 929 — CV of Arnold R. Brody, Ph.D.....	2677
Plaintiff Exhibit 936.1 — CV of Arthur L. Frank, M.D., Ph.D.	2705

VOLUME VII

Plaintiff Exhibit 936.2—Affidavit of Arthur L. Frank, M.D., Ph.D.	2734

VOLUME VIII

Plaintiff Exhibit 936.2 — continued beginning page.....	2927
Plaintiff Exhibit 940 — Fisher Invoices — Catawba.....	2950
Plaintiff Exhibit 945.3219 — Instructions for the Operation and Maintenance of Crosby Safety Valves	3309
Plaintiff Exhibit 948 — Fisher Controls Valve Handbook, Second Edition	3317

VOLUME IX

Plaintiff Exhibit 948 — continued beginning page	3427
Plaintiff Exhibit 972 — CV of Dr. John Coulter Maddox	3526
Plaintiff Exhibit 1008 Asbestos Elimination Project, Fisher Governor.....	3529
Plaintiff Exhibit 1008.1964 — Fisher Material Specification FMS 17AG	3572
Plaintiff Exhibit 1008.10670 — Letter from Paul Adams to Fisher University Hygienic Lab 7/11/90	3579
Plaintiffs Exhibit 1008.10665 — Letter from Paul Adams at Fisher dated 7/9/80 to University Hygienic Lab.....	3580
Plaintiff Exhibit 1012 — Fisher Invoices	3586
Plaintiff Exhibit 1012.2 — Duke P.O dated 9/3/92 to Fisher Controls	3870
Plaintiff Exhibit 1012.3 — Duke PO dated 3/24/93 to Fisher Controls	3874
Plaintiff Exhibit 1012.4 — Duke PO dated 5/19/93 to Fisher Controls	3881

Plaintiff Exhibit 1012.5 — Mill Power Supply PO #H23395-73, 5/24/82 to Fisher Controls.....	3886
Plaintiff Exhibit 1012.6 — PO #K022828 dated 3/6/91 from Fisher Controls to Duke	3892
Plaintiff Exhibit 1012.7 — Mill Power Supply PO #M4988-73, 9/10/85 to Fisher Controls.....	3900
Plaintiff Exhibit 2006.037 — Fisher Governor material specification — high temperature packing	3904

VOLUME X

Plaintiff Exhibit 6359.....	3905
Plaintiff Exhibit 6364.01 — Invoice No. 26348 6/22/73 from Crosby to Duke Power Oconee	3944
Plaintiff Exhibit 6364.02 — Invoice No. 27798 9/3/73 from Crosby to Duke Power Oconee	3945
Plaintiff Exhibit 6364.03 — Mill Power Supply PO #82782, 3/22/74 to Crosby	3947
Plaintiff Exhibit 6364.04 — Mill Power Supply PO #H34069-73, 8/16/82 to Crosby	3948
Plaintiff Exhibit 6364.05 — Photocopy of photograph of Crosby valve	3954
Plaintiff Exhibit 6364.06 — Spreadsheet of Crosby valves.....	3955
Plaintiff Exhibit 6395 — Duke Crosby Invoices.....	3962
Crosby Exhibit 533 — cover page and page 3 only — Oury, Pathology of Asbestos-Associated Diseases, Third Ed	4326
Crosby Exhibit 134 — Duke Power Company, “Safe Working Practices When Working with Asbestos” (1977)	4328
Crosby Exhibit 135 — Duke Power Company, “Safe Working Practices for Asbestos Exposure” (1982)	4335
Crosby Exhibit 136 — Duke Power Company, “Asbestos: How to Protect Yourself” (1984);	4347
Crosby Exhibit 152 — OSHA – Federal Register Title 29	4363

OTHER MOTIONS AND MISCELLANEOUS:

Fisher and Crosby’s Joint Motion <i>in Limine</i> 1(P) to Exclude Plaintiffs’ Experts from Testifying That Every Exposure Contributes to Disease filed July 7, 2017, and the following attached exhibit:	4371
Exhibit A — Dr. Maddox Report.....	4386

Fisher and Crosby’s Joint Motion <i>in Limine</i> 1(J) to Exclude Expert Testimony of Dr. John Maddox and Dr. Arthur Frank filed July 13, 2017.....	4390

VOLUME XI

Plaintiffs’ Consolidated Response to Defendants’ Motions to Exclude the Causation Testimony of Plaintiffs’ Expert Witnesses, filed July 13, 2017 with exhibits:	4401

Exhibit 15 – <i>Consensus Report: Asbestos, asbestosis, and cancer: the Helsinki criteria for diagnosis and attribution</i> (1997).....	4430
Exhibit 16 – <i>Consensus Report: Asbestos, asbestosis, and cancer: the Helsinki criteria for diagnosis and attribution</i> (2014).....	4437
Exhibit 17 – <i>Guide for Ship Scrappers: Tips for Regulatory Compliance</i> (Summer 2000).....	4449
Exhibit 18 – OSHA Website, Safety and Health Topics: Asbestos https://www.osha.gov/SLTCasbestos , last visited 1/8/14....	4460
Exhibit 19 – IRAC Monographs on the Evaluation of Carcinogenic Risks to Humans.....	4463
Exhibit 20 – National Cancer Institute Mesothelioma Fact Sheet.....	4466
Exhibit 21 – National Cancer Institute Asbestos Exposure Fact Sheet.....	4470
Exhibit 23 – American Cancer Society: Asbestos	4479
Exhibit 24 – WHO Air Quality Guidelines, Chapter 6.2 Asbestos	4486
Exhibit 25 – CPSC Ban of Consumer Patching Compounds Containing Respirable Free-Form Asbestos.....	4501
Exhibit 26 – Landrigan, et al., <i>The Hazard of Chrysotile Asbestos: A Critical Review</i> (1999)	4504
Exhibit 27 – Hillerdal, <i>Mesothelioma: Cases Associated with Non-Occupational and Low Dose Exposure</i> (1999)	4515
Exhibit 28 – Welch, <i>Asbestos Exposure Causes Mesothelioma, But Not This Asbestos Exposure: an Amicus Brief to the Michigan Supreme Court</i> (2007)	4525
Exhibit 29 – <i>Joyce Rost v. Ford Motor Company</i> (2015).....	4536
Exhibit 30 – Iwatsubo, et al, <i>Pleural Mesothelioma: Dose Response Relation at Low Levels of Asbestos Exposure in a French Population based Case Control Study</i> (1998).....	4579
Exhibit 31 – Rodelsperger et al., <i>Asbestos and Man-Made Vitreous Fibers As Risk Factors for Diffuse Malignant Mesothelioma: Results From a German Hospital Based Case Control Study</i> (2001) .	4590
Exhibit 32 – Rolland, <i>Risk of pleural mesothelioma: A French population Based case control study</i> (2006)	4605
Exhibit 33 – A. Lacourt et al., <i>Occupational and non-occupational attributable risk of asbestos exposure for malignant pleural mesothelioma</i> (2014).....	4608
Fisher’s Motion to Quash Plaintiffs’ Trial Subpoena filed July 20, 2017.....	4619
Fisher’s Memorandum in Support of Its Motion to Quash Plaintiffs’ Trial Subpoena filed July 20, 2017, with the following attached exhibits:	4621
Exhibit A—Trial Subpoena.....	4624
Exhibit B—Affidavit of Philip C. Reid	4630
Crosby’s Motion to Quash Plaintiffs’ Trial Subpoena filed July 20, 2017.....	4631

Crosby’s Memorandum in Support of Its Motion to Quash Plaintiffs’ Trial Subpoena filed July 20, 2017, with the following attached exhibits:	4633
Exhibit A—Trial Subpoena.....	4637
Exhibit B—Affidavit of Robert J. Martin.....	4643
Plaintiffs’ Response in Opposition to Fisher and Crosby’s Motions to Quash Plaintiffs’ Trial Subpoenas filed July 20, 2017	4644
Fisher and Crosby’s Joint Motion to Reconsider the Oral Denial of Their Motion to Quash Plaintiffs’ Trial Subpoena filed July 26, 2017.....	4652
Fisher and Crosby’s Joint Motion for Directed Verdict filed July 31, 2017	4659
Plaintiffs’ Motion for New Trial <i>Nisi Additur</i> filed August 11, 2017	4696
Fisher and Crosby’s Joint Motion for Set-Off filed August 14, 2017	4758
Fisher and Crosby’s Joint Motion for Production of Plaintiffs’ Settlements and Payments With All Third Party Tortfeasors filed August 14, 2017.....	4765
Fisher and Crosby’s Joint Motion for JNOV filed August 14, 2017.....	4770
Fisher and Crosby’s Joint Memorandum in Support of Their Joint Motion for JNOV filed August 23, 2017	4773
Fisher and Crosby’s Brief in Opposition to Plaintiffs’ Motion for New Trial <i>Nisi Additur</i> filed September 6, 2017, with the following attached exhibit:	4804
Exhibit C—Case Summary	4818
Plaintiffs’ Response in Opposition to Fisher and Crosby’s Joint Motion for JNOV filed September 6, 2017	4823
Plaintiffs’ Response in Opposition to Fisher and Crosby’s Joint Motion for Production of Plaintiffs’ Settlements and Payments With All Third-Party Tortfeasors filed September 6, 2017	4861
Plaintiffs’ Response in Opposition to Fisher and Crosby’s Joint Motion for Set-Off filed September 6, 2017.....	4866
Plaintiffs’ Reply in Support of Their Motion for New Trial <i>Nisi Additur</i> filed September 11, 2017	4872
Fisher and Crosby’s Joint Rule 59(e) Motion to Alter or Amend	4875

Fisher and Crosby’s Objections to Proposed Order Drafted by Plaintiffs and Supplemental Memorandum in Support of Their Motions and in Opposition to New Trial <i>Nisi</i> Motion filed October 20, 2017	4880

Certificate of Counsel

1 A Yeah. It was in the air. We was standing right
2 there.

3 Q Okay. And this process of removing the gasket
4 from the main steam line, Unit Number 1 at McGuire, for
5 instance, does that happen in a couple seconds, the
6 gasket removal?

7 A No.

8 Q How long does it take?

9 A It takes a while. I mean, you know, the work
10 crew, they can't just go ahead and -- they can tear up
11 something. They have to take their time. They have to
12 untorque, untorque the flanges or the valves, and most
13 of them would take their time and break the flanges
14 apart, take out the old gaskets, take their 90 grinders
15 or brushes or whatever they clean and clean the face of
16 those flanges. They had to be clean because when it
17 was squeezed back together, the smallest particle in
18 there could cause a leak to come through that gasket.
19 So they couldn't leave anything in there. Had to be
20 completely clean. We had to make sure it was clean.

21 Q Your job was to inspect and make sure, after the
22 removal, there was no little particles?

23 A Yeah. We carry flashlights and mirrors with us to
24 make sure all the time, all the time.

25 Q And, Mr. Jolly, the challenge to that was also to

1 clean off the gasket from the flange face and not mess
2 up the metal as well, right?

3 A Oh, very much so. Or get anything down in that
4 valve. I mean, that was of immediate concern. Foreign
5 material, you know, they didn't want to get anything
6 into that system.

7 Q So talking about this system, what was this system
8 connected to, since you have it in mind? Like where
9 does it fit in the power production, the main steam
10 valve, the reheater valves at McGuire Number 1, where
11 do they fit into the power production system?

12 A The main steam line?

13 Q Uh-huh.

14 A Okay. They -- well, in the auxiliary building,
15 like at Oconee, they've got three main turbines. One
16 for Unit 1, 2, and 3. And they drive the turbines.
17 The steam drives these turbines. And when all three --
18 and steam is coming through all three of these. All
19 these main lines hooked up to a turbine to drive and
20 make the power for the public. And the same at Unit 2.
21 There's two units at Catawba and two at McGuire. It's
22 the same process. It's coming from the steam generator
23 to the turbines through those lines, yes.

24 Q And with your training and your work, do you have
25 an estimate of the temperature ranges of the steam

1 that's going to be coming through these main steam
2 lines?

3 A I know it's over a thousand degrees. I mean, you
4 know, it's maybe 1,200 PSI or -- and the pressure on it
5 is amazing. It's amazing. It's amazing.

6 About 20 years ago, one of the steam lines broke
7 at Ocone in the basement and broke the skin off of two
8 or three people. And one guy was blinded by the steam.
9 And instead of starting to crawl away from it, he
10 crawled back towards it. And that actually happened.
11 And they had to retire all three of those guys. I
12 mean, I think there's one lady and two men, you know.
13 That's how it can hit you.

14 Q McGuire Number 1 main steam line and the valve and
15 the flanges that go with the reheater turbine, did they
16 have these high temperatures that you just described in
17 the 1,000 degrees, 1,200-degree range?

18 A Yes, ma'am, yes, ma'am.

19 Q And so the gaskets that would have been used on
20 those lines, would that have been rubber?

21 A No, ma'am.

22 Q Cork?

23 A No, ma'am.

24 Q Vegetable fibers?

25 A No.

1 Q What kind of gaskets?

2 A Asbestos.

3 Q Because of the application was used --

4 A Asbestos gaskets. It was actually one of the best
5 gaskets.

6 Q Performance-wise?

7 A Performance-wise, yes, ma'am. Not health-wise but
8 performance-wise, yes.

9 Q Mr. Jolly, we looked at the various plants, and we
10 have a lot of documents. Did you work in areas where
11 people were removing asbestos gaskets from Crosby
12 valves at McGuire during the outages and shutdowns that
13 occurred there?

14 A Yes, ma'am.

15 Q One or two or can you estimate how many Crosby
16 valves we're talking about?

17 A I didn't go by and count them, but I was in the
18 vicinity, you know. And I was there -- chances are I
19 was there.

20 Q How many valves at McGuire plant, for instance?

21 MR. REID: Objection, Your Honor. Vague and
22 indefinite.

23 THE COURT: Overruled.

24 THE WITNESS: A good many. That's all I can say.
25 I can't go back and count them right now. I can't go

1 back and recall them. You know, there were a good
2 many.

3 BY MS. FARRISE:

4 Q How about this, lots or little?

5 A I'd say kind of in between, you know.

6 Q Okay. We're going to have Mr. Taylor here. Do
7 you know Mr. Taylor, David Taylor?

8 A I think so, yes.

9 Q Okay. That was my next question. When there
10 would be outages and shutdowns --

11 A Yes, ma'am.

12 Q -- how many Duke Power and other contractor folks
13 were on-site doing work?

14 A I'd say they bring in 2,000 people. It would be a
15 lot of people. You wouldn't believe it. It was 1,600
16 to 2,000, yes.

17 Q So did you know everybody's names that worked on
18 outages and shutdowns?

19 A No, just my immediate crew that I love and work
20 with.

21 Q Same question for Fisher. Mr. Jolly, did you work
22 in the areas in the ways that you've described when
23 asbestos-containing gaskets were removed from Fisher
24 valves at McGuire?

25 A Yes. A lot of Fisher valves too. I remember them

1 too.

2 Q A lot of Fisher valves?

3 A Yes, yes, yes.

4 Q And was the --

5 A I remember the Crosby and the Fisher, a lot of
6 them, yes. But I'm not saying how many. I can't tell
7 you how many. I'd say a lot of them, yes.

8 Q If the business of Crosby is to make safety and
9 relief valves for these plants, are those the type of
10 valves that your work caused you to work on in terms of
11 those valves?

12 A Definitely. Definitely, yes, ma'am.

13 Q And did you also -- you told us about McGuire, and
14 we have that, but you mentioned these other plants,
15 Ocone and Catawba.

16 Let's take Ocone. During this time period, 1980
17 to '84, did you work at Ocone?

18 A Oh, yes, ma'am.

19 Q And tell the jury why.

20 A Well, we were on the -- '80 to '84?

21 Q '80 to '84 when you were a mechanical inspector.

22 A Yes, yes, yes.

23 Q Why would you be at Ocone if you were at McGuire?

24 A I was primarily at McGuire, then we went to --
25 they would loan us out to Ocone, you know, because

1 during an outage, they didn't have enough inspectors.
2 And they brought all these people in, might be 1,600 or
3 2,000 vendors, and everybody working on all these
4 flanges and valves, and they just needed other
5 inspectors. And we would go to Ocone too. We would
6 go down there and stay in a hotel and work on the
7 flanges and whatever mechanical they needed. We did
8 it, yes, ma'am.

9 Q And was your work the same, Mr. Jolly, at Ocone
10 in terms of the mechanical inspection and being there
11 while removing the gaskets?

12 A Yes, ma'am, at all three.

13 Q That's during this 1980 to '84 time period?

14 A Yes, ma'am. Yes, ma'am.

15 Q And were you in the areas of the safety and the
16 steam lines --

17 A Yes, ma'am.

18 Q -- where people -- hang on. You're doing great.
19 But this lady, we're giving her quite a heartburn. She
20 can only take down one person at a time. Okay? So
21 we're going to be gentle on her.

22 A I won't say another word.

23 Q As part of the outages and during this period,
24 1980 to '84, on the three units at Ocone, did you --
25 were you regularly and consistently in the area where

1 people were removing asbestos-containing gaskets from
2 valves that were manufactured by Fisher and Crosby?

3 A Yes.

4 Q And did that work create dust?

5 A Yes.

6 Q And did you breathe that dust, Mr. Jolly?

7 A Yes, I did.

8 Q Throughout the time that you worked at Duke
9 Energy, first as a regular guy and then you got called
10 back into service, did any documents or people or
11 manuals from Crosby or Fisher ever warn you that being
12 exposed to asbestos from the materials with their
13 gaskets could hurt you?

14 A No, they did not. No.

15 Q How about Duke? Did they have safety meetings?

16 A Yes.

17 Q What about? How often, generally speaking?

18 A Probably at least -- sometimes we would have a
19 small safety meeting every week. Maybe a major one
20 every month. But every week. And in the morning, you
21 know, we'd have maybe a five-minute safety meeting just
22 telling everybody to watch out for everybody else and
23 make sure you wear your safety harnesses if you get
24 over five or six feet off the floor and stuff like
25 that. But they -- they told us try to avoid the

1 asbestos abatement areas, you know, because where they
2 were taking it out, they said don't be going into any
3 of those orange tents. Because they had to have the
4 abatement people in there with respirators, and they
5 had it tented up where they were taking out the
6 asbestos at that time, we couldn't go in any of those
7 tents.

8 Q Mr. Jolly, do you want to take a break, Hon?

9 A I'm fine.

10 Q I see you're trying to power through, so I'm going
11 to jump right through and try to cover --

12 THE COURT: One moment, Ms. Farrise. All right.
13 Jury, are you good?

14 THE WITNESS: Could I take a small break?

15 THE COURT: Yes, sir. You could. Absolutely,
16 Mr. Jolly. I think we all could use a small break.
17 Why don't we take a ten-minute break.

18 (WHEREUPON, the jury exited open court at
19 11:11 a.m.)

20 (WHEREUPON, a recess was taken from 11:11 a.m. to
21 11:20 a.m.)

22 MR. McLEOD: I don't know if it's appropriate for
23 them to be speaking.

24 THE COURT: You can talk about things related to
25 Mr. Jolly's comfort, but you can't talk to him about

1 any questions.

2 THE WITNESS: Yes, ma'am. Yes, ma'am.

3 THE COURT: Please assure your colleagues --

4 I think they're just talking about things related
5 to his comfort.

6 MS. FARRISE: We're really talking about like how
7 much more runway we've got on this race.

8 THE COURT: That's perfectly legitimate. Just
9 want to be sure not to talk about the questions or the
10 case.

11 I think we're okay, Yancey.

12 (WHEREUPON, a recess was taken from 11:20 a.m. to
13 11:23 a.m.)

14 THE COURT: Mr. McLeod wishes to place something
15 on the record.

16 Mr. McLeod.

17 MR. McLEOD: We would obviously renew -- just
18 wanted to make the record clear that we renew our
19 objection to the admission of these exhibits without a
20 witness on the stand, particularly the presentation
21 that was given by plaintiffs' counsel without a
22 witness. You know, they offered to put them into
23 evidence, not give a presentation to the jury, with the
24 colloquy of counsel, and we renew our objection. The
25 *Pritchard* case is distinguishable. In that case the

1 witness read them, read the documents in, not the
2 attorney giving a presentation to the jury without a
3 witness on the stand, and we would move to strike the
4 exhibits based on that.

5 THE COURT: Very good. And, of course, I'll
6 repeat my prior ruling that these are ancient
7 documents; they came into evidence as ancient
8 documents, do not need any further authentication.

9 The foundation is also laid by the affidavit of
10 the Duke repositor of the records; and particularly
11 with ancient records, there is no further need for any
12 foundation.

13 In addition to that, the basis of my ruling on
14 that, the colloquy that was engaged in with Mr. Bouch
15 when we talked about this before and the agreements
16 that were made then, the examination of the documents
17 with Mr. Jolly, the documents came in, she simply
18 pointed to things in the documents, and then she began
19 her examination of Mr. Jolly, and he's free to be
20 examined on any document that is in evidence, as I view
21 it. And I understand completely that you all disagree,
22 and your objection is completely preserved.

23 MR. McLEOD: Thank you, Your Honor. I would just
24 note that I don't believe the affidavit was ever read
25 to the jury, so there's no foundation for that.

1 And, additionally, just a housekeeping matter, the
2 exhibits that were entered over our objection, I
3 haven't seen the exhibit stickers or numbers on them.
4 I don't know -- I would like to have a copy with the
5 exhibit numbers. I walked up and saw one of them while
6 we're at recess, and I think they're just written
7 numbers on them, and I'm not -- I have no way of
8 knowing that they're the exact documents.

9 THE COURT: That's a legitimate objection on your
10 part, and I would direct counsel to be sure that we
11 have proper exhibit numbers affixed to these documents
12 and that Mr. McLeod has copies of the documents as
13 introduced. I think that's certainly something that
14 needs to be done.

15 And, Counsel, you need to tend to that just as
16 soon as you have a break and are able to do so.

17 MR. McLEOD: I think the court reporter and the
18 clerk obviously need to have -- I don't see them up
19 there, so --

20 THE COURT: I agree with that. I thought these
21 matters had been premarked, and I thought that's what
22 was being read. And if that's not been done, it needs
23 to be done.

24 MR. HOLDER: Jonathan Holder for the plaintiffs
25 just really quickly. I am labeling them as we speak.

1 We had the numbers written on them. That's why we're
2 attaching stickers. But these were produced earlier by
3 e-mail.

4 THE COURT: I understand, but that's a different
5 question. They have been put in evidence, and
6 Mr. McLeod is quite right to insist that we have got to
7 do it as it should be done and not just reading some
8 Bates numbers or something like that off of them.

9 MS. FARRISE: I think it's clear, Your Honor, but
10 I did offer the particular documents, and only as to
11 one of them I think you actually said on the record
12 "admitted." But I think it's clear that you have
13 admitted them all.

14 THE COURT: Well, we want to get some housekeeping
15 done, get these things numbered, and then we'll get the
16 record to completely reflect the numbers you used when
17 you introduced them. So that housekeeping is going to
18 be done, needs to be done.

19 Bring us the jury, please.

20 (WHEREUPON, the jury entered open court at
21 11:28 a.m.)

22 THE COURT: All right. We'll resume.

23 Please have a seat, members of the jury. And
24 we're now resuming the examination of the plaintiff,
25 Mr. Dale Jolly.

1 Ms. Farrise.

2 MS. FARRISE: Thank you, Your Honor.

3 Q A little bit more, Dale.

4 A Yes, ma'am.

5 Q Okay.

6 A Go ahead.

7 Q I want to ask you, did you do any of the kind of
8 inspection work that caused you to be in the areas
9 where gaskets were being removed during the time that
10 you were an instructor from 1984 to 1994?

11 A I instructed one class. I was taught how to put
12 packing in a valve. And I taught just a couple of
13 classes on how to put packing in that valve, you know.
14 It was a long -- looked like a snake, and you pack it
15 down in it. And it had to be asbestos. It was
16 asbestos packing.

17 MR. REID: Your Honor, I think this is beyond the
18 scope of the question. Move to strike the last
19 comment.

20 THE COURT: Overruled.

21 Go ahead, Ms. Farrise.

22 BY MS. FARRISE:

23 Q Go ahead, Mr. Jolly. Did you work with valves
24 during the time that you were the instructor in 19- --

25 A You know, I don't know at the time. I can't tell

1 you at the time right now what kind of valve it was.

2 Q What's --

3 A But it had packing in it to keep the water from
4 coming out.

5 Q Can you tell us what plant it was?

6 A No. It was an instruction class down at
7 Mt. Holly, yes, yes. I just taught two or three
8 classes. It wasn't many. Maybe two or three, you
9 know.

10 Q And you described earlier bigger valves?

11 A Yes.

12 Q If you could --

13 A That's during my instruction period. You know, I
14 mean, I was an instructor so I was in and out of the
15 plants. I taught blueprint reading.

16 Q Blueprint reading?

17 A Blueprint reading, yes, on all the different types
18 of valves and equipment and, you know, how to identify
19 a valve. I forgot now all the valves. It's all kind
20 of valves, but I taught those classes. And I had
21 slides and stuff I would show the class and all of
22 that, you know.

23 Q My question, though, is when you taught people
24 what you were just describing, how to put packing in a
25 valve --

1 A Yes.

2 Q -- that wasn't one of these large valves that we
3 have been talking about?

4 A No, no. They were about four to six-inch valves.
5 They're just small valves in the classroom.

6 Q Ones that you could pick up and take --

7 A Yes, yes, yes, ma'am.

8 Q So then moving on, Mr. Jolly, this period, when
9 you became -- when your work started involving
10 ultrasonic, do you have that period in mind?

11 A Yes, ma'am. Yes, ma'am.

12 Q What was your title?

13 A UT inspector.

14 Q UT inspector?

15 A UT means ultrasonics, yes. U-l-t-r-a-s-o-n-i-c-s.
16 UT inspector.

17 Q I'm sorry?

18 A UT inspector. UT, UT, yes.

19 Q First question. Your job as UT inspector --
20 strike that.

21 How would your job as a UT inspector take you into
22 the power plants?

23 A We were everywhere. Any safety-related system,
24 you know, we were Johnny on the spot. We had to be
25 there. There wasn't many of us. There wasn't many of

1 us because we were stationed at McGuire. And that's
2 where the UT classroom was. Wasn't about but 16 of us,
3 and we had to cover all the plants, all the steam
4 stations, coal-fired stations, and there wasn't many of
5 us at that time because they didn't hire many vendors
6 during that period of time, you know.

7 Q Let's say at the time you started being a UT
8 inspector --

9 A Yes.

10 Q -- stationed at McGuire, did your work cause you
11 to be involved in outages or shutdowns on the McGuire
12 unit?

13 A Yes, ma'am.

14 Q Okay.

15 A Yes.

16 Q And can you describe for the jury what you would
17 be doing as it relates to safety valves in your
18 position as a UT inspector? Why would you be in the
19 area? What would be happening?

20 A Okay. We had to ultrasonically -- ultrasound is a
21 way to looking into metal and looking into that weld.
22 You have to go to both sides of the weld. And we had a
23 special transducer where we could shoot one-sided
24 welds, you know. But we would have to shoot this way
25 with either a 60-degree, 20-degree. We had procedures,

1 and we could see the root of that weld.

2 Q And hang on a second. You're saying "weld,"
3 w-e-l-d, but it's kind of sounding like whale, like
4 Noah in the Bible.

5 A No. Welder, a welder with a shield up, put these
6 pipes together. And we could detect the smallest crack
7 on our UT machine, which are high dollar machines.
8 Most of them cost maybe 10- or \$15,000, these machines.
9 And it had a CRT screen on it.

10 And as you could see the root of that weld, this
11 little green line would come up. And if anything come
12 out on each side of the green thing, we would have to
13 really look at it with different transducers to see.
14 And a lot of times we would have to call the engineer
15 in, or we'd call our level 3 in and he would look at it
16 and say, "Uh, oh. We got a problem. We got a crack.
17 That weld needs to be cut out and redone." That was
18 our job on all the safety-related jobs.

19 Q Were you inspecting the welds on valves?

20 A Definitely, yes, we did.

21 Q And while you were doing your testing that you
22 just described, were people breaking the flanges and
23 removing gaskets in the way that you previously
24 described earlier?

25 A Yes, ma'am. Yes, ma'am.

1 Q And we've been talking about, quote, breaking the
2 flanges. That's kind of a term of art, right?

3 A Yes.

4 Q What does it mean to break a flange?

5 A To break -- to take the flange loose, take the
6 bolts out and take the gasket out, clean it, put a new
7 gasket in, and then torque it back together where it
8 will not leak.

9 Q So breaking the seal between the pipe and the
10 valve?

11 A Yes. Yes, ma'am.

12 Q Not actually breaking the pipe, right?

13 A No. They pull it apart. Most of them would pop
14 apart anyway a little bit, and sometimes they could use
15 devices to spread it just a little bit to where they
16 could get between it and clean it. They had to clean
17 it. That was a must, yes. Yes, ma'am.

18 Q And, Mr. Jolly, during this second period as a UT
19 inspector, did you work in the areas where people were
20 breaking the flanges on Crosby and Fisher valves?

21 A Yes, ma'am.

22 Q And were you exposed to asbestos from the work
23 that these folks who worked around you did breaking the
24 valves on the Crosby and Fisher valves?

25 MR. REID: Your Honor, objection. Foundation.

1 THE WITNESS: Yes, ma'am.

2 THE COURT: Overruled.

3 THE WITNESS: Yes, ma'am.

4 BY MS. FARRISE:

5 Q Did their work create dust?

6 A Yes.

7 Q And did you breathe that dust?

8 A Yes.

9 Q And was the work during the outages around -- as
10 you've described it, was that a regular part of the
11 work that you did as a UT inspector?

12 A Yes.

13 Q And that was true at McGuire?

14 A Yes.

15 Q Catawba?

16 A Yes.

17 Q Ocone?

18 A Yes.

19 Q And did you work at those plants during this
20 second time period? You worked at those plants during
21 the time you were a UT inspector?

22 A Oh, yes.

23 Q How often?

24 A Every outage. We would go down every outage.

25 Q And how often does that occur?

1 A Well --

2 Q An outage?

3 A Most of the time, since Catawba had two units,
4 we'd have one outage at Catawba. Since McGuire had two
5 units, we'd have one outage there. And then Oconee had
6 three, and sometimes we would have two outages down
7 there that year. Or maybe even three. Sometimes we
8 would have three because the fuel didn't last that long
9 at that time. It didn't last very long.

10 Q How long does an outage last?

11 A Some of them in the beginning would last close to
12 two and a half months, three months. I'd say 12 weeks.
13 I worked a lot of 12-week outages at one plant. And
14 the way they would line them up, they would have an
15 outage, come online the day after. We'd have to get on
16 the ball and get our hotel rooms. Like in Rock Hill
17 from Clemson, we'd have to be down there in the next
18 two days, and an outage would start then, and then an
19 outage would start at McGuire, yes. Some of them were
20 kind of back to back, you know.

21 Q And, Mr. Jolly, the jury saw earlier this morning
22 some invoices and purchase orders for Crosby where they
23 would have the Crosby service engineers actually at the
24 site?

25 A Yes.

1 Q During the work that you did, were the actual
2 engineers from the Crosby Valve Company and Fisher
3 Valve Company actually at the site during these
4 outages?

5 A Well, I can't say a hundred percent every time,
6 but I know sometimes they were. You know, a lot of
7 times I would see a Westinghouse or Crosby or Fisher,
8 you know, on their jackets, you know. But I couldn't
9 tell you a hundred percent --

10 Q So I'm not --

11 A -- looking back.

12 Q You finish. Go ahead.

13 A I'm through.

14 Q I wasn't actually asking you for a hundred
15 percent, but thank you for clarifying.

16 During the various outages, the manufacturers who
17 made the equipment at times would have their own
18 engineers right there at the site?

19 A Exactly. They sure did.

20 Q And I think it's obvious, but you knew that
21 because they had their names on their jackets and
22 things like that?

23 A Yes, ma'am.

24 Q Mr. Jolly, I want to just ask you briefly about
25 your health. You -- can you answer some more

1 questions?

2 A Yeah.

3 Q Okay. You told the jury earlier that you started
4 having these breathing problems in December of '15 and
5 into January of 2016. What else have you dealt with
6 with mesothelioma in terms of the treatments and things
7 that you've been through?

8 A (Crying). It's hard for me to talk about it.

9 MS. FARRISE: Your Honor, I withdraw the question.

10 THE WITNESS: It's hard.

11 MS. FARRISE: Mr. Jolly, I withdraw the question.

12 THE WITNESS: It's hurting me.

13 MS. FARRISE: I don't want to hurt you.

14 Those are all the questions I have, Your Honor.

15 THE WITNESS: Yes, ma'am.

16 THE COURT: All right.

17 Counsel, cross-examination.

18 MR. BOUCH: Your Honor, if I could take one thing
19 up with you briefly. I don't know how you want to deal
20 with it.

21 THE COURT: Certainly.

22 (WHEREUPON, a bench conference was held off the
23 record in the presence of the jury, but out of the
24 hearing of the jury.)

25 THE COURT: Ladies and gentlemen of the jury, let

1 me explain what we've been doing here.

2 Mr. Reid is going to conduct the cross-examination
3 of Mr. Jolly. And we have certain parameters that have
4 been ruled upon by me before this case began about
5 certain issues. And we wanted to be sure we were all
6 on the same page about those.

7 And rather than have to get you up, take you out,
8 send you to your room, bring you back, we solved it
9 with a slight sidebar conversation. So I just didn't
10 want you to think, "Hey, they're over there thinking
11 about things and why can't we know about them." We
12 were talking about procedure of how the examination
13 will go.

14 But we will now commence the cross-examination of
15 the plaintiff, Mr. Dale Jolly.

16 Mr. Jolly, everything is good?

17 THE WITNESS: I'm okay.

18 THE COURT: Very good. Very good.

19 All right. Mr. Reid, you may proceed.

20 And what I would suggest, Mr. Reid, if you can,
21 Mr. Jolly wears hearing aids. Frankly, I do too. Mine
22 are pretty good. They tune right up and hear
23 everything. But Mr. Jolly wears hearing aids and his
24 hearing is not the best, so you might want to position
25 yourself where he can see you and you can announce your

1 | questions in a nice firm voice.

2 MR. REID: Understood. I'll do that as soon as we
3 can get something up on the screen.

4 THE COURT: Sure. You take your time. I don't
5 want to rush you in your cross-examination at all.

6 Mr. Jolly, I have been wearing hearing aids since
7 I was in my 30s. I took too many antibiotics. They
8 gave you penicillin for everything when I was a child,
9 and, boy, it attacked the cranial nerve so I've got a
10 lot of hearing loss. But new hearing aids are great.
11 They have improved them tremendously over the years.

12 All right. Mr. Reid, you may proceed.

13 MR. REID: Thank you.

14 CROSS-EXAMINATION

15 BY MR. REID:

16 Q Good morning, Mr. Jolly.

17 A Good morning.

18 Q One thing before we get going. If I ask you a
19 question at any point you don't understand, would you
20 please let me know that?

21 A Okay.

22 Q I just want to make sure you understand, so I'll
23 be happy to repeat or rephrase a question.

24 A Thank you.

25 Q First of all, I just want to take you back to last

1 August. You were -- you had your deposition taken in
2 this case. Do you recall that?

3 A Yes, sir.

4 Q And you knew that it was going to take place for a
5 few weeks in advance of the deposition?

6 A Yes.

7 Q And you knew that at that time that you had sued
8 my clients, Crosby and Fisher?

9 A I didn't know that.

10 Q You didn't know that?

11 A No.

12 Q All right. You do recall when the deposition
13 occurred, the first attorney to ask you questions was
14 your attorney, Ms. McVey?

15 A I think so, yes.

16 Q Okay.

17 A Yes.

18 Q And a deposition is a proceeding without a judge,
19 but there are --

20 A Yes.

21 Q -- lawyers and a court reporter and you're sworn
22 under oath, correct?

23 A Yes, sir.

24 MR. REID: Can you demonstrate or show Exhibit 21,
25 Page 81.

1 MS. FARRISE: I'm sorry. Can I see it first
2 before it goes to the jury?

3 So, Your Honor, my objection is that it's improper
4 cross. There's no prior inconsistent statement.

5 THE COURT: We have pretty open cross in South
6 Carolina, and I'll permit it. Overruled.

7 MS. FARRISE: To show the transcript?

8 MR. REID: For the record, it's a plaintiff so
9 it's not a hearsay issue.

10 THE COURT: Yes, I agree.

11 MR. REID: Your Honor, may I approach the witness?

12 THE COURT: Certainly. And you don't have to ask.
13 I'm not as formal of that. I know you're being
14 respectful of me and the witnesses, so you move about
15 as you wish.

16 BY MR. REID:

17 Q Mr. Jolly, I can show you the transcript, or if
18 you're able to see it up there, we can read along.

19 A Let me get right here. I can read along, I think.

20 Q All right. I'll go both ways. I'll show you the
21 page that I'm going to read. If you care to look at
22 that, feel free.

23 A Okay.

24 Q But I'm not sure I've got the right page there.

25 Looking at Line 20, it says, "From 1979 to 1985

1 when you were doing quality assurance and that sort of
2 thing at Duke, did you have an opportunity to work
3 around folks who were doing maintenance on the valves?"
4 Your answer was "yes," correct?

5 A Yes, sir.

6 Q "Okay."

7 Next page, please.

8 "Definitely."

9 "All right. Do you recall any of the
10 manufacturers of the valves offhand?"

11 "I know we had one-way valves, two-way valves. I
12 remember them, but I can't recall."

13 Did I read that correctly?

14 A Yes, sir.

15 Q And then you were deposed on a few more occasions;
16 is that correct? In other words, that deposition was
17 an instance where you gave --

18 A Tell me one more time from the beginning right
19 there.

20 Q You had four sessions of deposition, correct?

21 A Yes.

22 Q And another lawyer asked you to identify valves,
23 and the only ones you recalled were valves made by
24 Warren and Crane; is that correct?

25 A I think so, yes, ma'am -- yes.

1 Q By the way, earlier you were shown a document that
2 referred to a main steam valve and -- bear with me a
3 minute here -- some reheater valves, correct?

4 A Yes, sir.

5 Q Just so I understand what valves you're talking
6 about, those are valves through which steam goes?

7 A Yes.

8 Q Those are on the line?

9 A Yes.

10 Q And the steam-making process would send steam
11 through those valves continuously?

12 A I think so. I think so.

13 Q You were never trained to work on valves, correct?

14 A Sir?

15 Q You were never trained yourself to work on valves?

16 A No, not work on the valve itself, absolutely not.

17 Q For that purpose, Duke had valve crews, correct?

18 A Exactly, yes.

19 Q There were really two facets to your job in that
20 1980 to '84 period?

21 A Yes.

22 Q One was inspecting pipe to make sure it had
23 integrity?

24 A Yes.

25 Q And the other was torquing the connections?

1 A Yes.

2 Q And those connections might be between pipe
3 sections?

4 A Yes.

5 Q Or pipe-to-valve sections?

6 A Exactly.

7 Q Or pipe-to-pump sections?

8 A Yes.

9 Q Or pipes to other equipment?

10 A Yes, sir.

11 Q And there were miles and miles of pipe at Duke?

12 A Oh, yes. And also to verify the correct gasket
13 went in, yes.

14 Q And the torquing process is the last step in the
15 repair, right?

16 A Yes.

17 Q In other words, the old gasket has been taken out,
18 whether it's between two sections of pipe or a pump and
19 pipe or a valve and pipe?

20 A Yes.

21 Q And the new gasket has been put in?

22 A Exactly.

23 Q The bolts have been put in?

24 A Yes.

25 Q They have been tightened to some extent but not

1 that final few turns?

2 A Yes, yes.

3 Q Are Crosby and Fisher the only valve makers you
4 remember today?

5 A No. There was many more valves, many other types.

6 Q Warren?

7 A Yes.

8 Q Grinnell?

9 A Definitely Grinnell.

10 Q Anchor?

11 A Ingersoll Rand? Yes.

12 Q How about Anchor valves? Anchor, like something
13 you throw off a boat?

14 A Yes.

15 Q Newco?

16 A Yes.

17 Q Crane?

18 A Definitely Crane.

19 Q Kennedy?

20 A The -- I believe I've seen Kennedy, yes, sir.

21 Q Velan?

22 A Yes, sir.

23 Q Edward?

24 A I can't be sure, but that don't ring a bell, that
25 one.

- 1 Q How about Flowserve?
- 2 A What now.
- 3 Q Flowserve?
- 4 A I'm trying to remember. A lot of them had the
- 5 name stamped on the valve.
- 6 Q How about Chapman, sir?
- 7 A What now?
- 8 Q Chapman. Do you remember Chapman valves?
- 9 A I'm not going to say a hundred percent sure. I
- 10 probably do, but I can't say.
- 11 Q You know other people worked in the vicinity that
- 12 you were doing your job?
- 13 A A lot of people, yes.
- 14 Q And it was a busy job you had?
- 15 A Yes.
- 16 Q Kept you on your toes?
- 17 A Yes, sir.
- 18 Q And your focus was on the work you were doing,
- 19 correct?
- 20 A Yes.
- 21 Q And, primarily, when you got to see a valve job,
- 22 it was at that end stage where they're torquing, where
- 23 you're making sure the torquing is done correctly?
- 24 A Yes, sir.
- 25 Q And you don't have specific instances that you

1 recall with dust being made when it was a Grinnell
2 valve or a Chapman valve or a Fisher valve or a Kennedy
3 valve; is that correct?

4 MS. FARRISE: I'm going to object that that
5 question is compound, Your Honor.

6 THE COURT: Well, it is a compound question, but
7 let's see if he can answer it. If not, you can go
8 through the names.

9 And what he's asking is whether you remember
10 specific names and associate them with dust events.

11 Am I right about that, Mr. Reid?

12 MR. REID: Yes, Your Honor. And since he may have
13 forgotten the question by now, I'm wondering if the
14 reporter could read it back.

15 THE COURT: The court reporter can read it back
16 for you, of course.

17 (Record read.)

18 THE WITNESS: I'm saying if we were in that
19 vicinity, it don't matter what kind of valve it was; we
20 were getting dust from that location if they were
21 working on it.

22 BY MR. REID:

23 Q But you don't recall any particular instances of
24 this period that was 33 to 37 years ago, fair?

25 A What now?

1 Q Do you recall any particular instances where you
2 were around a Fisher valve or a Crosby valve or those
3 other types of valves?

4 A No, I could not say a specific day or something
5 like that. I can't remember back that far.

6 Q I'm not looking for a day of the week or a day of
7 the month, but any specific recollection that you can
8 picture where dust was being created.

9 A Definitely, yes. But I'll tell you, when the
10 utility, they cleaned up, and they would blow -- with
11 air guns, you know, they would blow dust up. And all
12 those manufacturers made that dust. A lot of them -- a
13 lot of people won't believe this. A lot of them back
14 then, they would take a gasket and rip them off and
15 throw them in the floor, whether it be packing gaskets.
16 And here the utility would come up and sweep up those
17 things, you know, all the time, and with an air gun,
18 you're blowing them. And that's the way it was, you
19 know.

20 Q That included pieces of insulation?

21 A Yes, sir.

22 Q And we talked earlier about those miles and miles
23 of pipe. All that piping was covered by insulation,
24 correct?

25 A Yes.

1 MR. REID: Tyler, can you demonstrate the OSHA
2 slide, please.

3 Q Mr. Jolly, are you able to see the screen? It
4 says, "When an employer has employees who are exposed
5 to asbestos dust, the employer shall comply with the
6 requirements." And this is OSHA 1972.

7 A Yes. '76.

8 Q Well, we have got the date 1972 here. Do you know
9 if Duke required you to wear respiratory devices during
10 the work you've described?

11 A No, sir.

12 Q "Warning signs shall be provided and displayed at
13 each location where asbestos dust hazards are present."
14 Did Duke have such signs?

15 A Well -- well, they warned us. I'll put it like
16 this. I couldn't tell you if a piece of dust on the
17 floor came from insulation. I could not tell you. I
18 could not tell you -- I couldn't identify it. And I
19 wasn't looking for it. So I wasn't looking for it.

20 I mean, we knew, I think, asbestos was bad for
21 you, but I didn't know how bad it was for me at the
22 time. And a lot of other people didn't. But I didn't
23 specifically go around looking down at the floor. You
24 could get killed. You had to watch where you was
25 going. And I couldn't tell you -- and we were

1 specifically -- in fact, a guy on another crew almost
2 got fired because he took off a piece of insulation
3 himself; he removed it. We could not remove it. That
4 wasn't our job. We didn't remove insulation. We
5 didn't touch it if we didn't have to. We didn't have
6 to and we didn't touch it. So I knew those
7 restrictions were there, you know. We didn't -- we
8 tried to avoid the insulation, you know.

9 Q You didn't know where any of the dust on the floor
10 came from, correct?

11 A Sir?

12 Q There was dust on the floor, you said?

13 A Yes.

14 Q You don't know where any of that dust came from,
15 do you?

16 A Well, it came from grinding, you know, the
17 grinding wheels, traffic, trafficking. You would be
18 surprised during the construction job what can get on
19 the floor. It's unbelievable. People just throw stuff
20 down and let the utility crew clean it up, you know.

21 Q This says, "Dust samples shall be collected from
22 within the normal breathing zone of employees in their
23 normal working posture." Did Duke ever collect dust
24 samples in your breathing zone in this 1980 to '84
25 period?

1 A I'm sure safety did.

2 MS. FARRISE: Objection --

3 THE WITNESS: You know, I'm sure the safety
4 department did because they told us, listen, they told
5 us the areas that we had to wear respirators, you know.
6 This is a respirator zone. And we would have to check
7 out respirators and go through a respirator class, and
8 they told us those areas, so that's the way it was.

9 BY MR. REID:

10 Q Were you ever told that a sample had been taken
11 near you that was reported back as exceeding the limits
12 that were applicable at the time?

13 A Near me?

14 Q Yeah. Did Duke ever say, "Mr. Jolly, we got a
15 breathing sample back from you and it exceeds what you
16 should be exposed to"?

17 A No. They had zones. There would be a certain
18 zone that you couldn't go in without a respirator.

19 Q Well, you're talking about inside the containment
20 vessel, correct?

21 A Or any other place. It could be in the auxiliary
22 building. It could be a zone that you had to wear a
23 respirator, you know, because of different chemicals in
24 the air, contaminants, you know. They had a specific
25 respirator filter for each contaminant they detected in

1 that area.

2 Q But Duke never reported back to you that there was
3 a breathing sample detected in any respirator or
4 monitor at a zone where you had been that exposed you
5 to limits of asbestos exceeding applicable regulations?

6 A No. They didn't come back and tell me after I was
7 there, but they would tell me before I went, you know.
8 You know, I mean, they tried to do the best they could.

9 Q Right.

10 A You know --

11 Q I'm not talking about actually wearing the
12 respirator.

13 A Yes.

14 Q I understand that they had you do that on
15 occasion. But you never heard back from Duke that
16 there was -- that you were exposed to asbestos in
17 excess of the limits they had set for their plant,
18 correct?

19 A No.

20 Q All right. Thank you.

21 A I think I understood that right.

22 Q Mr. Jolly, this says, "All hand operated and power
23 operated tools which may produce or release asbestos
24 fibers in excess of the exposure limits prescribed in
25 Paragraph B of this section such as," and it goes on,

1 "saws, scorers, wheels, drills shall be provided with
2 local exhaust ventilation systems in accordance with
3 Subdivision 2."

4 Here's my question. You've described seeing
5 gasket removal. Was the dust from the tools you saw
6 being thrown into the air or was it being collected by
7 some sort of system connected to the tool?

8 A Well, I'm going to tell you something. We had
9 good ventilation systems, we did, but that's something
10 I can't tell you because they had these HEPA filters,
11 all the times that they would come by and rack them up
12 with whatever they thought was a contaminant, you know.
13 Those HEPA filters, which was real fine filters, you
14 know, but that's all I could tell you about that, you
15 know. I couldn't tell you that. I'm not going to tell
16 you something that I don't know I know about, you know.

17 MR. REID: Judge, I have Exhibit 134. I'll hand a
18 copy to counsel and one for the court as well.

19 Q Mr. Jolly, if you look at the first page of this
20 document which is marked Crosby Exhibit 134, this is a
21 letter of June 14, 1977, correct?

22 A Wait a minute now. Yes, I see it.

23 Q And it's on Duke Power letterhead?

24 A Yes. Yeah. That was two years before I come to
25 work for Duke Power Company there.

1 Q Right. And if we look at the second page --

2 A Yes.

3 Q -- this is Duke's safe working practices when
4 working with asbestos?

5 A Wait a minute now. I'm getting there. Yes.

6 Q And it's dated June 1, 1977, right?

7 A Yes, sir.

8 Q And it talks about exposure limits?

9 A Let's see now. On the third page?

10 Q Yes, sir.

11 A Let me see here. Just a second. Third page.

12 Yeah, I see it. I see that, yes.

13 Q And if you look at Section 2, there's a section
14 that says, "2.1, time-weighted average," and it gives a
15 level of asbestos exposure that you're not supposed to
16 exceed, right?

17 A Yes.

18 Q And then the second paragraph has the same thing
19 for something called ceiling concentration, correct?

20 A Yes.

21 Q Now, if you would look -- I'm not going to be able
22 to demonstrate this because it covers two pages, but if
23 you look at the bottom of this page, you see the number
24 2?

25 A Right here, yeah. Here?

1 Q Right. Says, "Where block or molded pipe
2 insulation has an outer cover of canvas, the canvas
3 shall be removed carefully and the insulation wet down
4 sufficiently before removal to prevent asbestos fibers
5 from becoming airborne," correct?

6 A Yep. That's what it says.

7 Q Did you ever see Duke people wet down insulation
8 in that '80 to '84 period?

9 A Well, I'm going to tell you something. Each one
10 of those areas that had the asbestos is probably
11 asbestos abatement, is what I'm thinking. Is that what
12 you think? When they take the insulation off, right?
13 All right. They would tent in those areas, and you
14 couldn't see inside them because they wore respirators
15 inside those areas. They were taking off that
16 particular insulation. You couldn't see inside because
17 they tented it off. And they had the electrical crew
18 put a light in where they could see. And they wore
19 respirators while they were in there. We couldn't go
20 in there. I couldn't see what they was doing.

21 Q Let's go to the next page. Do you see Section 6?

22 A Yes. Wait a minute now. A lot of times they
23 would use orange plastic, and we'd know to stay away
24 from those areas.

25 All right. Section 6, yes, sir.

1 Q Says, "Caution labels shall be placed on all raw
2 materials, mixtures, scrape, waste, debris and other
3 products containing asbestos," correct?

4 A Yes.

5 Q And then the next section has the actual language
6 of the warning, "The following wording shall be printed
7 on the caution labels, 'Caution contains asbestos
8 fibers. Avoid creating dust. Breathing dust may cause
9 serious bodily harm'?"

10 A Yes.

11 Q So it's fair to say in terms of warnings, that was
12 Duke taking on responsibility to provide warnings for
13 anything on its premises, correct?

14 A Yes. There were warning signs. They had them
15 everywhere. You would see them everywhere. I mean,
16 everywhere you go. You wouldn't believe the size of
17 these buildings. Some of them are football field long
18 and wide, you know.

19 Q So did you --

20 A Yes.

21 Q Duke was a user of all these asbestos products
22 from insulation to asbestos-containing gaskets or
23 packing, correct?

24 A Say that one more time, if you would..

25 Q Duke used all these products, correct?

1 A Yes.

2 Q Insulation, gaskets, packing?

3 A Yes. At one time or the other, yes.

4 Q And they were a sophisticated entity?

5 MS. FARRISE: I'm going to object that it lacks
6 foundation, calls for speculation. It's vague and
7 ambiguous.

8 THE COURT: Overruled.

9 THE WITNESS: You said sophisticated what now?

10 BY MR. REID:

11 Q Duke was knowledgeable about the hazards of
12 asbestos, correct?

13 A I would say so.

14 Q They had a warning, after all?

15 A Yes, they did.

16 Q They were a very sophisticated company?

17 A I would say so. Yes, I think so.

18 Q Now, when you saw these warning labels and you saw
19 work being done on gaskets, did you get a respirator?

20 A Well, if they had a sign up, I did. If they
21 didn't, I didn't, you know. We didn't have to because
22 it wasn't -- you know, we were told when to use the
23 respirators. You couldn't just go pick up one on your
24 own.

25 Q Mr. Jolly, this is Exhibit 135, correct?

1 A Sir? What's 135?

2 Q It's Exhibit 135?

3 A I'm sorry. I didn't see that.

4 Q No problem, sir.

5 A I see it now.

6 Q This is May 28, 1982, correct?

7 A Yes.

8 Q And that's still while you're in the

9 four-and-a-half-year period where you're doing

10 inspection work?

11 A Yes, yes.

12 Q And Duke has updated or revised its safe working

13 practice for asbestos exposure policy?

14 A Yes, sir. Yes, sir.

15 Now, can I ask you a question? That says "all

16 steam stations." It should say "nuclear stations." It

17 should say "nuclear stations."

18 Q Well, let's talk about that because in this same

19 '80 to '84 period --

20 A Yes.

21 Q -- you went to other plants other than these

22 stations, correct?

23 A Not many, but we did some, yes.

24 Q Well, you've testified to doing work at Allen

25 Station?

- 1 A Yeah. We did some, yes. .
- 2 Q That was built in 1957?
- 3 A Yes.
- 4 Q And Buck Station?
- 5 A Yes.
- 6 Q That was built in 1926?
- 7 A Yes.
- 8 Q And Cliffside Station which was built in 1940?
- 9 A Went to Cliffside some.
- 10 Q You went to Dan River which was built in 1949?
- 11 A Dan River? Yes.
- 12 Q And Lee Station which was built in the '50s?
- 13 A Yes.
- 14 Q And Marshal Station which was built in '65?
- 15 A Yes, sir. Been to all of them.
- 16 Q And Riverbend which was built back in 1929?
- 17 A Yes.
- 18 Q And Belews Creek which was built in 1974?
- 19 A It's Belews Creek.
- 20 Q I'm from Wisconsin, sorry. I can spell
- 21 Oconomowoc, though.
- 22 But those are all -- those were stations that had
- 23 asbestos insulation, correct?
- 24 A I'm sure they did, yes.
- 25 Q And you worked in all of those?

1 A Very short periods of time. We wouldn't be there
2 for over a week because they didn't want us. They
3 wanted us to work in the nuclear plants.

4 Q Would you be there a week annually?

5 A A couple days. A lot of times I would go to Allen
6 for -- we might go for one day and then -- they
7 wouldn't let us stay long in those plants, not very
8 long. Just a day or two. In any of them. We went to
9 all of them, but we would go there. Maybe we might go
10 into a heat exchanger or something like that to do MT
11 or PT or something like that. We weren't there long,
12 you know. A little ultrasonics on it, but we weren't
13 there long because they had their own people. They
14 governed themselves under a different rule than nuclear
15 people, you know.

16 Q In any event, you were never handed a procedure on
17 how to deal with asbestos in that '80 to '84 period,
18 correct?

19 A We were told not to take off any insulation, you
20 know, or be around it when they were taking it out or
21 installing it. We knew that now, you know. I knew not
22 to do that. We all knew that.

23 Q Would it be fair to say that Duke did not bear
24 down on its asbestos policies even when you were doing
25 that classroom training in the '84 to '94 period?

1 A Well, what do you mean by bear down?

2 MR. REID: Exhibit 21, Page 88, please.

3 THE WITNESS: I mean, you know, is that a hard
4 rule or soft rule or what kind of -- I mean, we knew as
5 inspectors to not do certain things, you know.

6 BY MR. REID:

7 Q Hold on. I'll show you some testimony.

8 Sir, if you can read along. I'm at Line 10. This
9 is your testimony from last August.

10 The question was, "And let me ask you about this
11 time period when you were -- when you went into
12 training from '85 to '94."

13 Your answer was, "Right."

14 "Question, during this time period, did Duke begin
15 to warn about the dangers of asbestos?"

16 Your answer, "I'll tell you the truth. They
17 didn't really bear down on us, I don't think, you know,
18 about any dangers."

19 "Okay."

20 Answer, "You know, I didn't -- nothing stuck with
21 me."

22 A Yeah.

23 Q So you're the gentleman who used the word "bear
24 down," correct?

25 A Okay. Yeah.

1 Q Thank you very much.

2 A Okay. I was the one.

3 Q Still looking at the 1982 policy, I'll find the
4 page for you so you don't have to --

5 A Okay.

6 Q By the way, if you're in need of a break, just let
7 me know.

8 A Just go ahead if you want to.

9 Q Section 2.1?

10 A I see it.

11 Q Duke says there's no intent to remove from service
12 or replace any asbestos products now being used and in
13 a good state of repair, correct?

14 A Wait a minute. Let me think about this a second.
15 Can I?

16 MS. FARRISE: Which exhibit is this, Counsel? I'm
17 sorry. I just lost track.

18 MR. REID: Crosby 135.

19 THE COURT: What number, Mr. Reid?

20 MR. REID: 135, Your Honor.

21 THE COURT: I got 135. What paragraph number are
22 you dealing with?

23 MR. REID: Your Honor, if you look at the page
24 Bates-stamped Duke 0417, Section 2.

25 THE COURT: Oh, all right.

1 THE WITNESS: Section 2.

2 THE COURT: All right. The attachment. And then
3 you're looking at 2.1.

4 MR. REID: 2.1 and 2.2.

5 THE COURT: I have it.

6 BY MR. REID:

7 Q And Section 2.2 says, "Asbestos products currently
8 in stock can and should be used"?

9 A "And in a good state of repair?" What does that
10 mean? I mean, what is that saying, "and in a good
11 state of repair"?

12 Q So Duke didn't communicate anything to you about
13 that? Did they hand you anything that defined what
14 should be left alone or continue to be used versus
15 taken out?

16 A No. I just don't remember. I mean, that
17 question, the question -- does that mean if it's in a
18 good state, asbestos is in a good state of condition,
19 that they're not going to remove it? Is that it?

20 Q Do you know?

21 A I don't know.

22 Q All right.

23 A I don't know this question.

24 Q Well, let's move on.

25 Your Honor, Exhibit 136.

1 A I don't remember.

2 Q Mr. Jolly, if you look at Exhibit 136. Do you
3 have that?

4 A Yes, I do.

5 Q And this is a Duke Power construction department
6 handout on asbestos --

7 A Yes.

8 Q -- and how to protect yourself?

9 A Yes.

10 Q And the date is September 1984?

11 A All right. Yes.

12 Q And if you look -- I can find it for you, sir.

13 A Right here?

14 Q I'll show you.

15 A Okay.

16 Q Thank you.

17 Duke's construction department wrote that, "There
18 are thousands of uses for asbestos because it resists
19 heat and corrosive chemicals. It can be found in some
20 form in almost every home and workplace," correct?

21 A Yes.

22 Q And if you turn two pages beyond that, sir?

23 A Two pages, okay.

24 THE COURT: This is Duke Page 0062, and then you
25 are now going to Duke Page 0064?

1 MR. REID: Yes, Your Honor.

2 THE COURT: On Crosby Exhibit 136?

3 MR. REID: Correct.

4 THE COURT: Very good.

5 BY MR. REID:

6 Q Did Duke training materials say, "Actually,
7 asbestos is used very little in Duke construction
8 today, 1984, mostly to insulate electrical cabinets and
9 pack valves, and it is used in gasket material. Even
10 so, the asbestos in these jobs is bonded which means it
11 produces virtually no dust." Did I read that
12 correctly?

13 A Yes.

14 Q And next paragraph down says, "In the past,
15 however, nonbonded asbestos has been used for
16 insulation throughout the Duke system. So there's a
17 good chance that asbestos dust is present wherever old
18 insulation is being removed," correct?

19 A Yes.

20 Q And you have to remove insulation on those
21 pipe-to-pipe connections you inspected as part of your
22 job in the '80-'84 period, correct?

23 A We didn't do it. The insulators did.

24 Q But that was among the materials thrown on the
25 floor, correct?

1 A Sometimes.

2 Q And to then look at that pipe-to-pipe connection,
3 even doing your job, the insulation would have been
4 disturbed, wouldn't it?

5 A Yes. A lot of times they would bag them up. They
6 would bag up that insulation in a bag, like a green
7 bag, and tie it up, you know. I guess where the -- I
8 don't know, where the contaminants couldn't get out of
9 it, you know.

10 Q I'll try to wrap it up here. I just have one more
11 exhibit to show you, which is 137.

12 A Yes, sir.

13 Q Thank you so much for your time, by the way.
14 Appreciate it.

15 If we look at the first page, Exhibit 137 is
16 entitled, "Safe Working Practices for Asbestos
17 Exposure," correct?

18 A Yes.

19 Q And this is the revision in effect January 1,
20 1985?

21 A Yes.

22 Q And, sir, if you look at the next page, if we look
23 at Paragraph 2(a), that says, "No material containing
24 asbestos which could cause asbestos fibers to become
25 airborne should be removed from shipping containers"?

1 A Okay.

2 Q Was Duke still receiving asbestos-containing
3 material in 1985?

4 A You know, I don't know for sure. I couldn't tell
5 you that.

6 MS. FARRISE: Counsel, what page is that? I'm
7 sorry, I don't have a page.

8 THE COURT: It's on 0436.

9 THE WITNESS: Could I ask you one question? It
10 says, "No material containing asbestos." Okay. I see
11 what you're doing. Yes. I read that.

12 BY MR. REID:

13 Q All right. Duke still has, if you look at
14 Paragraph B, 1(b) right above that, Duke still has a
15 policy in effect. And this is after you have left,
16 that 1980 to '84 period. They still have a policy for
17 wetting down and other procedures for asbestos removal,
18 correct?

19 A Yes, and covering it up. Yes, they usually
20 enclose it.

21 Q Sir, if you could look at the next page. I'm
22 looking at Section 5. They have a section about
23 policies in place for spraying asbestos insulation?

24 A Okay. I see it down there.

25 Q All right. Mr. Jolly, I'll try to be real short

1 and wrap it up in a few questions.

2 A Okay.

3 Q Sir?

4 A Yes, sir.

5 Q I'll change the topic here.

6 A Okay.

7 Q Yesterday we heard some assertions about who
8 directed activities at Duke.

9 A Yes, sir.

10 Q And again in questions directed to you by your
11 attorney this morning --

12 A Yes, sir.

13 Q -- Duke directed all parts of your work, correct?

14 A Yes, sir. Yes, sir, yeah.

15 Q Exhibit 124, page 118. I misspoke. Exhibit 24.
16 My apologies.

17 Mr. Jolly?

18 A Yes, sir.

19 Q I'm just going to direct your attention to the
20 testimony you gave.

21 A Yeah.

22 Q At Page 6, the question was, "All right. When you
23 arrived at Duke Power in 1979, Duke Power trained you
24 in how to do your work; is that right"?

25 A Yes, sir.

1 Q Answer, "They sure did."

2 Question, "And you also received procedures from
3 Duke Power that told you how to do your job; is that
4 correct?"

5 Answer, "Yes, we did."

6 Question, "And you did your job according to the
7 way that Duke Power wanted it done; is that right?"

8 You said, "Exactly," correct?

9 A Yes, yes.

10 Q And Duke Power was in charge of your work; is that
11 a fair statement?

12 A Yes, sir.

13 Q In short, nobody from Crosby ever told you to do
14 anything, correct?

15 A No.

16 Q No one from Fisher ever directed your work in any
17 way, shape, or form?

18 A Or any valve company, no. No.

19 MR. REID: Your Honor, I'm done. I just would
20 move Exhibits 134 to 137 in evidence.

21 THE COURT: They're admitted without objection.

22 (WHEREUPON, Defendant's Exhibit Numbers 134, 135,
23 136 and 137 were admitted into evidence.)

24 THE COURT: All right. Cross-examination?

25 MR. REID: Thank you, Your Honor.

1 Thank you, Mr. Jolly.

2 MS. FARRISE: Redirect, Your Honor.

3 THE COURT: Excuse me. Redirect.

4 REDIRECT EXAMINATION

5 BY MS. FARRISE:

6 Q Mr. Jolly, can you hang with us a little longer?

7 A Okay.

8 Q Tell us if you can't. We can take a break.

9 A I'm ready to take a break when y'all are.

10 Q Do you want to take a break now?

11 A No, no, no. Let's finish up.

12 Q Okay. You were just asked a bunch of questions
13 about a bunch of documents, and I'm not going to ask
14 you much, but let's see if we can -- I'm going to ask
15 you, however, some questions that have to do with Duke.

16 Are you sure you're okay?

17 A Yes, ma'am. Yes, ma'am. Go ahead. Let's go.
18 Let's go for it. I want to get this over with.

19 THE COURT: You want to go for it and get it over
20 with? That's fine.

21 THE WITNESS: I know the jury wants me to get
22 through with this.

23 THE COURT: Let's go forward, Ms. Farrise.

24 THE WITNESS: I'm going to do their wish.

25 BY MS. FARRISE:

1 Q Mr. Jolly, your employer was Duke Energy?

2 A Yes.

3 Q And as he just said, not Fisher and not Crosby,
4 right?

5 A Yes. Yes, ma'am.

6 Q The service engineers who came to the site to
7 oversee the work from Crosby and Fisher, was Duke their
8 employer?

9 A I would say they were because they used their
10 valves.

11 Q Remember the servicemen we talked about who would
12 come for the outages?

13 A They were like a contractor, really. They come.
14 Duke probably hired them out to come. They needed
15 them, yes. I see where you're coming from.

16 Q So Crosby service engineers were employees of
17 Crosby?

18 A Yes.

19 Q Fisher's service engineers were employees of
20 Fisher, correct?

21 A Yes. Yes, ma'am.

22 Q And they were not Duke employees at this site?

23 A No.

24 Q So when we're talking about employers of people,
25 there were three employers on outages who were subject

1 to all of those OSHA rules that were just put up,
2 correct?

3 MR. REID: Your Honor -- Your Honor, I object.
4 That's something I disagree with. It also calls for a
5 legal conclusion. It's certainly beyond the capacity
6 of this witness.

7 THE COURT: All right.

8 Ms. Farrise, you're leading him a lot, and you
9 have also got a compound question going.

10 MS. FARRISE: I'll withdraw, Your Honor. Thank
11 you. How about that?

12 Q Mr. Jolly, the primary business of Duke was to
13 produce what?

14 A Electricity for the public.

15 Q Electricity. Fisher and Crosby's primary business
16 was to manufacture valves?

17 A That's right.

18 Q Are you sure you're okay? I'm worried.

19 A I'm fine.

20 Q In terms of the documents and the things you were
21 asked about, taking steps to protect people from
22 asbestos at your worksites, did Duke do that?

23 A Yes.

24 Q Did Crosby, at your worksites, take any steps to
25 protect anybody that you could see from being exposed

1 to the asbestos in the valves that it made?

2 A No.

3 Q Fisher?

4 A No.

5 Q Asbestos warnings on signs. I think you asked --
6 Mr. Reid asked you and you agreed that -- he read some
7 documents -- Duke put up signs that warned about
8 asbestos that it knew about?

9 A Yes.

10 Q Did you ever see any asbestos warnings on
11 replacement gaskets that Crosby sold to Duke or on
12 replacement gaskets that Fisher sold to Duke?

13 A No. They weren't there.

14 Q In terms of the relationship about the things
15 we've been talking about, was Duke the customer or the
16 seller as to valves made by Crosby and Fisher?

17 Let me ask a different question.

18 A I guess it's the customer, really, because, you
19 know, they used their valves.

20 Q Right.

21 A So they had to be the customer.

22 Q Right. And Crosby and Fisher were the sellers?

23 A Yes.

24 Q Of products?

25 A Yes.

1 Q I'll just put "sellers of products." Now,
2 quickly, you were asked about miles and miles of piping
3 at these power plants?

4 A Yes.

5 Q On an outage, was every flange on every pipe
6 broken?

7 A Not on every one of them, no, absolutely not.

8 Q Right. So the piping, if it's going along doing
9 its thing for decades, may not get worked on during an
10 outage for decades?

11 A Exactly.

12 Q Right. But the safety equipment --

13 A Yes.

14 Q -- that might cause the plant to blow up --

15 A Right.

16 Q -- if it's not working correctly --

17 A Yes.

18 Q -- was it inspected every outage?

19 A Yes, ma'am.

20 Q Mr. Reid for Crosby and Fisher asked you about the
21 special valve crews whose job it was to lay their hands
22 on and do the repair on the valves. Do you recall
23 that?

24 A Yes.

25 Q That wasn't your job?

1 A No.

2 Q Your job was to inspect the work of the valve
3 crews?

4 A Exactly. Exactly.

5 Q And because you inspected their work, would you
6 have to work close to them?

7 A Very close to them, yes. Right close to them.
8 Stand beside them a lot of times. We had to be to look
9 and see what they was doing. You know, we was right
10 there with the mirrors and looking up in the flanges
11 and making sure they wasn't getting anything into the
12 valves or anything like that. We were right there.

13 Q But you didn't have your hands on the valves?

14 A No.

15 Q You just had your face in the air --

16 A Exactly. Exactly.

17 Q -- of the work they were doing?

18 A Yes, yes.

19 Q You were asked about your deposition. I'm all the
20 way back to the first question. It was taken last year
21 in August. Do you remember that?

22 A Yes.

23 Q Had you had a significant medical procedure last
24 summer as well?

25 A Last summer?

1 Q Uh-huh.

2 A Yes.

3 Q And what was that?

4 A I'm in this study. Just last summer. Okay, last
5 summer. Dr. Carpoli operated on me like June the 6th.

6 Q Did something happen to you on June 6th insofar as
7 that relates to your medical condition?

8 A Yes. They took out all the lining around my heart
9 and my lungs, and he scraped out what cancer he could
10 get. And he told me he got 99 percent of it out. And
11 last October they did an x-ray, CAT scan, and there
12 wasn't any. But here about four months ago, they did
13 an x-ray and said it had grown back about like a silver
14 dollar. He said, "We can't operate on you no more."
15 He said, "All we can do is shrink it."

16 I'm in a special treatment now that makes my body
17 fight cancer. I have to take three of them. And I'm
18 in -- I'll take my last one next Monday, which I dread
19 because after five days, it brings you to your knees,
20 you know. It makes your body -- it uses your body
21 nutrients to fight the cancer.

22 Q So there's nothing left for you, right?

23 A (Crying). Yeah.

24 MS. FARRISE: Your Honor, those are all the
25 questions I have on redirect.

1 Mr. Jolly, thank you so much.

2 THE COURT: All right. Any recross-examination?

3 MR. REID: No, Your Honor.

4 THE COURT: Very good.

5 Ms. Farrise, Mr. Jolly is excused.

6 MS. FARRISE: Your Honor, given that the hour is
7 12:45, might we agree to take a lunch break at this
8 time and then we can get Mr. Jolly --

9 THE COURT: Very much so. I was simply going to
10 allow Mr. Jolly to depart the stand and then we'll
11 dismiss the jury.

12 MS. FARRISE: Can we do it in the reverse order?

13 THE COURT: Yes. Just relax for a moment.

14 THE WITNESS: I'll be glad to. Thank you.

15 THE COURT: Ladies and gentlemen of the jury,
16 we'll take our lunch break now. It's quarter of 1:00.
17 Let's be back here at 2:10. Thank you.

18 (WHEREUPON, the jury exited open court at
19 12:44 p.m.)

20 THE COURT: Ms. McVey, while I've got my mind on
21 it, I simply wanted to put on the record what we
22 discussed at sidebar. I don't think it will take but a
23 half a second.

24 The issue was raised by counsel for the defense,
25 Mr. Bouch and Mr. Reid, as to how to examine in

1 accordance with their right to discuss other exposures
2 involving other companies, and the request was made
3 that they do that by reading the complaint.

4 Because of the previous hearings that we have had
5 that involved how you deal with settling or dismissed
6 defendants, I have prohibited the reading of the
7 complaint. But we also have *Smith vs. Tiffany* and
8 other cases that allow the defendants' complete ability
9 to point to the empty chair, as it's called, and
10 discuss others, other possible tortfeasors that might
11 contribute to the injuries that Mr. Jolly alleges he
12 suffered.

13 And so we made -- I made the determination that
14 they could ask about companies that were mentioned in
15 the complaint or any other company that has -- that
16 they can show Mr. Jolly might have had some exposure to
17 asbestos from. And they did that.

18 That was over the objection of Mr. Bouch and
19 Mr. Reid, who would have preferred to do it by reading
20 the complaint. I stayed with my previous ruling and
21 did not allow the reading of the complaint, but I did
22 authorize them and continued to authorize them to have
23 complete ability to point to the empty chair, as it's
24 called.

25 And in *Smith vs. Tiffany* and other cases, the

1 empty chair defense is discussed in more detail by
2 saying that the empty chair is not just anyone you pick
3 out of the air. It has to be a company that the
4 information or evidence discloses is a potential source
5 of exposure, and the complaint and the averments of the
6 complaint are one document that points to a possible
7 and potential source of exposure as averred in the
8 complaint. So that was the ruling.

9 Have I covered it, Counsel, for both parties?

10 MR. BOUCH: Your Honor, if I may just put a point
11 on what you said. We had previously moved and used the
12 complaint in accordance with Rule 43(g). We understand
13 your ruling on that.

14 This was a little bit different in the sense that
15 we were concerned about our ability to cross Mr. Jolly
16 based upon his answer to Interrogatory Number 4 where
17 we asked for other manufacturers and the answer began,
18 "See complaint." And we understand your ruling. We
19 did it. We made that request. And to the extent we
20 weren't allowed to go as far as we had previously
21 wanted, I guess we're protected on the record.

22 THE COURT: You are very much so.

23 MR. BOUCH: I will file a copy of the answer to
24 interrogatories and the complaint just for information
25 exhibits with the clerk so we're straight on that.

1 THE COURT: Right. So that you preserve your
2 position that you were not only allowed by the
3 existence of the empty chair defense and the averments
4 in the complaint to go into these, but in addition to
5 that, because of the way that Mr. Jolly answered the
6 previous discovery, you felt that having said "see the
7 complaint" opened the door to your being able to put
8 the complaint in. And I, consistent with my previous
9 rulings, overruled that request by you or denied that
10 request. And you are totally protected on the record,
11 and Mr. Reid has examined reserving all of both
12 defendants' rights under the previous rulings.

13 MR. BOUCH: Thank you, Your Honor.

14 MS. McVEY: And, Your Honor, just for the record,
15 Mr. Reid did, in fact, question Mr. Jolly by name of
16 manufacturer, many, many manufacturers, which he
17 cross-examined Mr. Jolly on. He just wasn't able to
18 use the complaint, but he certainly used the names that
19 were contained within that document.

20 THE COURT: So noted. Very good.

21 2:10, if that's okay. Do you think we need a
22 longer period of time than that? Can you handle it
23 during that period?

24 MR. BOUCH: How about the week after Labor Day?

25 MR. McVEY: We have Tracy Jolly and Brenda Jolly

1 after lunch.

2 THE COURT: Very good. See you after lunch.

3 (WHEREUPON, lunch recess was taken from 12:50 p.m.
4 to 2:06 p.m.)

5 MR. McLEOD: The interrogatories in the complaint
6 that we were going to make exhibits, not in this case
7 but for the appellate record, these are actually
8 exhibits that we had premarked, but we didn't print
9 those copies. If it's okay with the court --

10 THE COURT: Put them in without objection.

11 MS. McVEY: Not into evidence.

12 MR. BOUCH: It's the complaint, Your Honor.

13 THE COURT: Oh, the complaint.

14 MR. McLEOD: I just want to mark them with the
15 Crosby exhibit that we had --

16 THE COURT: Right. Right. Right.

17 MR. McLEOD: -- but not for this case pursuant to
18 your ruling. And we'll take care of that as we
19 discussed.

20 MR. REID: If you did not mark up your copy of
21 Exhibit 137, could I impose to use that one?

22 THE COURT: I wrote all over it.

23 MR. REID: We'll make a copy over the next break.

24 THE COURT: I'm sorry. Do you need it for right
25 now?

1 MR. REID: No. I just wanted to make sure your
2 staff had a full complement of what we submitted.

3 THE COURT: Bring in the jury.

4 (WHEREUPON, the jury came into open court at
5 approximately 2:09 p.m.)

6 THE COURT: Very well. We have the jury present,
7 and we're ready to begin this afternoon.

8 Ms. McVey.

9 MS. McVEY: Good morning -- good afternoon now.
10 The plaintiffs would call Tracy Pavlish to the stand.

11 TRACY PAVLISH,

12 BEING FIRST DULY SWORN, TESTIFIED AS FOLLOWS:

13 DIRECT EXAMINATION

14 BY MS. McVEY:

15 Q Tracy, how are you?

16 A A little nervous, to be honest.

17 Q A little nervous? Never testified in front of a
18 jury before?

19 A No.

20 Q Can you tell the jury who you are?

21 A I'm sorry. I'm Dale's daughter.

22 Q And are you the oldest child?

23 A I am.

24 Q Is that your adorable face right there on the
25 beach?

1 A Yes.

2 Q With your mom and dad?

3 A Yes.

4 Q And, Tracy, where do you live?

5 A I'm in Charlotte, North Carolina. It's about an

6 hour from my parents.

7 Q And so where did you grow up?

8 A I grew up in Gaffney, South Carolina.

9 Q And do your parents still live in the house that

10 you grew up in?

11 A They do.

12 Q And you're the oldest child?

13 A I am. I have two siblings.

14 Q Who are your siblings?

15 A There is Brad. He's five years younger than I am,

16 and then there's Allison, and she is nine years younger

17 than I am.

18 Q So there's the family. The Olan Mills. We all

19 had those, I think.

20 A Church picture, I think that was.

21 Q Tell us about growing up in the Jolly household.

22 A We were happy. I mean, we were -- just very

23 happy. Our social life was really family. My

24 grandparents on my dad's side, my grandparents on my

25 mom's side. Always dinners with family and cousins.

1 Just a happy, happy, happy life. Nothing fancy, but.

2 Q Your dad testified earlier that he was a teacher
3 before he went to Duke?

4 A He was, yeah.

5 Q Did Dale value education?

6 A He did. I remember during the summer sometimes
7 when he was off, I would have to listen to phonics
8 records.

9 Q And did he push you to go to school and to
10 graduate?

11 A He did. He taught me to read before kindergarten,
12 and he always wanted us to work hard and most certainly
13 valued education.

14 Q And did you graduate from college?

15 A I did. I went to Clemson.

16 Q The National Champions?

17 A Yes, yes.

18 Q Talk a little bit about your dad growing up, what
19 he loved to do.

20 A Well, my dad loved to garden. He probably at one
21 point had about three acres of garden. Vegetables,
22 fruit. You could go and make a meal from his garden.
23 He loved to cut grass on Saturday. That was his thing
24 on Saturdays. But he just loved to be involved with
25 whatever we were doing.

1 Q Were you always together, this Jolly family?

2 A Yes. Most certainly we have traditions of
3 Christmas Eve, family vacation, Sunday dinners or
4 suppers.

5 Q And some of those Sunday suppers came out of your
6 dad's garden?

7 A Oh, absolutely. Absolutely.

8 Q Did your parents like to travel?

9 A They did, but maybe just a short distance. I
10 mean, the beach was a vacation spot for them. Garden
11 City, Litchfield. They enjoyed that. They loved to
12 come and see me. They didn't travel the world
13 necessarily. I mean, they come to Spartanburg. They
14 go to Greenville. They go to Shelby. I mean, they
15 like to go out to lunch, shopping around, but not
16 much -- not much more than that.

17 Q So you were an hour away?

18 A Yeah.

19 Q And tell me where Brad grew up.

20 A My brother, my dad has some land in Gaffney, and
21 when my brother and his wife wanted to build a home, my
22 dad wanted them to be close, so he let them build on
23 his land. So they are two acres away maybe.

24 Q Walking distance?

25 A Walking distance.

1 Q And what about your sister, Allison?

2 A My sister, Allison, has two little boys. And
3 maybe about ten years ago she and her husband
4 separated, and she was looking for a place to live.
5 And my dad said, "You know, Allison, why don't you just
6 come home?" She has some medical issues. She has
7 migraines and she needed a little extra help with her
8 boys and --

9 Q So Allison came to live with Dale and Brenda?

10 A (Nodding.)

11 Q And did they -- did your parents take over an
12 active role with Allison's boys?

13 A Oh, absolutely. Yeah. They wanted to. I mean,
14 that was...

15 Q So your dad told me a story about teaching the
16 grandkids their first words. Can you tell the jury
17 what that was?

18 A He has seven grandchildren. And I think it was
19 his goal for their first words to be "Papa." Two out
20 of the five.

21 Q Only two out of the five?

22 A Two out of the five. He tried very hard, but two
23 out of the five, that was their first word. And he
24 would sit all the grandchildren down, I remember with
25 my children, and he did it with all the children, he

1 would say, "Papa loves you." And he would -- I don't
2 know if that was -- he would -- he wanted their little
3 hands to hear that vibration. And then he would put
4 his hand on their heart. I mean, it was just really
5 sweet. But two out of the seven, their first words
6 were "Papa."

7 Q Does your dad like to spend time with the
8 grandkids?

9 A He loves it. I mean, he -- yeah, that's his life.

10 Q And who is that?

11 A That's my oldest. That's the oldest grandchild.
12 That's Jack. He's now 17. So in the world of
13 technology, he and my dad text a lot. And, for
14 different reasons, sometimes we take Jack's phone, and
15 he'll say, "Will you please text Papa and tell him why
16 I can't text him back."

17 Q He wants Dale to know?

18 A Yeah. He wants my dad to know why he's maybe not
19 responding to him. They text a lot, yeah.

20 Q So as these grandbabies were growing up, did your
21 dad have a way of telling them good-bye?

22 A Oh, yeah, well. So when my dad was -- well, when
23 we would leave, when any of the grandchildren would
24 leave, he would make a point to go outside and wave us
25 down. That's what they would call it. "Papa, would

1 you please wave us down?" So he would go outside and
2 he would just run along the yard. And my children,
3 once he was out of sight, they would just cry. "We
4 miss him. We miss Papa." And I remember calling my
5 mom and I would say, "Does he really have to do that?
6 It makes it so hard." And he never stopped. And now
7 he can't exactly run or he gets a little winded, but
8 he'll sit on the side and wave. And even my teenagers
9 love that, so.

10 Q Still to this day?

11 A Yeah.

12 Q Let's talk about how life changed for Dale and for
13 your mom in December of 2015.

14 A Wow. Their life came to a halt, I would say.

15 Q What happened in 2015 at the end of the month?

16 A He was diagnosed with lung cancer or mesothelioma
17 and given some options, that being chemotherapy and at
18 some point, hopefully, a surgery. But their life came
19 to a halt once that diagnosis was given.

20 Q And how did you observe -- how did Dale take this
21 diagnosis?

22 A He was heartbroken. It -- he's very happy, and
23 he's a very joyous man, and he would not want anyone to
24 feel sorry for him.

25 Q And, Tracy, today you asked me to not have Dale in

1 here while you testified. Why?

2 A We put on a very good face around him, and we
3 tease him, we laugh and we joke with him, but it's
4 really hard to watch him not do the things that he --
5 that brings him joy. It's hard to watch him walk and
6 I -- I didn't want him here because I don't want him to
7 see how sad I am that his life is the way it is now.

8 Q And so the jury had a chance to see Dale today.
9 And don't tell him I'm saying this, but he's aged
10 significantly. In 2015, when he was 71 years old,
11 before he was diagnosed, did he look like he looks
12 today?

13 A No. It was like an older version.

14 Q Of that guy?

15 A Like that.

16 Q Before he was diagnosed, he was still working?

17 A Yes. He's worked hard all of his life, whether
18 that be in his occupation or in his hobbies. And like
19 I said, his hobbies were gardening and cutting his
20 grass on Saturday. And he retired over ten years ago,
21 but his friends would say, "Dale, please come back. We
22 miss you. We miss you." And he ended up going back to
23 work, and I think a lot of that was social. And he
24 liked to fill his time with doing something. He's just
25 very active, and he likes to feel like he's put in a

1 good day and a hard day of work. That's a satisfying
2 thing for him.

3 Q And how did your mom take her husband's diagnosis
4 of mesothelioma?

5 A She's been very scared, and it's been very
6 stressful for her. She's -- I've watched her become a
7 caregiver and less of a wife, and that's hard. That's
8 hard to watch. It depletes a lot of her energy. And,
9 again, it's just a very stressful situation for her,
10 and sometimes at the expense of her own health. She
11 had -- she had a mild heart attack a couple weeks ago,
12 and in hindsight, she had had symptoms, and I think she
13 was -- she was more concerned about my dad so those
14 symptoms sort of got washed to the side until...

15 Q Until they didn't?

16 A Until they couldn't, yeah.

17 Q After Dale was diagnosed, I understand he went
18 through some chemotherapy?

19 A Yes. He went through three rounds of
20 chemotherapy.

21 Q How did he deal with the chemotherapy?

22 A The first round he thought, "Oh, this is nothing,"
23 even though the doctors told him it was a cumulative
24 effect. Second round, not so much. Third, I
25 thought -- I don't think he could have taken more than

1 that. And he even said, "I can't." His feet were
2 swollen. He couldn't walk. He had lost a lot of
3 weight. He became very fragile and depressed. He was
4 depressed.

5 Q And once he completed that chemotherapy, did he
6 have surgery?

7 A Yes. They determined that the chemotherapy really
8 did not actively affect the cancer, so they decided to
9 stop the chemotherapy and try surgery. And so I think
10 it was maybe about six weeks after his last
11 chemotherapy treatment that they began his surgical --
12 the surgical method of trying to remove the cancer.
13 And from what I understand, they can't exactly remove
14 the tumor. They have to remove either the lung or the
15 lining. And the surgeon had -- he told us had my dad
16 been a couple of years younger, he would have taken the
17 lung but he couldn't. He didn't feel that that was the
18 right thing to do. And he ended up taking the chest
19 wall lining.

20 Q Where the cancer was?

21 A Yes.

22 Q And was Dale in pain after this surgery?

23 A Unbelievable. It was -- yeah, he was. He -- he
24 had tubes, one large chest tube coming out the side.
25 That was a drainage tube. I think they had taken a rib

1 or so. I'm not quite sure. But I know that they took
2 one rib. Yeah, he was in a lot of pain.

3 Q And how did he do after the surgery? Did he have
4 some complications?

5 A Yes. So he was at Duke Medical for a while, and
6 he was released. And he was very, very weak and
7 sickly. And he went home, and I think maybe less than
8 48 hours, he fell, which was very dangerous because of
9 the -- or the tube that was coming out of his back.
10 And my mom could not take care of him. We feared for
11 his safety. She called 911. It was determined that he
12 had blood poisoning. So probably less than 48 hours
13 from the time that he was released from Duke after his
14 surgery, he was back in the hospital for blood
15 poisoning.

16 Q And he had some stay in the hospital at
17 Spartanburg here?

18 A Correct.

19 Q And then did he have to go to another facility to
20 recover from the --

21 A Yes. So he went to a rehabilitative facility here
22 in Spartanburg because it was hard for him to walk.
23 And he went through some occupational therapy there,
24 just getting back on his feet, using some muscles, and
25 he left with a walker, so.

1 Q After he got out of the facility, the jury
2 heard -- Mr. Reid put up part of his deposition. Where
3 was that deposition taken?

4 A At my home in Charlotte.

5 Q How was Dale's condition during that deposition,
6 his medical health?

7 A Not well. He was still using a walker. He
8 couldn't go to the bathroom himself. He needed
9 assistance. He was in a lot of pain. He doesn't like
10 to take a lot of pain medication. He was in a lot of
11 pain.

12 Q After he got through the rehab and his deposition,
13 how did he do?

14 A Yeah. He went to respiratory, through respiratory
15 rehab where he was exercising, and they were trying to
16 get him to breathe and figure out his new body, really.
17 And that seemed to work very well. He weaned himself
18 off the walker. He also was using an oxygen tank which
19 he did not want to use, but he was forced to use that.
20 But he was determined to -- he just didn't want to
21 carry that around with him or use a walker, so he's --
22 I think that's what you've seen today.

23 Q And did he get some health news recently about the
24 cancer?

25 A Yes. So I think it's been about seven months

1 after his last scan that he was somewhat clear. And in
2 May they performed another scan, and they said,
3 "Mr. Jolly, you have -- the cancer has grown back," and
4 which devastated him.

5 Q After all he had been through.

6 A Uh-huh.

7 Q And how about your mom, how did she react to the
8 cancer being back?

9 A She wasn't -- again, it's just a very scary thing
10 to watch her. You know, looking through her eyes, her
11 husband is now going to have to go through this again.
12 Very scared. I think more than anything, she's just
13 scared. She's scared for him.

14 Q He, as I understand, is in some experimental
15 treatment at this point?

16 A Yes.

17 Q Tell the jury a little bit about that.

18 A So when his cancer returned, they gave us or they
19 gave him two options, chemotherapy, which I'm not quite
20 sure that he could do that again, but that is an
21 option, and a -- or he could be part of a clinical
22 trial with immunotherapy where they use your own immune
23 system to potentially fight the cancer.

24 And there was a -- you know, to be part of that
25 clinical trial -- he's in Gaffney. But to be part of

1 that trial, he'd have to be at Duke once a week.
2 Sometimes he has two, three appointments a week there,
3 but at least once a week for his treatment. So as a
4 family, we said, we thought that that was the best
5 thing for him to do. And we take turns, and we make it
6 happen for him.

7 Q You take turns going?

8 A (Nodding.)

9 Q When your mom was up at Duke with your dad getting
10 this immunotherapy, you mentioned a minute ago, but
11 tell the jury what happened to your mom at Duke when
12 she was up with him.

13 A She -- she was -- they had gone to an appointment
14 on a Friday. And my dad had an appointment that
15 following Monday. And so they were just going to stay
16 in Durham over the weekend. And early that Saturday
17 morning, my dad said that my mom got out of bed and she
18 fell. And he had to help her up. And she was a little
19 confused, and she said, "Dale, I think I need to go to
20 urgent care." And he said, "I think we need to go to
21 the ER." They did not call 911. They should have
22 called 911. I think that they -- I'm not quite sure
23 what they were thinking.

24 But they got in the car. She was driving and
25 ended up backing into someone in the parking lot. And,

1 luckily, that person just said, "Please go wherever
2 you're going. Please go." My dad ended up driving
3 her. They finally got to the ER. But it was
4 determined that she had had a mild heart attack, and
5 she was in Duke's hospital for, I think, four or five
6 nights. But they ended up putting two stents. They
7 gave her the option of open heart surgery or two
8 stents, so she chose the stents.

9 Q I think you said earlier she had been dealing with
10 Dale so didn't take the time to deal with herself?

11 A Yeah. In hindsight, she said, "You know, I think
12 these symptoms have been coming on." She did not have
13 chest pain, but she had this heaviness in her arm, and
14 she had back pain. And she just thought it was just
15 from taking care of my dad, taking care of him and
16 doing more than she normally does.

17 Q Tracy, how are you dealing with your dad's
18 diagnosis?

19 A Well, I mean, it's tough. It's tough to watch
20 your dad go through something like this, and it's --
21 like I said, he doesn't want pity at all. And we
22 sometimes have to be very strong around him and not let
23 him see how hard it is, but it's tough.

24 Q You saw him today after he got off the stand here.
25 How was he doing?

1 A That took a lot out of him. He was in pain, and
2 he just wanted to go sit down, and so.

3 Q How does Dale find joy now today even with this
4 diagnosis?

5 A Oh, well, you know, his grandchildren. I mean, he
6 has -- he loves to be around them, and he loves to play
7 with them and tease them, and he loves to tell them
8 stories. But, you know, he can't garden any longer.
9 Can't cut grass any longer. We just -- that's sad.
10 That's sad for him. He'll try to take my mom out to
11 lunch. They like to do that on Friday and Saturdays.
12 They like to go out to lunch, and he thinks he can do
13 some things. He thinks he can still do things that he
14 used to do, but he quickly finds out that he can't.

15 Q And that's different?

16 A And that's sad.

17 Q Thank you.

18 THE COURT: All right.

19 Cross-examination.

20 MR. McLEOD: Just very briefly, Your Honor.

21 THE COURT: Yes, sir, Mr. McLeod.

22 CROSS-EXAMINATION

23 BY MR. McLEOD:

24 Q Ms. Pavlish, how are you? My name is Yancey
25 McLeod. I am from Columbia. I just have a few

1 questions for you.

2 You don't have any information about your father's
3 occupational exposures at Duke, correct?

4 A No.

5 Q Okay. Have y'all been -- as a family, have you
6 been pleased with the care you've received at Duke?

7 A Yes.

8 Q They've impressed you as far as trying to help
9 your father and being knowledgeable about
10 asbestos-related diseases?

11 A For my dad's care, yes. Yes.

12 Q Okay. Thanks.

13 MR. McLEOD: No further questions.

14 THE COURT: Anything further, Ms. McVey?

15 MS. McVEY: No, ma'am.

16 THE COURT: All right.

17 Ms. Pavlish, you may come down.

18 THE WITNESS: Thank you.

19 MS. FARRISE: The plaintiffs would call as their
20 next witness Brenda Jolly.

21 THE COURT: All right. Ms. Jolly, would you come
22 around, please, ma'am.

23 Ms. Jolly, if you will come here to the clerk,
24 they will administer the oath.

25 BREND A JOLLY,

1 BEING FIRST DULY SWORN, TESTIFIED AS FOLLOWS:

2 DIRECT EXAMINATION

3 BY MS. FARRISE:

4 Q Good afternoon, Mrs. Jolly.

5 A Good afternoon.

6 Q You had a chance to be here in your lawsuit and
7 hear your daughter testify. I want to just ask you a
8 couple more questions about some of the things she
9 talked about, and then I may have just a few brief
10 questions on some other things. Okay?

11 A (Nodding.)

12 Q Have you seen, Mrs. Jolly, since your husband has
13 been diagnosed with mesothelioma, him endure pain?

14 A Yes.

15 Q Can you walk the jury through just the pain
16 aspects of what he's been dealing with and what you've
17 seen.

18 A Okay. It started with the operation, the pain
19 from there. And then he had the blood poisoning. And
20 then he had something else that he was in the hospital
21 for two weeks, I think, in August. He could not eat,
22 and he was in -- just pain.

23 Q Does he -- did you see him take medication for
24 pain, or do you give him medication?

25 A Yes. He never would take a pain pill ever. But

1 in the last, I'd say, month, or before then, he takes
2 pain medication and it helps him a little bit, gives
3 him a little strength.

4 Q Do you know what kind of pain medication he takes?

5 A It's Norco.

6 Q And how often these days do you see him or do you
7 help him take Norco for pain?

8 A The doctor said he could take it four times a day,
9 but he usually takes it just two, one in the morning
10 and one in the afternoon.

11 Q And taking the Norco, do you see anything that
12 appears to you to suggest it may not deal with all of
13 the pain?

14 A Not all of the pain, but it helps.

15 Q How do you know that, that it doesn't deal with
16 all of the pain?

17 A Well, he's still in pain. But after he takes one,
18 he always takes a bath every day. In his job, he loved
19 to go to the grocery store. That was his job. And
20 he'll do everything around 12 o'clock. He'll take a
21 bath, and he will take that pill, and then we will go
22 to the grocery store maybe for a loaf of bread or out
23 to lunch.

24 Q And how long does his stamina last these days?

25 A From the medicine or from just -- he thinks he can

1 go, and he wants to go, but it doesn't last long. We
2 don't stay anywhere very long. He'll say, "We have to
3 go."

4 Q What's a typical day like these days?

5 A These days? Well, he will get up and eat his
6 breakfast, same thing every day. And then he always
7 brought me coffee in bed and he still does that. And
8 then we'll just sit around, or he watches TV more than
9 he ever has. And we just sit around and talk or run to
10 town.

11 Q Before your husband got diagnosed and started to
12 feel the effects of mesothelioma, did he have those
13 kind of days where he just sat around --

14 A No.

15 Q -- and watched TV? Give us an idea of what it was
16 like, a typical day before.

17 A Typical day for Dale. He's an A. He would go to
18 work, come home from work and eat. If it was
19 summertime, he would go jump on the tractor and do the
20 garden. Wintertime, he would go rake leaves or just to
21 be outside until it got dark; then he came back in.

22 Q Active?

23 A Active, yes. Very active.

24 Q We heard a little bit about the garden. Can you
25 share with the jury what is he growing in that garden?

1 A Oh, he -- corn, okra, tomatoes, cucumbers, peas,
2 just everything. A lot of things.

3 Q And for how long over your married life has that
4 been the case, that he's maintained this garden?

5 A Oh, ever since we married, really. Not a big
6 garden, but it started to be a bigger garden.

7 Q How big is it now?

8 A We don't have one.

9 Q When did it stop?

10 A I think around 2014. Our son that summer planted
11 him some tomatoes and things, but they didn't -- we
12 have not had a garden since then.

13 Q Tell the jury how long you and Dale have been
14 married.

15 A It will be 51 years August the 19th.

16 Q So for about 48 of those years he's had some kind
17 of garden?

18 A Yes.

19 Q In the time period before he got sick with
20 mesothelioma, did the garden feed the family to some
21 extent?

22 A Yes.

23 Q Was there leftovers?

24 A Yes, and he would share those.

25 Q Tell us about that.

1 A He would with neighbors and friends. But we ate
2 out of the garden all summertime.

3 Q How about charities?

4 A Yeah. He shared with his -- the neighbors all
5 around.

6 Q I think somewhere I've read or heard something
7 about his garden supplying the Meals on Wheels folks.

8 A Yes.

9 Q Tell us about that.

10 A He would carry things to the Meals on Wheels, yes.

11 Q And, Mrs. Jolly, you mentioned a moment ago
12 something that struck me. What is this about coffee in
13 bed?

14 A He has always done that for me, even when he's --
15 after this. He'll ask me if I'm ready for my coffee,
16 and I say yes, and he brings it to me in bed.

17 Q For how many of the 50 years has that been the
18 case?

19 A Oh, a long time. A long time.

20 Q How did you and Dale Jolly meet?

21 A Well, we knew each other in grammar school and
22 high school. We were friends. And then when I
23 graduated, I went straight to work, and he went to
24 North Greenville Junior College. It was a two-year
25 college at that time. Then he came back, and we got

1 together. He called me up and asked me if I would like
2 to go to a movie, and I said yes.

3 Q Can you describe for the jury or in some ways
4 introduce the jury to the Dale who you knew and who you
5 have spent your life with before mesothelioma pushed
6 the stop button.

7 A Okay. He was always a sharing, caring person.
8 And he just loved -- he was a teacher, loved to teach.
9 And he loved to learn. And it's been 51 years of a
10 good marriage, you know. You have your ups and your
11 downs, but he's a good provider.

12 Q I was going to say, what's the secret?

13 Mrs. Jolly, since Mr. Jolly has gotten diagnosed
14 with mesothelioma and been treated, have you and he,
15 because of his illness, spent time at the doctors or
16 hospital?

17 A Yes. We spend a lot of time at the hospitals and
18 the doctor appointments.

19 Q How much of your life these days and at the
20 different points when he had the surgery and other
21 things is taken over by doctor appointments, visits,
22 scans, and hospital stays?

23 A Since December when it was first discovered until
24 now, it's just been doctors' appointments, trips up to
25 Duke, and that's our calendar now, our doctor

1 appointments, but --

2 Q So you spend a lot of time together?

3 A Yes.

4 Q You heard your daughter talk about the different
5 things, the different places he's been, hospitals,
6 rehab. Have you been there?

7 A Yes.

8 Q So you get to spend a lot of time together?

9 A Right.

10 Q But can you describe in your own words,
11 Mrs. Jolly, the impact that Dale's illness has had on
12 the relationship that you previously shared with him?

13 A First of all, I'm his wife, but now I'm also his
14 caretaker, you know. I love to do it, but it's -- it's
15 a loving relationship. I just want to make sure he's
16 comfortable and gets everything he needs.

17 Q Other than hospital visits and the things you
18 talked about, do you have opportunities to do things
19 together like you used to do nowadays? You told us
20 about a few things, lunch and the grocery store for a
21 loaf of bread.

22 A Yeah. And we do -- haven't been able to go to
23 church like we used to. We enjoy that. And we enjoy
24 friends coming over. And we've always loved the beach,
25 to take our children. We used to do that every year.

1 Q In terms of what you are aware of, ma'am, what
2 have you been told to anticipate or expect moving
3 forward? I know your daughter just talked about this
4 experimental treatment.

5 A We're hopeful that it will shrink. They said two
6 people with the same condition could take that drug.
7 It might help one and not the other. So this Monday he
8 has a CAT scan to see if it's going to work on him.

9 Q Have you seen any side effects that you have
10 noticed from his latest treatment?

11 A Yes.

12 Q Can you tell the jury about that?

13 A He gets very tired, just easily worn out. About
14 the third and fourth day, it hits him, and he just has
15 to lay down. He has no strength. No strength.

16 (Telephone interruption.)

17 THE COURT: That is a violation of Justice Toal's
18 order, and the bailiff needs to seize her cell phone.

19 Mrs. Jolly, my apologies to you. Members of the
20 jury, my deep apologies to you. Counsel, I'm so sorry.
21 I'm in contempt of myself.

22 Please continue, Ms. Jolly.

23 BY MS. FARRISE:

24 Q I was asking you about the side effects of the
25 treatment and what you've seen.

1 A It's just he's wiped out, no -- the chemo, I
2 think, was worse on him as far as how long it lasted,
3 but this just -- and each treatment, it makes it worse.
4 He's had two treatments, and he goes next Monday for
5 the third one. And each one is stronger and more --
6 it's harder on him.

7 Q You mentioned the chemo. Your daughter testified
8 that he had three cycles, is what they call it?

9 A Yes, ma'am.

10 Q Did you notice any side effects that you saw him
11 enduring from the chemotherapy treatments that he had
12 back in early 2016?

13 A Very much so.

14 Q Can you describe those for the jury?

15 A He was -- his feet would be swollen and just
16 couldn't eat, you know, was in pain. But his feet were
17 swollen to twice the size and very painful.

18 Q Some people experience nausea, things like that.
19 Did he have any of that?

20 A He had nausea and couldn't eat.

21 Q Before your husband was diagnosed with
22 mesothelioma, what was his normal weight, about, and
23 size and things like that?

24 A I would say maybe 190, 200, around that.

25 Q What size pants and shirt?

1 A He wore a 40, and he wears a 36 now.

2 Q And before he got sick, was Dale the type of
3 person who enjoyed a meal with family and friends?

4 A Oh, yes. He loved that. He loved the company.

5 Q How about now?

6 A No. He loves to go out, but he's ready to come
7 home. He just --

8 Q Mrs. Jolly, I've been asking you a lot about Dale.
9 Can you describe in your own words for the jury the
10 impact of Dale's mesothelioma on you?

11 A It's made me aware of how precious life is, you
12 know, take it for granted. Being his caregiver, you
13 just realize how precious life is, you know.

14 Q Thank you, ma'am.

15 THE COURT: Cross-examination, Counsel?

16 MR. McLEOD: No questions, Your Honor.

17 THE COURT: No questions.

18 Ms. Jolly, thank you, ma'am.

19 Ms. McVey, your next witness?

20 MS. McVEY: Your Honor, we plan on publishing a
21 few interrogatories. But based on your prior ruling,
22 we need a little time to regroup.

23 THE COURT: Like what are you talking about?

24 MS. McVEY: How much time?

25 THE COURT: Yes.

1 MS. McVEY: Five minutes, ten minutes.

2 THE COURT: Let's allow the jury to go to the jury
3 room. And why don't y'all be back in 15 minutes, so
4 that would be at about ten after, if that's okay.

5 (WHEREUPON, the jury exited open court at
6 2:55 p.m.)

7 THE COURT: We'll just be at ease. Let me know
8 when you will be ready for the jury.

9 MS. McVEY: Thank you. I appreciate the courtesy.

10 (WHEREUPON, a recess was taken from 2:55 p.m. to
11 3:06 p.m.)

12 MS. McVEY: Your Honor, these are the Crosby
13 interrogatories we discussed this morning. And if I
14 understood your ruling, we're going to read the full
15 answer, objections and all.

16 THE COURT: Unless y'all have got some other more
17 peaceful way you can manage that. But, otherwise,
18 that's what we'll do.

19 MS. McVEY: I mean, that was my understanding, we
20 wanted it all to come in.

21 MR. REID: At one point, Your Honor had
22 mentioned --

23 THE COURT: At one point I ruled in your favor,
24 and then you immediately transitioned into an area
25 where sauce for the goose was not going to be sauce for

1 the gander, so I said, "Well, I'm not going to exclude
2 the one and not the other."

3 MS. McVEY: That suits me.

4 THE COURT: So I said, "Hey, let everything come
5 in," side comments, objections, so forth.

6 MS. McVEY: That works for us. What we'd like to
7 do is have me call Crosby to the stand via
8 interrogatory and let Jonathan read the answers. Let
9 me ask the question and let Jonathan read the answers.

10 THE COURT: That's fine.

11 MS. McVEY: And, Your Honor, could we publish the
12 documents as we go so -- it's a lot of reading. I hate
13 for the jury to sit there. So they can read along with
14 us.

15 THE COURT: Yes. Unless y'all got some problem
16 with that. They would put it up on the screen, and
17 they would read, and the jury could follow along on the
18 screen; is that right?

19 MS. McVEY: Yes, ma'am.

20 MR. McLEOD: I think as long as, obviously --

21 MS. McVEY: The full --

22 THE COURT: It's the full deal.

23 MR. REID: Judge, just to capture it all, and I
24 don't mean to rehash things. I want to state where we
25 are as opposed to reargue. I'm not asking you to

1 reconsider, but we do object to the extent there are
2 answers concerning things pre-1979 which is when
3 Mr. Jolly started at Duke. And to the extent they are
4 about valves that Crosby made not in this case, we
5 object.

6 THE COURT: You don't need to go through all that,
7 Mr. Reid. That's perfectly much on the record at
8 length, and I have initially thought that I would try
9 to split the baby by picking a date that was right
10 before most of these valves would have been installed
11 that Mr. Jolly was exposed to, and I picked 1965
12 because of some of the information I knew about some of
13 the older plants.

14 But then we got into a situation whereupon y'all
15 objected to some of the more historical material that
16 would have been contained in the material that
17 Ms. McVey wanted to put forward, and so my solution was
18 just to say the whole interrogatory is -- I mean the
19 whole interrogatory is coming in because it's all sworn
20 statement by a party to this litigation, Crosby Valve.

21 I wish there had been some way to at least clean
22 out some of the unnecessary material, but I must say,
23 the concept that because it's historical it has no
24 relevance is really belied by the arguments y'all have
25 made to the jury to begin with, by some of the evidence

1 you have put in about regulations that predate the
2 installations at Duke and so forth. So I felt the best
3 way to handle it, since each party is doing a little
4 bit of borrowing from previous history, was just to let
5 it all come in. So that's the foundation of my ruling,
6 and it goes both to its nature as sworn material from a
7 party opponent as well as notice and history and the
8 overall posture in which the two of you put it in your
9 opening statements.

10 You are completely protected on the record. You
11 object to that and think the more expanded historical
12 material is prejudicial and not relevant, and I respect
13 that.

14 MR. REID: Thank you, Your Honor.

15 MS. McVEY: Your Honor, one more thing and then
16 we're ready. Could you explain to the jury what an
17 interrogatory is or --

18 THE COURT: Certainly.

19 MS. McVEY: Okay. Thank you.

20 We're ready.

21 THE COURT: Bring us the jury.

22 (WHEREUPON, the jury entered open court at
23 3:11 p.m.).

24 THE COURT: Ladies and gentlemen of the jury, the
25 plaintiff will now introduce into evidence what are

1 called interrogatories.

2 These particular documents, the interrogatories,
3 are questions that one party can ask to the other party
4 about issues related to the matter or the parties
5 involved or surrounding circumstances. And the answers
6 are given under oath, so it's just like sworn
7 testimony.

8 In this case, these are interrogatories propounded
9 to Crosby Valve in another case, but what they're
10 seeking to put before you are matters related to the
11 company and how it does business and so forth. And
12 since these are statements under oath by a
13 representative of Crosby Valve, and, in fact, one of
14 them you may hear from later on in these proceedings in
15 the plaintiffs' case, they're putting this material
16 into evidence.

17 And the way they're going to do it is Mr. Holder,
18 one of Ms. McVey's colleagues, will come and sit in the
19 witness chair, and she will propound the interrogatory
20 and he will answer. And they're going to put it up on
21 the screen as well so you can kind of follow it that
22 way. So, hopefully, we will move along in that
23 fashion.

24 So this is just like evidence that would be given
25 under oath here from the witness stand except it takes

1 this form of this kind of document called an
2 interrogatory.

3 All right, Ms. McVey.

4 MS. McVEY: Thank you, Your Honor.

5 The plaintiffs would call Crosby Valve to the
6 stand.

7 CROSBY VALVE, LLC
8 (via interrogatory responses),
9 (Responses read by Mr. Holder)

10 THE COURT: I'll give y'all a moment.

11 MS. McVEY: I'm sorry, Your Honor. We should have
12 been better situated.

13 DIRECT EXAMINATION

14 BY MS. McVEY:

15 Q Have you at any time engaged in the processing,
16 marketing, and sale of products containing asbestos
17 fibers?

18 THE COURT: One moment, Ms. McVey. Let him get
19 this thing in focus a little bit. You don't need to --
20 this whole document is going to be read, sir. So all
21 you need to do is follow along with the pages. I don't
22 think you need to black out any of it.

23 MS. FARRISE: It's me.

24 THE COURT: Ms. Farrise, you may need a little
25 technical help. Looks like you're putting up the

1 redacted version, but that's not the version that's
2 supposed to be put up. The version that's supposed to
3 be put up is the whole thing.

4 MS. McVEY: Can we approach for a second?

5 (WHEREUPON, a bench conference was held off the
6 record in the presence of the jury, but out of the
7 hearing of the jury.)

8 THE COURT: A few technical adjustments here, and
9 I think they will be ready to proceed.

10 MS. McVEY: I'm sorry. I think we have got it
11 together.

12 Q Let me repeat the question. Have you at any time
13 engaged in the processing, marketing, and sale of
14 products containing asbestos fibers?

15 A Yes. Crosby manufactured some valves that
16 incorporated component parts manufactured by its
17 suppliers that contained encapsulated chrysotile
18 asbestos for a period of years.

19 Q If your answer's in the affirmative, please state
20 the trade or brand name of each product, mined,
21 manufactured and/or marketed.

22 That's Subsection A.

23 A A. 1. Crosby, JMB, JMAB, JR Series valves. Trade
24 name Crosby Valve.

25 2. Crosby, JA-6, JA-8 Series valves. Trade name

1 Crosby Valve.

2 3. Crosby JQ Series valves. Trade name Crosby
3 Valve.

4 4. Ashton GC series valves. Trade name Ashton.

5 5. Crosby JPV Series valves. Trade name Crosby
6 Valve.

7 6. Crosby 400, 500, 600 Series valves. Trade
8 name Sage and/or Crosby.

9 7. Crosby JOS, JBS Series valves. Trade name
10 Crosby Valve.

11 8. Crosby JO and JP Series valves. Trade name
12 Crosby Valve.

13 9. Crosby JB Series valves. Trade name Crosby
14 Valve.

15 10. Crosby RSD, RSDW, and VIP rupture discs.
16 Trade name Crosby valve. Crosby IPS Series valves.
17 Did not have a trade name. Crosby HPV and HPV-ST
18 Series valves. Trade name Crosby Valve. Crosby Gage
19 boards. Trade name Crosby Valve.

20 (Telephone interruption.)

21 MS. FARRISE: Stop. I get my one get-out-of-jail
22 free card. I think that's me.

23 THE COURT: The jury and the defense haven't done
24 anything bad. The judge and the plaintiff are in the
25 doghouse.

1 All right.

2 THE WITNESS: 14. Crosby JJ, JJE, JJB, and JJA.

3 Trade name Crosby Valve.

4 15. Crosby JM and JMA valves. Trade name Crosby
5 Valve.

6 16. Crosby JW valves. Trade name Crosby Valve.

7 17. Crosby JJC, JJBC, and JJAC valves. Trade
8 name Crosby Valve.

9 Q Please state the dates that each of such products
10 were placed on the market.

11 A B. 1. Crosby JMB, JMAB, JR Series valves.
12 Approximately 1939.

13 2. Crosby JA-6, JA-8 Series valves.
14 Approximately 1930.

15 3. Crosby JQ Series valves, 1936.

16 4. Ashton GC Series valves, 1951.

17 5. Crosby JPV Series valves, 1968.

18 6. Sage Crosby 400 -- excuse me. Sage/Crosby
19 400, 500, 600 Series valves, 1969.

20 7. Crosby JOS, JBS Series valves, 1980.

21 8. Crosby JO and JP Series valves, approximately
22 1930.

23 9. Crosby JB Series valves, 1955.

24 10. Crosby RSD, RSDW, and VIP Series rupture
25 discs, 1972.

1 11. Crosby IPS Series valves, 1933.

2 12. Crosby HPV Series valves, 1940. Crosby
3 HPV-ST Series valves, 1960.

4 13. Crosby Gage boards. Upon information and
5 belief, the Crosby Gage boards were manufactured in the
6 1930s. Specific dates of production are unknown.

7 14. Crosby JJ, JJE, JJB and JJA, approximately
8 1933.

9 15. Crosby JM and JMA valves, approximately 1930.

10 16. Crosby JW valves, 1930.

11 17. Crosby JJC, JJBC and JJAC valves, 1939.

12 Q Subsection C. Please state the dates that each of
13 such products were withdrawn from the market.

14 A C. 1. Crosby JMB, JMAB, JR Series valves, phased
15 out in 1991.

16 2. Crosby JA-6, JA-8 Series valves, replaced in
17 1951.

18 3. Crosby JQ Series valves, still in production.

19 4. Ashton GC Series valves, discontinued 1975.

20 5. Crosby JPV Series valves, still in production.

21 6. Sage/Crosby 400, 500, 600 Series valves. The
22 400 and 500 series were phased out in approximately
23 1991. The 600 Series was phased out in approximately
24 1984.

25 7. Crosby JOS, JBS, Series valves, still in

1 production. Crosby J0 series valves -- excuse me.

2 8. Crosby J0 Series valves, phased out in 1975.

3 Crosby JP Series valves phased out in 1943.

4 9. Crosby JB Series valves phased out in 1975.

5 10. Crosby RSD, RSDW, and VIP Series rupture
6 disc, product line sold in 1987.

7 9. Crosby IPS Series valves manufactured one time
8 in 1933 for use aboard naval vessels, USS New Orleans,
9 the USS San Francisco, the USS Minneapolis, and the USS
10 Astoria.

11 12. Crosby HPV Series valves, still in
12 production. Crosby HPV-ST Series valves, discontinued
13 in 1996.

14 13. Crosby Gage boards. Upon information and
15 belief, the Crosby Gage boards were manufactured in the
16 1990s. Specific dates of production unknown.

17 14. Crosby JJ, JJE, JJB and JJA, phased out in
18 1950.

19 15. Crosby JM and JMA valves, phased out in 1937.

20 16. Crosby JW valves, phased out in 1975.

21 17. Crosby JJC, JJBC, and JJAC valves, phased out
22 in 1950.

23 Q Subsection D. Please state a description of the
24 physical, i.e., chemical composition, of each such
25 product including the type of asbestos contained in

1 each product, i.e., amosite, chrysotile, crocidolite,
2 the quantative percentage of asbestos in each product,
3 each nonasbestos chemical contained in each product.

4 A D. 1. Crosby JMB, JMAB, JR Series valves
5 contained steel jacket asbestos gaskets manufactured by
6 its suppliers until 1989. To the best of Crosby's
7 knowledge, the gaskets contained chrysotile asbestos.
8 Crosby is unaware of the percentage of chrysotile
9 asbestos contained in the gaskets manufactured by its
10 suppliers.

11 2. Crosby JA-6, JA-8 Series valves contained
12 asbestos gaskets manufactured by its suppliers from
13 1939 until the valves were replaced in 1950. To the
14 best of Crosby's knowledge, the gaskets contained
15 chrysotile asbestos. Crosby is unaware of the
16 percentage of chrysotile asbestos contained in the
17 gaskets manufactured by its suppliers.

18 3. Crosby JQ Series valves contained asbestos
19 gaskets manufactured by its suppliers until 1989. To
20 the best of Crosby's knowledge, the gaskets contained
21 chrysotile asbestos. Crosby is unaware of the
22 percentage of chrysotile asbestos contained in the
23 gaskets and packing manufactured by its suppliers.

24 4. Ashton GC Series valves contained
25 asbestos-graphited packing manufactured by its

1 suppliers until they were discontinued in 1975. To the
2 best of Crosby's knowledge, the packing contained
3 chrysotile asbestos. Crosby is unaware of the
4 percentage of chrysotile asbestos contained in the
5 gaskets manufactured by its suppliers.

6 5. Crosby JPV Series valves contained asbestos
7 gaskets manufactured by its suppliers from 1968 to
8 1970. To the best of Crosby's knowledge, the gaskets
9 contained chrysotile asbestos. Crosby is unaware of
10 the percentage of chrysotile asbestos contained in the
11 gaskets manufactured by its suppliers.

12 6. Sage/Crosby 600 Series valves contained
13 asbestos gaskets and packing manufactured by its
14 suppliers until they were phased out in 1984.
15 Sage/Crosby 400 and 500 Series valves contained
16 asbestos gaskets and packing manufactured by its
17 suppliers until 1989. To the best of Crosby's
18 knowledge, the gaskets and packing contained chrysotile
19 asbestos. Crosby is unaware of the percentage of
20 chrysotile asbestos contained in the gaskets and
21 packing manufactured by its suppliers.

22 7. Crosby JOS, JBS Series valves contained
23 asbestos gaskets manufactured by its suppliers from
24 1980 to 1989. The JOS and JBS series valves were also
25 offered with a packed lifting lever that incorporated

1 asbestos packing on valves used for chlorine services
2 or services involving other caustic materials from 1980
3 to 1989. The JAS and JBS Series valves that may have
4 been used in naval vessels on steam lines did not
5 incorporate asbestos packing in the lifting levers. To
6 the best of Crosby's knowledge, the gaskets contained
7 chrysotile asbestos. Crosby is unaware of the
8 percentage of chrysotile asbestos contained in the
9 gaskets manufactured by its suppliers.

10 8. Crosby J0 and JP Series valves may have
11 incorporated asbestos gaskets in speciality application
12 valves requested by customers from 1940 to 1975. The
13 J0 and JP Series valves may have also contained copper
14 asbestos gaskets from approximately 1930 to 1938. The
15 J0 and JP Series valves used in naval vessels on steam
16 lines did not incorporate asbestos gaskets. The J0
17 series valves were also offered with a packed lifting
18 lever that incorporated asbestos packing on valves used
19 for chlorine services or service involving other
20 caustic materials from 1940 to 1975. The JP Series
21 valves were also offered with a packed lifting lever
22 that incorporated asbestos packing on valves used for
23 chlorine services or service involving other caustic
24 materials from 1938 to 1943. The J0 and JP Series
25 valves that may have been used in naval vessels on

1 steam lines did not incorporate asbestos packing in the
2 lifting levers. To the best of Crosby's knowledge, the
3 gaskets and packing contained chrysotile asbestos.
4 Crosby is unaware of the percentage of chrysotile
5 asbestos contained in the gaskets and packing
6 manufactured by its suppliers.

7 9. Crosby JB Series Valves may have incorporated
8 asbestos gaskets in speciality application valves
9 requested by customers from 1957 to 1975. The JB
10 Series valves may have also contained copper asbestos
11 gaskets from approximately 1930 to 1938. The JB Series
12 valves used in naval vessels on steam lines did not
13 incorporate asbestos gaskets. The JB Series valves
14 were also offered with a packed lifting lever that
15 incorporated asbestos packing on valves used for
16 chlorine services or service involving other caustic
17 materials from 1907 to 1975. The JB Series valves that
18 may have been used in naval vessels on steam lines did
19 not incorporate asbestos packing in the lifting levers.
20 To the best of Crosby's knowledge, the gaskets and
21 packing contained chrysotile asbestos. Crosby is
22 unaware of the percentage of chrysotile asbestos
23 contained in the gaskets and packing manufactured by
24 its suppliers.

25 10. Crosby rupture discs contained asbestos

1 gaskets manufactured by its suppliers until the product
2 line was sold in 1987. To the best of Crosby's
3 knowledge, the gaskets contained chrysotile asbestos.
4 Crosby is unaware of the percentage of chrysotile
5 asbestos contained in the gaskets manufactured by its
6 suppliers.

7 11. Crosby IPS Series valves contained
8 asbestos-containing braided packing manufactured by its
9 suppliers at the time of their production in 1933. The
10 IPS Series valves were manufactured one time in 1933
11 for use aboard naval vessels USS New Orleans, USS San
12 Francisco, USS Minneapolis --

13 MR. REID: It's Minneapolis misspelled. We'll
14 stipulate to that.

15 A -- and USS Astoria. To the best of Crosby's
16 knowledge, the packing contained chrysotile asbestos.
17 Crosby is unaware of the percentage of chrysotile
18 asbestos contained in the packing manufactured by
19 suppliers.

20 12. Crosby HPV Series valves contained asbestos
21 gaskets manufactured by its suppliers from 1940 to
22 1989. Crosby HPV-ST series valves contained asbestos
23 gaskets manufactured by its suppliers from 1960 to
24 1986. To the best of Crosby's knowledge, the gaskets
25 contained chrysotile asbestos. Crosby is unaware of

1 the percentage of chrysotile asbestosis contained in
2 the gaskets manufactured by its suppliers.

3 13. Crosby Gage boards. Upon information and
4 belief, some Crosby Gage boards contained ebony
5 asbestos manufactured by its suppliers. Crosby is
6 unaware of the percentage or type of asbestos contained
7 in the boards manufactured by its suppliers.

8 14. Crosby JJ, JJE, JJB and JJA Series valves
9 contained copper asbestos gaskets manufactured by its
10 suppliers in 1933. To the best of Crosby's knowledge,
11 the gaskets contained chrysotile asbestos. Crosby is
12 unaware of the percentage of chrysotile asbestos
13 contained in the gaskets manufactured by its suppliers.

14 15. Crosby JM and JMA valves contained copper
15 asbestos gaskets manufactured by its suppliers in 1930
16 to 1937. To the best of Crosby's knowledge, the
17 gaskets contained chrysotile asbestos. Crosby is
18 unaware of the percentage of chrysotile asbestos
19 contained in the gaskets manufactured by its suppliers.

20 16. Crosby JW valves contained copper asbestos
21 gaskets manufactured by its suppliers in 1930 to 1938.
22 To the best of Crosby's knowledge, the gaskets
23 contained chrysotile asbestos. Crosby is unaware of
24 the percentage of chrysotile asbestos contained in the
25 gaskets manufactured by its suppliers.

1 17. Crosby JJC, JJBC, and JJAC valves were
2 offered with a packed lifting lever that incorporated
3 asbestos packing on valves used for chlorine services
4 or services involving other caustic materials from 1939
5 to 1950. To the best of Crosby's knowledge, the
6 packing contained chrysotile asbestos. Crosby is
7 unaware of the percentage of chrysotile asbestos
8 contained in the packing manufactured by its suppliers.

9 Q Subsection E, description of the physical
10 appearance of each product.

11 A E. 1. The Crosby JMB, JMAB, JR Series valves
12 were closed bonnet valves. The valves were mounted on
13 the system with the spring vertical upright position,
14 and fluid would enter through the bottom of the valve
15 and discharge at a 90-degree angle. The valves were
16 generally small in size, and the ranges of inlet
17 diameters and height of the valves varied. The
18 standard paint applied to the outside of the JMB, JMAB,
19 JR Series valves was blue in color.

20 2. The Crosby JA-6, JA-8 series valves were
21 closed bonnet valves. The valves were mounted on the
22 system with the spring vertical upright position, and
23 fluid would enter through the bottom of the valve and
24 discharge at a 90-degree angle. The typical size range
25 of inlet inside diameters are from a half inch to two

1 and a half inches and outlet from one half to two and a
2 half inches. The overall height of the valves varied
3 depending on the inlet size from approximately five
4 inches to approximately 12 inches. The standard paint
5 applied to the outside of the JA-6, JA-8 Series valves
6 were either silver or blue in color.

7 3. The Crosby JQ Series valves are closed bonnet
8 valves. The valves are mounted on the system with the
9 spring vertical upright position, and fluid would enter
10 through the bottom of the valve and discharge out the
11 top of the valve. The size range of the inlet inside
12 diameters were one and a half to four inches. The
13 overall height of the valves vary depending on inlet
14 size. The standard paint applied to the outside of the
15 JQ Series valves is blue in color.

16 The Ashton GC series valves are closed bonnet
17 valves. The valves -- Number 4. Excuse me. The
18 valves are mounted on the system with the spring
19 vertical upright position and the vapor or liquid would
20 enter through the bottom of the valve and discharge at
21 a 90-degree angle. The ranges of inlet diameters and
22 height of the valves varied. The CG Series valves are
23 made of bronze and were not painted.

24 5. The Crosby JPV Series valve is a
25 pilot-operated safety relief valve. The valve is

1 mounted on the system with the spring vertical upright
2 position, and steam would enter through the bottom of
3 the valve and discharge at a 90-degree angle. The
4 typical size range of inlet inside diameters are from
5 ten inches to 20 inches and outlet from 14 inches to
6 24 inches. The overall height of the valves vary
7 depending on the inlet size, from approximately
8 50 inches to approximately 58 inches. The standard
9 paint applied to the outside of the JPV Series valves
10 is silver in color.

11 6. The Sage/Crosby 400, 500, 600 Series valves
12 were closed bonnet valves. The 600 Series valves only
13 carried the name Sage. The 400 and 500 Series valves
14 carried the name Sage and also may have carried the
15 name Crosby between 1986 and the time they were phased
16 out in 1991. But -- excuse me. Some of the valves had
17 a lifting lever. The valves were mounted on the system
18 with the spring vertical upright position, and fluid
19 would enter through the bottom of the valve and
20 discharge at a 90-degree angle. The ranges of inlet
21 diameters and height of the valves varied. The
22 standard paint applied to the outside of the 400, 500,
23 600 Series valves was blue in color.

24 7. The Crosby JOS, JBS Series valves are closed
25 bonnet valves. Some of the valves used for chlorine

1 service or services involving other caustic materials
2 incorporated a packed lifting lever. The valves are
3 mounted on the system with the spring vertical upright
4 position, and fluid would enter through the bottom of
5 the valve and discharge at a 90-degree angle. The
6 ranges of inlet diameters and height of the valves
7 varied. The standard paint applied to the outside of
8 the JOS, JBS Series valves is blue in color.

9 The Crosby JO and JP Series valves, Number 8, were
10 closed bonnet valves. The Crosby JO and JP Series
11 valves were cast iron and cast steel valves. Some of
12 the valves used for chlorine services or services
13 involving other caustic materials incorporated a packed
14 lifting lever. The JO Series valves were mounted on
15 the system with the spring vertical upright position,
16 and fluid would enter through the bottom of the valve
17 and discharge at a 90-degree angle. The ranges of
18 inlet diameters and height of the valves varied.

19 9. The Crosby JB Series valves were closed bonnet
20 valves. Some of the valves used for chlorine services
21 or services involving other caustic materials
22 incorporated a packed lifting lever. The valves were
23 mounted on the system with the spring vertical upright
24 position, and fluid would enter through the bottom of
25 the valve and discharge at a 90-degree angle. The

1 ranges of inlet diameters and height of the valves
2 varied. The standard paint applied to the outside of
3 the JOS, JBS Series valves was blue in color.

4 10. The Crosby rupture discs were circular discs
5 placed on process vessels and systems. The diameter of
6 the discs ranged from one inch to eight inches. The
7 discs were black or grey in color.

8 11. Crosby IPS Series valves were open bonnet
9 angle relief valves. The valves contained
10 asbestos-containing braided packing manufactured by its
11 suppliers at the time of their production in 1933. The
12 IPS Series valves were manufactured one time in 1933
13 for use aboard naval vessels USS New Orleans, USS
14 San Francisco, USS Minneapolis, and USS Astoria. The
15 size range of inlet inside diameters were from one
16 fourth inch to four inches. The overall height of the
17 valves varied depending on the inlet size, from
18 approximately seven inches to approximately 20 inches.
19 The standard paint applied to the outside of the IPS
20 Series valves was likely silver in color.

21 12. Crosby HPV Series valves are power-actuated
22 pressure relief valves. The dimensions of the HPV
23 Series valves varies. The standard paint applied to
24 the outside of the HPV Series valves is silver in
25 color. Crosby HPV-ST valve was an electrically

1 actuated pilot-operated relief valve used as a steam
2 vent valve in utility-type power plants.

3 13. Crosby Gage boards were black or grey in
4 color and were utilized to hold gauges.

5 14. Crosby JJ, JJE, JJB, and JJA series valves
6 were closed bonnet steel valves. The valves were
7 mounted on the system with the spring vertical upright
8 position, and fluid would enter through the bottom of
9 the valve and discharge at a 90-degree angle. Some of
10 the valves were supplied with packed lifting levers
11 when service conditions required the valve to be tight
12 on the discharge side. The ranges of inlet diameters
13 was from one and one fourth inches to six inches, and
14 the height was from 17 inches to 43 inches. The
15 standard paint applied to the outside of the valves was
16 typically blue or silver.

17 15. Crosby JM Series valves were small steel
18 valves with threaded connections. The valves were
19 mounted on the system with the spring vertical upright
20 position, and fluid would enter through the bottom of
21 the valve and discharge at a 90-degree angle. The
22 ranges of inlet diameters was from one half inches to
23 one and one fourth inches, and the height was from
24 seven inches to 15 inches. The standard paint applied
25 to the outside of the valves was typically blue or

1 silver. Crosby JMA Series valves were similar in
2 design to Crosby JM Series valves but were also fitted
3 with a hexagonal union connection.

4 16. Crosby JW Series valves were closed bonnet
5 steel valves similar in construction to the Crosby JO
6 Series valves but with a lower capacity rating. The
7 valves were mounted on the system with the spring
8 vertical upright position, and fluid would enter
9 through bottom of the valve and discharge at a
10 90-degree angle. Some of the valves were supplied with
11 packed lifting levers when service conditions required
12 the valve to be tight on the discharge side. The
13 ranges of inlet diameters was from one and a fourth
14 inches to six inches, and the height was from 17 inches
15 to 43 inches. The standard paint applied to the
16 outside of the --

17 MR. REID: 48.

18 THE WITNESS: 48.

19 THE COURT: 17 inches to 48 inches. Are you at 15
20 or 16?

21 THE WITNESS: 16. The ranges of inlet diameters
22 was from one and one fourth inches to six inches, and
23 the height was from 17 inches to 43 inches. The
24 standard paint applied to the outside of the valves was
25 typically blue or silver.

1 17. Crosby JJC, JJBC, and JJAC valves are closed
2 bonnet steel valves. The valves were mounted on the
3 system with the spring vertical upright position, and
4 fluid would enter through the bottom of the valve and
5 discharge at a 90-degree angle. Some of the valves
6 were supplied with packed lifting levers when service
7 conditions required the valve to be tight on the
8 discharge side. The ranges of inlet diameters was from
9 one and one fourth inches to six inches, and the height
10 was from 17 inches to 48 inches. The standard paint
11 applied to the outside of the valves was typically blue
12 or silver.

13 Q Subsection F. Please state a detailed description
14 of the intended use of each product.

15 A F. 1. Crosby JMB, JMAB, JR Series valves were
16 safety relief valves used mostly in processing industry
17 for air and gas service applications.

18 2. Crosby JA-6, JA-8 Series valves were bronze
19 safety relief valves used mostly in processing industry
20 for fluid relief service applications.

21 3. Crosby JQ Series valves are safety relief
22 valves used on chlorine services and services involving
23 other caustic fluids.

24 4. Ashton GC Series valves were bronze relief
25 valves used for liquid applications as well as marine

1 applications.

2 5. Crosby JPV Series valves were pilot-operated
3 safety relief valves used for steam applications in
4 nuclear plants.

5 6. Sage/Crosby 300, 400, 500, 600 Series valves
6 were safety relief valves used for general steam,
7 liquid, and air applications.

8 7. Crosby JOS, JBS Series valves are safety
9 relief valves used in general steam, liquid, or air
10 applications.

11 8. Crosby JO Series valves are safety relief
12 valves used in general steam, liquid, or air
13 applications. Crosby JP Series valves were used in
14 association with liquid applications.

15 9. Crosby JB Series valves are safety relief
16 valves used in general steam, liquid, or air
17 applications.

18 MS. FARRISE: It says "and."

19 THE WITNESS: "And," excuse me.

20 Crosby JB Series valves are safety relief valves
21 used in general steam, liquid, and air applications.

22 10. Crosby rupture discs were rupture discs used
23 in general steam, liquid, and air applications.

24 11. Crosby IPS Series vales were angle relief
25 valves that were manufactured one time in 1933 for use

1 aboard naval vessels USS New Orleans, USS
2 San Francisco, USS Minneapolis, and USS Astoria.
3 Crosby does not have information on the specific uses
4 of the valves.

5 12. Crosby HPV Series valves are power-actuated
6 pressure relief valves used for applications in
7 utility-type power plants. Crosby HPV-ST Series valves
8 were electronically actuated pilot-operated relief
9 valves utilized as steam vent valves associated with
10 utility-type power plants.

11 13. Crosby Gage boards were utilized to hold
12 gauges in unspecified applications.

13 14. Crosby JJ Series valves were manufactured for
14 use associated with oil cracking service and were not
15 used in association with steam applications or boilers.

16 Crosby JJE Series valves were used in association
17 with hot water service. Crosby JJB Series valves were
18 used in liquid, gas, and vapor applications.

19 Crosby JJA series valves were used in association
20 with higher pressure liquid, gas, and vapor
21 applications.

22 15. Crosby JM Series valves were used in
23 association with applications such as oil cracking
24 equipment and caustic pumps, ammonia.

25 16. Crosby JW Series valves were manufactured for

1 use associated with air, gas, oil, vapor, and liquid
2 services with a lower capacity rating than the Crosby
3 J0 Series valves.

4 17. Crosby JJC, JJBC, and JJAC valves were
5 designed to withstand the extreme condition associated
6 with oil cracking service and were suitable for use
7 associated with gas, vapor, and liquid applications.

8 Q Subsection G. Please state the name of the
9 manufacturer for each such product.

10 A G. 1. Crosby JMB, JMAB, JR Series valves, Crosby
11 Valve, Inc. -- Incorporated, excuse me.

12 2. Crosby JA-6, JA-8 Series valves, Crosby Valve,
13 Incorporated.

14 3. Crosby JQ Series valves, Crosby Valve
15 Incorporated.

16 4. Ashton GV Series valves, Ashton Valve and
17 Crosby Valve, Incorporated.

18 5. Crosby JPV Series valves, Crosby Valve,
19 Incorporated.

20 6. Sage/Crosby, 300, 400, 500, 600 Series valves,
21 Sage Valve and Crosby Valve, Incorporated.

22 7. Crosby JOS, JBS Series valves, Crosby Valve,
23 Incorporated.

24 8. Crosby J0 and JP Series valves, Crosby Valve,
25 Incorporated.

1 9. Crosby JB Series valves, Crosby Valve,
2 Incorporated.

3 10. Crosby rupture discs, Crosby Valve,
4 Incorporated.

5 11. Crosby IPS Series valves, Crosby Valve,
6 Incorporated.

7 12. Crosby HPV and HPV-ST series valves, Crosby
8 Valve, Incorporated.

9 13. Crosby Gage boards, Crosby Valve,
10 Incorporated.

11 14. Crosby JJ, JJE, JJB and JJA, Crosby Valve,
12 Incorporated.

13 15. Crosby JM and JMA valves, Crosby Valve,
14 Incorporated.

15 16. Crosby JW valves, Crosby Valve, Incorporated.

16 17. Crosby JJC, JJBC and JJAC valves, Crosby
17 Valve, Incorporated.

18 Q Part H. Please state the mining or milling
19 concern from which the raw asbestos fiber was obtained.

20 A Crosby valves did not contain raw asbestos fiber.

21 Q Have any of the products listed -- Number 16.

22 Have any of the products listed in Interrogatory Number
23 15 been altered in chemical composition or asbestos
24 type or content since first being marketed?

25 A See response to Interrogatory Number 15

1 incorporated herein by this reference. Further
2 answering, Crosby states as follows:

3 1. The steel jacket asbestos gaskets manufactured
4 by its suppliers in the Crosby JMB, JMAB, JR Series
5 valves were removed in 1989.

6 2. The asbestos gaskets manufactured by its
7 suppliers in the Crosby JA-6, JA-8 Series valves were
8 not altered or removed before the products were
9 replaced in 1951.

10 3. The asbestos gaskets and packing manufactured
11 by its suppliers in the Crosby JQ Series valves were
12 removed in 1989.

13 4. The asbestos graphite packing manufactured by
14 its suppliers in the Ashton GC Series valves were not
15 altered or removed before the products were
16 discontinued in 1975.

17 5. The asbestos gaskets manufactured by its
18 suppliers in the Crosby JPV Series valves were removed
19 in 1970.

20 6. The asbestos gaskets and packing manufactured
21 by its suppliers in the Sage/Crosby 300 and 600 Series
22 valves were not altered or removed before the products
23 were discontinued in 1986 and 1984. The asbestos
24 gaskets and packing manufactured by its suppliers in
25 the Sage/Crosby 400 and 500 Series valves were removed

1 in 1989.

2 7. The asbestos gaskets and packing manufactured
3 by its suppliers in the Crosby JOS, JBS Series valves
4 were removed in 1989.

5 8. The asbestos gaskets manufactured by its
6 suppliers in the Crosby JO and JP Series valves were
7 removed in 1938. The asbestos gaskets and packing
8 manufactured by its suppliers incorporated into some of
9 the Crosby JO Series valves used for speciality
10 applications were not altered or removed before the
11 products were phased out in 1975. The asbestos gaskets
12 and packing manufactured by its suppliers incorporated
13 into some of the Crosby JP Series valves used for
14 speciality applications were not altered or removed
15 before the products were phased out in 1938.

16 9. The asbestos gaskets and packing manufactured
17 by its suppliers incorporated into some of the Crosby
18 JB Series valves used for speciality applications were
19 not altered or removed before the products were phased
20 out in 1975.

21 10. The asbestos gaskets manufactured by its
22 suppliers in the Crosby rupture discs were not altered
23 before the product line was sold in 1987.

24 11. The asbestos-braided packing manufactured by
25 its suppliers in the Crosby IPS Series angle relief

1 valves was not altered when the valves were
2 manufactured during 1933.

3 12. The asbestos gaskets manufactured by its
4 suppliers in the Crosby HPV Series valves were removed
5 in 1989. The asbestos gaskets manufactured by its
6 suppliers in the Crosby HPV-ST Series valves were
7 removed in 1989.

8 13. To the best of Crosby's knowledge, the ebony
9 asbestos material manufactured by its suppliers in the
10 Crosby Gage boards was not altered during the time of
11 Crosby's manufacturing in 1940s.

12 14. The copper asbestos gaskets manufactured by
13 its suppliers in the Crosby JJ, ZJE, JJB, and JJA
14 Series valves were removed in 1939. The copper
15 asbestos gaskets manufactured by suppliers in the
16 Crosby JM and JMA Series valves were removed in 1936.

17 16. The copper asbestos gaskets manufactured by
18 its suppliers in the Crosby JW Series valves were
19 removed in 1938.

20 17. The asbestos packing manufactured by its
21 suppliers incorporated into some of the lifting levers
22 for the Crosby JJC, JJBC, and JJAC Series valves used
23 for speciality applications were not altered or removed
24 before the products were phased out in 1950.

25 Q Going to Interrogatory Number 17. If so, please

1 state the trade name of each product, the date each
2 product was altered, the nature of the alteration, and
3 the reason for the alteration.

4 A See response to Interrogatory Number 16
5 incorporated herein by this reference. Further
6 answering, Crosby states as follows:

7 1. The steel jacket asbestos gaskets manufactured
8 by its suppliers in the Crosby JMB, JMAB, JR Series
9 valves were removed in 1989 because viable
10 asbestos-free substitutes became available.

11 2. The asbestos gaskets manufactured by its
12 suppliers in the Crosby JA-6, JA-8 Series valves were
13 not altered or removed before the products were
14 replaced in 1951.

15 3. The asbestos gaskets and packing manufactured
16 by its suppliers in the Crosby JQ Series valves were
17 removed in 1989 because viable asbestos-free
18 substitutes became available.

19 The asbestos gaskets and graphited manufactured by
20 its suppliers in the Ashton GC Series valves were not
21 altered or removed before the products were
22 discontinued in 1975.

23 5. The asbestos gaskets manufactured by its
24 suppliers in the Crosby JPV Series valves were removed
25 in 1970.

1 6. The asbestos gaskets and packing manufactured
2 by its suppliers in the Sage/Crosby 300 and 600 Series
3 valves were not altered or removed before the products
4 were discontinued in 1986 and 1984. The asbestos
5 gaskets and packing manufactured by its suppliers in
6 the Sage/Crosby 400 and 500 Series valves were removed
7 in 1989 because viable asbestos-free substitutes became
8 available.

9 7. The asbestos gaskets manufactured by its
10 suppliers in the Crosby JOS, JBS Series valves were
11 removed in 1989 because viable asbestos-free
12 substitutes became available.

13 8. The asbestos gaskets manufactured by its
14 suppliers in the Crosby JO and JP Series valves were
15 replaced by Akro-Metal in 1938. The asbestos packing
16 manufactured by its suppliers incorporated into some of
17 the Crosby JP Series valves used for specialty
18 applications were not altered or removed before the
19 products were phased out in 1943. The asbestos gaskets
20 and packing manufactured by its suppliers incorporated
21 into some of the Crosby JO Series valves used for
22 speciality applications were not altered or removed
23 before the products were phased out in 1975.

24 9. The asbestos gaskets and packing manufactured
25 by its suppliers incorporated into some of the Crosby

1 JB Series valves used for speciality applications were
2 not altered or removed before the products were phased
3 out in 1975.

4 10. The asbestos gaskets manufactured by its
5 suppliers in the Crosby rupture discs were not altered
6 before the product line was sold in 1987.

7 9 -- 11. Excuse me. The asbestos-braided packing
8 manufactured by its suppliers in the Crosby IPS Series
9 angle relief valves was not altered when the valves
10 were manufactured during 1933.

11 12. The asbestos gaskets and packing manufactured
12 by its suppliers in the Crosby HPV and Crosby HPV-ST
13 Series valves were removed in 1989 because viable
14 asbestos-free substitutes became available.

15 13. To the best of Crosby's knowledge, the ebony
16 asbestos manufactured by its suppliers in the Crosby
17 Gage boards were not altered or removed before the
18 products were discontinued.

19 14. The copper asbestos gaskets manufactured by
20 its suppliers in Crosby JJ, JJE, JJB, and JJA series
21 valves were replaced by Akro-Metal in 1939.

22 15. The copper asbestos gaskets manufactured by
23 its suppliers in Crosby JM and JMA Series valves were
24 replaced by Akro-Metal in 1937.

25 16. The copper asbestos gaskets manufactured by

1 its suppliers in Crosby JW Series valves were replaced
2 by Akro-Metal in 1938.

3 17. The asbestos packing manufactured by its
4 suppliers incorporated into some of the Crosby JJC,
5 JJBC, and JJAC Series valves used for speciality
6 applications were not altered or removed before the
7 products were phased out in 1950.

8 Q Interrogatory Number 24. For the period 1930 to
9 the present, do you have any written memoranda,
10 specifications, or other written materials of any kind
11 or character exist relating to the testing of health
12 effects of products identified in Interrogatory 15
13 above. If so, please describe with sufficient
14 particularity to satisfy the requirements of a subpoena
15 duces tecum.

16 A No.

17 Q Number 27. Have you at any time published and/or
18 distributed any brochures, sales, literature,
19 pamphlets, or other written materials aside from any
20 caution labels on containers of any kind or character
21 that contain any warnings, cautions, caveats, or
22 directions concerning the possibilities of injury
23 resulting from the use of the products listed in
24 Interrogatory 15 above?

25 A Crosby did provide general product use warning

1 materials with its valves but none related to asbestos.

2 Q Interrogatory Number 28. From 1930 until the
3 present, did the asbestos products manufactured or
4 distributed by you contain any warnings, cautions,
5 caveats, or other statements on the product or its
6 packaging?

7 A Crosby did not manufacture or distribute
8 asbestos-containing products. Most of its valves
9 contained no asbestos in any form. It manufactured
10 valves, some of which may have incorporated component
11 parts manufactured by its suppliers that may have
12 contained encapsulated chrysotile asbestos for a period
13 of years.

14 Further answering, Crosby states it did provide
15 general product use warning materials with its valves
16 but none related to asbestos.

17 Q Interrogatory Number 30. When did you first
18 receive notice that any person claimed injury as a
19 result of exposure to asbestos or asbestos-containing
20 products manufactured and/or sold by you?

21 A Crosby did not manufacture or distribute
22 asbestos-containing products. Most of its valves
23 contained no asbestos in any form. It manufactured
24 valves, some of which may have incorporated component
25 parts manufactured by its suppliers that may have

1 contained encapsulated chrysotile asbestos for a period
2 of years.

3 Without waiver of said objections, Crosby states
4 to the best of its knowledge it first received notice
5 of an alleged asbestos-related injury related to its
6 valves in 1993.

7 MS. FARRISE: "And." You said "of the."

8 THE WITNESS: And?

9 Q Interrogatory Number 31. With respect to the
10 claim described in Interrogatory Number 30, please
11 state the name and address of the claimant, the date of
12 the notice of claim, a description of the claim, i.e.,
13 workers' compensation, products liability, et cetera,
14 the nature of the injury allegedly sustained, the name
15 and address of the attorney who represented the
16 individual making such claim, the style and court
17 reporter of the claim, if any, and the resolution of
18 the claim.

19 A Crosby states its first claim in 1993 was a
20 third-party product liability complaint claiming injury
21 from alleged exposure to asbestos in Crosby valves.
22 The plaintiff was Oscar R. Bird, Jr. The case number
23 was 93 CV 13224, and the complaint was filed by the
24 Jaques Admiralty Law Firm in Ohio. The case was
25 administratively dismissed.

1 Q Interrogatory Number 34. Please describe in
2 detail the type of packages in which you have sold
3 asbestos material, listing the dates each type of
4 package was used, a physical description thereof, and a
5 description of any printed material or trademark that
6 appeared thereon.

7 A Crosby did not manufacture or sell
8 asbestos-containing products. Most of its valves
9 contained no asbestos in any form. It manufactured
10 various types of safety, safety relief, relief, and
11 other such valves, only some of which incorporated
12 gaskets and packing manufactured by its suppliers that
13 in part may have contained encapsulated chrysotile
14 asbestos for a period of years.

15 Further answering, Crosby states that its valves
16 were packaged in cardboard boxes, wooden boxes, or flat
17 pallets with the name Crosby in black lettering on the
18 side of the box.

19 Q Interrogatory Number 35 -- not 35. Interrogatory
20 Number 38. If you have discontinued manufacturing
21 and/or selling any asbestos products, please state the
22 reasons or reasons therefor.

23 A Crosby did not manufacture or sell
24 asbestos-containing products. Most of its valves
25 contained no asbestos in any form. It manufactured

1 various types of safety, safety relief, relief, and
2 other such valves, only some of which incorporated
3 gaskets and packing manufactured by its suppliers that
4 in part may have contained encapsulated chrysotile
5 asbestos for a period of years.

6 Further answering, Crosby states that it converted
7 to using nonasbestos-containing component parts because
8 viable substitutes became available.

9 Q Interrogatory Number 44. State the names and
10 addresses of your chief medical officers from 1930
11 until the present time, listing the periods of time
12 each medical officer was employed by you and in what
13 capacity.

14 A Crosby had no chief medical officer in the time
15 period specified.

16 Q Number 47. Please state the names and addresses
17 of all physicians who were employed, retained, or
18 otherwise engaged by you at any of your facilities from
19 the year 1930 until the present time for the purposes
20 of evaluating, diagnosing, or treating pulmonary
21 complaints or problems in the past, present, or
22 prospective employees.

23 A Crosby did not employ physicians at its facilities
24 to treat pulmonary complaints or problems during the
25 time period specified.

1 Q Number 48. Please state the names and address of
2 all persons employed by you from 1930 through
3 January 1, 1978, who functioned as industrial
4 hygienist. As contemplated by these interrogatories,
5 an industrial hygienist is one that performs
6 engineering or health studies to identify and evaluate
7 potential occupational health hazards and suggest
8 methods of dealing with same.

9 With respect to each person employed by you as an
10 industrial hygienist, please state the facility or
11 office to which each was assigned and his or her
12 complete and precise duties and responsibilities.

13 A Crosby did not employ industrial hygienists during
14 the time period specified.

15 Q Number 50. Please state the names of trade
16 association periodicals to which you subscribed from
17 1928 to January 1, 1978. State whether or not during
18 said period you had any knowledge of any articles being
19 printed in industry trade journals, essays, memoranda,
20 and other similar sources pertaining to the hazardous
21 potential of asbestos, and please further state which
22 of such articles were received by you.

23 A Crosby was a member of the National Safety
24 Council, AMERICAN Boilers Manufacturers Association,
25 Valve Manufacturers Association, American Petroleum

1 Institute, and Chlorine Institute.

2 Further answering, Crosby may have received
3 publications from these organizations but has no
4 records of the publications it received. To the best
5 of Crosby's knowledge, it never received any materials
6 from any of the listed organizations related to
7 asbestos during the time period specified.

8 Q Number 53. Please state the amounts you have
9 spent or contributed annually from 1930 until
10 January 1, 1978, for research specifically directed to
11 the relationship, if any, between exposure to
12 asbestos-containing products and mesothelioma,
13 asbestosis, lung cancer, or any other pulmonary
14 disease.

15 A None.

16 Q Number 54. Please state the amount you have
17 annually contributed through January 1, 1978, to any
18 independent medical research group or groups conducting
19 research into the relationship, if any, between
20 exposures of those employees who work with
21 asbestos-containing products to asbestos and any
22 pulmonary disease.

23 A None.

24 Q Number 56. Have you had a department, division,
25 or section devoted to scientific and/or medical

1 research during the period from 1930 until January 1,
2 1978? If so, please state its title and when it was
3 first formed.

4 A Crosby did have a product research and development
5 department during the specified time period, but it did
6 not conduct medical research.

7 Q Number 57. Please state the scientific or medical
8 periodicals to which you, your medical department, or
9 industrial hygiene division subscribed during the
10 period from 1930 and 1964 specifying the date such
11 subscriptions were begun.

12 A None.

13 Q Number 64. State the name of all persons who have
14 acted in the capacity of medical librarian for you from
15 1930 to January 1, 1978; give their current address,
16 telephone number, and current position with the
17 company.

18 A Crosby did not have a medical librarian during the
19 time period specified.

20 Q Number 67. Please identify all booklets, manuals,
21 journals, and all publications directed from you prior
22 to January 1, 1980 to customers and users of all
23 asbestos-containing products and the dates said
24 information was forwarded regarding the proper use and
25 application of your asbestos-containing products.

1 A Crosby did not manufacture or sell
2 asbestos-containing products. Most of its valves
3 contained no asbestos in any form. It manufactured
4 various types of safety, safety relief, relief, and
5 other such valves, only some of which incorporated
6 gaskets and packing manufactured by its suppliers that
7 in part may have contained encapsulated chrysotile
8 asbestos for a period of years.

9 Further answering, Crosby states that it provided
10 product brochures and manuals to its customers for all
11 of its valves identified in Interrogatory 15.

12 Q Number 70. State the date and the source from
13 which you received your first notice and awareness of
14 TLVs pertaining to the concentration of airborne
15 asbestos fibers.

16 A Crosby states it is impossible to state the
17 collective knowledge of all of its employees. Further,
18 defendant states it has no knowledge of TLVs regarding
19 asbestos other than what was learned from its attorneys
20 and experts through litigation.

21 Q Number 71. Between 1930 and 1978 did you hear
22 from any sources of an alleged association between
23 asbestos exposure and the development of cancer,
24 asbestosis, and pulmonary disease?

25 A Crosby first became aware generally of an

1 association between significant and prolonged asbestos
2 exposure to certain types of asbestos and disease
3 sometime in the early '70s through OSHA standards set
4 forth in the Code of Federal Regulations regarding
5 asbestos. Crosby is not aware of and denies exposure
6 to its products can result in asbestos-related disease.

7 Q Number 72. State when your knowledge as to the
8 alleged association between the inhalation of asbestos
9 fibers and contraction of cancer and asbestosis was
10 first acquired and state the source of that
11 information.

12 A Crosby first became aware generally of an
13 association between significant and prolonged asbestos
14 exposure to certain types of asbestos and disease
15 sometime in the early '70s through OSHA standards set
16 forth in the Code of Federal Regulations regarding
17 asbestos. Crosby is not aware of and denies exposure
18 to its products can result in asbestos-related disease.

19 Further answering, Crosby is unable to state the
20 collective knowledge of all of its employees.

21 Q Number 74. Please state the date when, if ever,
22 you first notified your employees working in your
23 manufacturing plants and factories as to the need to
24 wear and use respirators.

25 A Crosby did not make any such requirements of its

1 employees regarding their valves.

2 Q Number 76. Last one. Have you ever published
3 bulletins warning your employees concerning the hazards
4 of inhaling asbestos and coming into contact with your
5 asbestos-containing products? If so, please describe
6 sufficiently for purposes of a notice to produce all
7 such bulletins.

8 A Crosby did not manufacture or sell
9 asbestos-containing products. Most of its valves
10 contained no asbestos in any form. It manufactured
11 various types of safety, safety relief, relief, and
12 other such valves, only some of which incorporated
13 gaskets and packing manufactured by its suppliers that
14 in part may have contained encapsulated chrysotile
15 asbestos for a period of years.

16 Further answering, Crosby states its products did
17 not emit physiologically respirable asbestos fibers;
18 therefore, no such warning bulletins were published or
19 required.

20 Q Please read the verification.

21 A Verification. I, Robert Martin, state under the
22 penalties of perjury that I am the former power
23 products manager for Crosby Valve, Incorporated, and I
24 am authorized by FMC on behalf of its former subsidiary
25 Crosby Valve, Incorporated, to verify the discovery

1 responses in the above-entitled and numbered cause.

2 I have read the above and foregoing defendant's
3 responses to plaintiffs' interrogatories and have
4 knowledge of the facts contained therein and same are
5 true in substance and in fact to the best of my belief.

6 I certify that the statements set forth in this
7 instrument are true and correct except as to matters
8 therein stated to be on information and belief. And as
9 to such matters, I certify as aforesaid that I believe
10 the same to be true. I declare under the pains and
11 penalties of perjury under the laws of the State of
12 California that the foregoing is true and correct.

13 Signed Robert J. Martin. Executed on April 20,
14 2012, at Southport, North Carolina.

15 Q Thank you.

16 THE COURT: Ms. McVey.

17 MS. McVEY: Your Honor, it's up to the court. I
18 don't know if people need a break.

19 We have left to publish a few more documents. We
20 can do that in our remaining time or break.

21 THE COURT: What have you got?

22 MS. McVEY: More of the documents we did this
23 morning.

24 MS. FARRISE: Invoices and purchase orders from
25 the Duke Power Company between the defendants here.

1 THE COURT: All right. Let's take a ten-minute
2 break and be back.

3 (WHEREUPON, the jury exited open court at
4 4:32 p.m.)

5 (WHEREUPON, a recess was taken from 4:32 p.m. to
6 4:50 p.m.)

7 (WHEREUPON, the jury entered open court at
8 4:50 p.m.)

9 THE COURT: Ladies and gentlemen of the jury,
10 thank you so much for your extreme patience with what
11 is, as I explained to you when I charged you to begin
12 with, sometimes it's not the high drama you expect but
13 a very laborious process of trying to put in, in the
14 proper way, according to the rules, the material that
15 you will ultimately consider about the case.

16 We are going to continue on for 20 more minutes to
17 put in some other documents, and then we're going to
18 let you go. If you can -- unless, and I want to be
19 sure that I'm not intruding on something where somebody
20 has got to pick up something or something else. If
21 that's a problem for anybody on this jury, all you have
22 to do is raise your hand and we don't do that.

23 Thank you for your very, very extreme patience.

24 All right. You may proceed.

25 MS. FARRISE: Thank you, Your Honor.

1 The Plaintiffs offer Exhibit 6364.4, a Duke
2 document.

3 THE COURT: Now, you are again using some numbers
4 that are Bates numbers, and we're going to need exhibit
5 numbers.

6 MS. FARRISE: This is the exhibit number with a
7 yellow exhibit sticker.

8 THE COURT: All right. Very good.

9 THE COURT: Say the number again.

10 MS. FARRISE: Sure. I will, Your Honor. It's
11 6364.4.

12 (WHEREUPON, Plaintiffs' Exhibit Number 6364.4 was
13 admitted into evidence.)

14 MS. FARRISE: And it is a purchase order dated
15 August 16, 1982, Duke Power Company, McGuire Nuclear
16 Station, Cornelius, North Carolina, to the Crosby Valve
17 & Gage Company for various pieces of equipment.

18 The only one I want to -- the document will be in
19 evidence, so -- but there is Items 5 and 6 pertain to
20 Series 600 Sage safety relief valve, model blah, blah,
21 blah, blah, blah. Okay. We want to offer into
22 evidence -- the whole document is going to be in.

23 MR. BOUCH: What's the date on that?

24 MS. FARRISE: The date? August 16, 1982.

25 MR. BOUCH: Thank you.

1 MS. FARRISE: Then there was Exhibit 6359, Your
2 Honor. These are documents from defendant Crosby Valve
3 Company. There are subpages down here that say Crosby
4 Duke, so I'm going to refer to 6359-whatever it happens
5 to be.

6 This is a, well, let's see, Crosby --

7 MR. REID: Installation book.

8 MS. FARRISE: Thank you. Crosby safety relief
9 valves installed at Duke Power Company, Oconee Unit
10 Number 1. And that's at Duke 004. Page 2 is from the
11 Crosby installation book. Utility, Duke Power.
12 Station, Oconee Unit Number 1. Valve location, main
13 steam. Quantity, 16, and then there is a style number.

14 Then there is Crosby installation book, I guess
15 that's what we're calling it. Crosby safety relief
16 valves installed at Duke Power Company, Oconee Unit
17 Number 2. And at Page 007 of this exhibit, the
18 equipment list from Crosby or valve list for Oconee
19 Unit Number 2 is the valve location, main steam.
20 Quantity, 16. Valve location, reheater turbine.
21 Quantity, six.

22 There is from the same exhibit, Page 0015, another
23 Crosby installation book. Crosby safety relief valves
24 installed at Duke Power, McGuire Unit Number 2. Page
25 0016, Crosby equipment list at McGuire, Unit Number 2.

1 Valve location, pressurizer. Quantity, three. Valve
2 location, main steam. Quantity, 20. Valve location,
3 reheater turbine. Quantity, six.

4 This is part of the same packet. It's 0018, a
5 Crosby drawing which we're going to talk about later
6 with witnesses, but for now we have a drawing for Duke
7 Power Company, McGuire Units 1 and 2, prepared by the
8 Crosby Valve Company of Wrentham, Massachusetts, for a
9 nozzle type, safety valve. Weight, 1,000 pounds
10 approximately, and other information which I'll leave
11 for the witness. Okay.

12 MR. BOUCH: Do we have a date for that, ma'am?

13 MS. FARRISE: The document produced by Crosby
14 Bates Number 0018.

15 MR. BOUCH: Do you have the date of the document?

16 THE COURT: It's all a part of 6359, as I
17 understand it.

18 MS. FARRISE: No, I don't. And I have less than
19 20 minutes now.

20 THE COURT: Look on the very front of it. He
21 wants the exhibit number.

22 MS. FARRISE: No, he wants the date of the drawing
23 and I couldn't readily find that.

24 THE COURT: It's all part of the exhibit that
25 encompasses 6539; is that correct?

1 MS. FARRISE: Yes. And documents produced by
2 Crosby Valve Company, his client.

3 Next is the same set, is Crosby Duke 0024. Again,
4 it's a Crosby safety valve and relief valves installed
5 at Duke Power Company, Catawba Unit Number 1. Crosby
6 Valve list for Catawba Unit Number 1. Valve location,
7 reheater turbine. Quantity, six. Auxiliary valves.
8 Quantity, four and two. Valve location, Delaval
9 turbine. Quantity, six.

10 This is a document that there is a number in this
11 exhibit of Page 0031. It is a drawing of a valve for
12 the Duke Power Company, Catawba Nuclear Station
13 prepared by Crosby Valve & Gage Company, Wrentham,
14 Massachusetts. And there is a date here. Crosby
15 prepared this drawing on 1978. Weight, 225 pounds.
16 And, again, we'll talk more about this valve and this
17 drawing later.

18 Your Honor, next, plaintiffs would offer into
19 evidence -- and I have a copy -- the Fisher Controls
20 control valve handbook. And it's going to be labeled
21 Exhibit 947. So it's the Fisher Controls Company
22 control valve handbook. This version, and that's why
23 we have multiple books, was put out by Fisher Controls
24 in 1965 or is copyrighted in 1965.

25 (WHEREUPON, Plaintiffs' Exhibit Number 947 was

1 admitted into evidence.)

2 MS. FARRISE: At page 33, there is a chart
3 entitled "Typical Construction Materials." Valve body,
4 bonnet and bottom flange, cast iron, carbon steel,
5 carbon molybdenum steel, chromium steel, stainless
6 steel and other allies. Body gaskets, asbestos.

7 For the 316SS. 316SS, hard-faced body gasket,
8 asbestos. 316SS hard-faced seats, body, asbestos.
9 Monel body gaskets, asbestos. Hastelloy B body
10 gaskets, asbestos. Durimet20 body gaskets, asbestos,
11 440CSS body gaskets, asbestos, which we will link up
12 with other evidence.

13 Page 26 of the book put out by Fisher Controls,
14 the control valve handbook, Page 26 of that exhibit
15 under the heading "Valve Packing," quote, "Most control
16 valves use packing boxes with the packing retained and
17 adjusted by a flange and stud bolts. There are several
18 packing materials that can be used depending on the
19 service, namely Teflon V-ring, Teflon-impregnated,
20 graphited asbestos, and semi-metallic." And then there
21 are descriptions of the Teflon-impregnated packing that
22 Fisher Control recommends and uses and the
23 graphited-asbestos packing that the Fisher Control
24 handbook --

25 MR. REID: Your Honor, I object to any

1 characterization. If she wants to read it, fine.

2 THE COURT: I agree with that, Ms. Farrise.

3 MS. FARRISE: Okay.

4 THE COURT: Sustained.

5 MS. FARRISE: Thank you. I'll read what it says.

6 Graphited asbestos. This packing material is
7 generally composed of asbestos fibers, lead, wool,
8 flake graphite, and a small amount of neoprene binder.
9 It is molded in solid rings of various heights and is
10 also available in braided-rope form for maintenance
11 purposes.

12 Graphited-asbestos packing can be adjusted to stop
13 leakage. With this type of packing, more friction is
14 present than with the Teflon packing lubricant.

15 And with that, Your Honor, we're also going to
16 offer the 1977 version, Plaintiffs' Exhibit 948, of the
17 Fisher valve handbook, second edition, control valve.
18 And we have a copy.

19 (WHEREUPON, Plaintiffs' Exhibit Number 948 was
20 admitted into evidence.)

21 MR. McLEOD: Your Honor, we would renew our
22 objection to foundation.

23 THE COURT: What's that?

24 MR. McLEOD: We would renew our objection to
25 foundation. This isn't part of the documents.

1 THE COURT: You're protected.

2 MS. FARRISE: Second edition, 1977, Fisher
3 Controls International, Page 28, I guess it is. Under
4 the packing section, TFE-impregnated asbestos composed
5 of braided asbestos fibers impregnated with TFE molded
6 into rings with square cross-sections. Suggested
7 service temperature limits, minus 100 to 450 degrees,
8 minus 73 to 232 degrees Celsius. Graphited asbestos.
9 Formed ring packing composed of asbestos fiber, lead,
10 wool, flake graphite, metal particles and a small
11 amount of neoprene as a binder. Packing box
12 lubrication -- I'm sorry. I'll just leave that.

13 And so, Your Honor, we'll offer both of these
14 books into evidence. I had a little publishing. I
15 think I have three minutes to spare. And with that, I
16 think we're done with our presentation for today.

17 THE COURT: Very good. All right.

18 All right. Now, those are all admitted on the
19 record along with everything else we have been reading
20 today. Those are all admitted exhibits.

21 Anything else we need to cover with the jury
22 before I dismiss the jury?

23 MS. FARRISE: Not unless you want more documents,
24 Your Honor.

25 THE COURT: All right. I'm going to allow you to

1 adjourn for the evening. Please be back about 9:15
2 with the concept that we can start at 9:30. And thank
3 you again so much for a long day, but a day that's
4 necessary to get this case in front of you completely.

5 Thank you and have a wonderful night.

6 (WHEREUPON, the jury exited open court at
7 5:07 p.m.)

8 THE COURT: As a matter of housekeeping, I want to
9 be sure we have covered the substance of objections and
10 rulings so all are protected.

11 As I understand it, the Fisher Control documents
12 or manuals that came in are a new group of documents
13 beyond the documents we had talked about this morning.
14 And the objection that Mr. McLeod and Mr. Reid have
15 made is the same as the objection this morning about
16 the what I ruled were ancient documents and
17 self-authenticating documents.

18 And, again, the objection is that no proper
19 foundation has been laid. We have admitted those
20 documents over your objection, and your objection is
21 fully protected and noted. I just want to be sure
22 that's noted.

23 MR. McLEOD: Thank you, Your Honor.

24 THE COURT: Anything else that needs to be said or
25 you want to say about that?

1 MR. REID: Your Honor, about that --

2 MR. McLEOD: Additionally, the part about the no
3 witness to sponsor it.

4 THE COURT: Yes. That is something that was a
5 similar objection to the one you made this morning.

6 MR. McLEOD: Yes, Your Honor.

7 THE COURT: And that remains your objection to
8 this additional group of materials, the Fisher Controls
9 manuals.

10 MR. McLEOD: Thank you.

11 THE COURT: Okay. Anything else, Mr. Reid?

12 MR. REID: Judge, just as a housekeeping matter,
13 it's a lot of paper here. It's difficult to track.
14 Every case I've ever tried, counsel make extra copies,
15 hand them to the court, other counsel. The court's
16 clerk has one. We know where the exhibits are. We
17 have access to them. They are kind enough to give us
18 things by e-mail. They don't use them all. We don't
19 copy them all.

20 I just think I'd like the court to suggest to the
21 parties that we both bring copies of what we're going
22 to use and make it available to the clerk and it be
23 kept in one place once they're admitted so that we are
24 organized.

25 THE COURT: I think that's a handier way to do it,

1 and if it can be done that way, I request both sides to
2 do it.

3 MS. FARRISE: Yes, Your Honor. But I do have to
4 say for the record, because yesterday there was a
5 suggestion that they didn't have the documents when we
6 wanted to publish them, so yesterday we handed a copy
7 of each one that we had previously e-mailed that they
8 didn't print out. So this notion, especially as to
9 these invoices today, we handed a paper copy of every
10 single one of them yesterday. I do agree we can go
11 more orderly, I don't have any issue with that, but the
12 suggestion that we're not giving them documents --

13 THE COURT: Don't worry. I'm not drawing any
14 negative conclusions on either side.

15 MR. McLEOD: Let me clarify what your problem is.
16 We have just been through a day of trial, and we have
17 yet to have one exhibit with a sticker on it that we
18 can name.

19 THE COURT: Mr. McLeod, I am not going to go
20 through that again. We have got yellow stickies on
21 everything that's in evidence now. It's got an exhibit
22 number on it, as I understand.

23 Am I right about that?

24 THE REPORTER: Yes.

25 MR. McLEOD: I think that's right. We've just got

1 to have copies.

2 THE COURT: I agree with you, the way it was done
3 initially is not ideal, but we have solved that
4 problem. Now, so, on a going-forward basis, that's the
5 way we're going to do it, and, hopefully, we'll have
6 copies and so forth and so on so things will proceed in
7 an orderly way.

8 But for the present moment in time, although it
9 might have been a little uneven start, I do believe we
10 have got everything marked and we have got everything
11 where it should be which is in the possession of the
12 court reporter, and I think that's where we are.

13 Madam Court Reporter.

14 THE COURT REPORTER: I'm missing one exhibit from
15 that side and that is all.

16 THE COURT: Which one is it?

17 MR. REID: 137. We'll bring a copy tomorrow.

18 THE COURT: Very good.

19 MR. REID: Just looking for some direction. We
20 have got some blue stickers that we print. Do you want
21 us to put the court's yellow stickers on our exhibits
22 or are our blue ones sufficient for the court? I just
23 want to make sure I'm doing what you want us to do.

24 THE COURT: Let's ask the court reporter.

25 THE REPORTER: The blue ones are fine since you

1 are defendant.

2 THE COURT: So what I'm hearing you say is the
3 blue ones are good for them?

4 THE REPORTER: Yes.

5 THE COURT: That's also good. So the blue will be
6 the defendant, the yellow will be the plaintiffs, and
7 you mark yours as you wish.

8 MR. REID: Thank you.

9 THE COURT: Anything else? All rocky starts to
10 the contrary notwithstanding, thank you again for your
11 professionalism and for your decency to each other
12 today. This is a lot of paper and a lot of moving
13 parts, and I admire you all and I respect you all, and
14 I thank you for your very professional handling of this
15 matter today.

16 Have a good evening and I'll see you here tomorrow
17 at 8:30.

18 (WHEREUPON, proceedings adjourned at 5:13 p.m.)
19
20
21
22
23
24
25

1 State of South Carolina
2 County of Spartanburg
3

In the Court of Common Pleas

4 Beverly Dale Jolly and
5 Brenda Rice Jolly,

6 Plaintiffs,

7 -vs-

8 Crosby Valve, LLC and
9 Fisher Controls
International, LLC,

10 Defendants.

2016-CP-42-1593

July 26, 2017

Volume 3 of 9
Pages 437 - 707

Transcript of Record

11

12

13 B E F O R E:

14 The Honorable Jean Hoefer Toal, Judge;
15 and a jury.

16 A P P E A R A N C E S:

17 Theile McVey, Esquire
Kassel McVey
18 Jonathan M. Holder, Esquire
Dean Omar Branham
19 Simona A. Farrise, Esquire
Farrise Law Firm
20 Attorneys for Plaintiffs

21 Timothy W. Bouch, Esquire
Yancey A. McLeod, Esquire
22 Leath, Bouch & Seekings
Philip C. Reid, Esquire
23 Von Briesen & Roper
Attorneys for Defendants

24

25

Diane L. Marcengill, RPR, CRR
Circuit Court Reporter

I N D E XWitnessesPage

ARTHUR L. FRANK, M.D., Ph.D.	
Direct Examination By Ms. Farrise:	458
Cross-Examination By Mr. Bouch	570
Redirect Examination By Ms. Farrise	631
Recross-Examination By Mr. Bouch	642
DAVID TAYLOR (via video and read deposition)	
Direct Examination	646
Cross-Examination	673

E x h i b i t s

For the Plaintiffs:

Marked	Description	I.D.	Admitted
936.2	Affidavit of Dr. Frank	556	559
936.1	CV of Dr. Frank		459
936.4	Hand-drawn charts of Dr. Frank	561	561

For the Defendants:

Marked	Description	I.D.	Admitted
Crosby 146	Photo - 48 Insulation in the foreground		587
Crosby 147	Photo - pipe insulator servicemen		587
Crosby 148	Photo - pipe system		587
Crosby 149	Photo - pipe insulator servicemen		587
Crosby 153	Photo - microscopic image of asbestos body		576
Crosby 154	Photo - microscopic image of asbestos body		576

1 (WHEREUPON, court convened with all parties
2 present and the following proceedings were had
3 commencing at 8:35 a.m.)

4 THE COURT: The first order of business would be
5 to go over objections. We have looked at the Taylor
6 deposition. Thank you for both sides for sending that
7 to us, and I am certainly willing to listen to what
8 anybody has to say, but I see nothing in any of what
9 has been identified by the defendant or by the
10 plaintiff as material to be used that I would not
11 admit.

12 So you all kind of zoom in on what you think are
13 the ones I really ought to take a look at.

14 MR. McLEOD: Your Honor, I can be real quick on
15 that.

16 THE COURT: Sure.

17 MR. McLEOD: If I may go first, Mr. Holder.

18 Actually, the one that I'm going to point the
19 court to was not -- was an oversight, I think, on our
20 part, but on Page 153, at Lines 11 through 14,
21 Mr. Taylor is asked: If he had known, "When you
22 started in '72 that asbestos could cause cancer like
23 the one you have today, when would you have started
24 wearing a respirator?" And we object to the jury
25 knowing Mr. Taylor has cancer.

1 THE COURT: All right. And what would be the
2 reason for that?

3 MR. McLEOD: Highly prejudicial versus probative.
4 It doesn't prove anything that they need in their case.
5 It infers -- it causes us to have to try two cases
6 within a case. I mean, the trial is not about
7 Mr. Taylor's disease. It is about Mr. Jolly's disease.

8 And this information like this is hugely
9 prejudicial to us, given the purpose of Mr. Taylor's
10 deposition is to talk about what he saw at these
11 facilities, what he knows about Mr. Jolly. It has
12 nothing to do with his cancer. And the jury hearing
13 that is a severe blow to prejudicialize our case.

14 THE COURT: I certainly want to listen to
15 Mr. Holder. Let me ask you a question, Mr. McLeod, to
16 begin with, and correct me if I'm wrong, but my
17 recollection is that we did spend some time with
18 Mr. Jolly yesterday discussing warnings that were
19 posted around the Duke facilities where he worked and
20 where Mr. Taylor worked, and we spent some time talking
21 to him about whether warnings were put upon the valves
22 in question. And we spent some time talking about the
23 whole notion of what he and his colleagues knew about
24 the dust from these flange and valve servicing issues.
25 And as I understand it, this piece of testimony, it

1 talks about what he would have done if he had
2 understood the danger, which is one of the things that
3 was explored.

4 Now, that speaks to relevance. I understand that
5 your biggest argument is that it forces you to try a
6 case within a case, it's highly prejudicial, they can
7 show this for other means, et cetera. Is that a fair
8 summary of what I'm looking at right now?

9 MR. McLEOD: Your Honor, our only objection is to
10 the reference that he has cancer. I have no problem
11 with him talking about what he would -- although I
12 still think it's not relevant -- what he would have
13 done had he known. I think that's an issue for
14 Mr. Jolly.

15 But I will tell the court that I spent a lot of
16 time yesterday going through this and withdrew a
17 tremendous amount of our objections that relate to
18 stuff that you're talking about.

19 What we object to is the reference that Mr. Taylor
20 has cancer, and it just happens to be embedded in this
21 question.

22 THE COURT: So if we looked at this testimony and
23 said, "If you had known when you started in 1972 that
24 asbestos could cause cancer," and you would like to
25 stop there and strike like, "The one you have today,"

1 and say, "Would you have started wearing a respirator?"
2 And the witness says, "As soon as possible." And, "How
3 does that make you feel knowing that you were
4 unprotected for all those years?" And the witness,
5 "Pretty bad." Are you wanting to redact the "like the
6 one you have today"?

7 MR. McLEOD: Yes, ma'am.

8 THE COURT: Very good.

9 THE COURT: I understand.

10 MR. McLEOD: That's exactly it.

11 THE COURT: And I am sympathetic with striking
12 that.

13 Mr. Holder.

14 MR. HOLDER: I believe -- first off, as Mr. McLeod
15 let you know, they brought this to our attention this
16 morning, so I didn't have a lot of time to analyze it,
17 but we believe that you have to take Mr. Taylor's
18 testimony as a whole. And we believe that because of
19 the allegations made in this case -- and because of the
20 work and similar work that he did and the reason and
21 purpose of his deposition -- that it's relevant to why
22 he, and especially within that question, why he would
23 have wanted to do something as soon as possible had
24 there been warnings or had he seen a warning.

25 THE COURT: I understand your position.

1 I will grant the motion to redact the information
2 about Mr. Taylor having cancer, specifically the
3 language "like the one you have today." So that's
4 stricken. All right? Anything else with respect to
5 the testimony of Mr. Taylor?

6 MR. McLEOD: I understand the court's position, if
7 the court has already made a decision on the rest of
8 the objections.

9 THE COURT: I want you to put down any objections
10 you feel like you have got to preserve about that, so I
11 don't want to be cutting you off.

12 It just looks to me like the rest of it -- Taylor
13 began his work slightly before Mr. Jolly with Duke.
14 But he's there for the period of time that Jolly is
15 there and in these same constellation of plants that
16 we've been talking about.

17 And so it seems to me that this is information,
18 some of which helps you and some of which helps the
19 other side, but is information that's pertinent to the
20 conditions under which Mr. Jolly worked at the various
21 plants at Duke. And that is my reason, that is, a
22 relevance reason. I think we have peeled away the
23 prejudicial piece, and that is why I'm admitting it.

24 Will that supply you with everything you need or
25 is there anything -- you better check with Mr. Bogan

1 before you drop the baton.

2 MR. McLEOD: Your Honor, the only thing that comes
3 to mind I think that really struck me was the
4 reference, he was handed a photograph of a valve and --

5 THE COURT: Yes. And he says -- he explains that
6 it's an example of the kind of Crosby valves that were
7 used.

8 MR. McLEOD: Well, he just says valves.

9 THE COURT: What does he say, flange or something?

10 MR. McLEOD: He doesn't say -- he doesn't talk
11 about Crosby specifically.

12 THE COURT: Right. He talks about the valves.
13 You're right. He does not identify the maker of the
14 valves. I agree with that. Yet he talks about: This
15 is the type of flange and valve and so forth I worked
16 with.

17 I think that is appropriate demonstrative evidence
18 with respect to his testimony, and I don't see any
19 prejudice with it. So, again, that would be my
20 position.

21 MR. McLEOD: Thank you, Your Honor.

22 MR. HOLDER: Chief Justice Toal, just a couple of
23 objections near the end.

24 THE COURT: Is this on what they want to include?

25 MR. HOLDER: Yes. This was what I addressed to

1 the court yesterday, about the insulation testimony
2 where it was elicited that David Taylor was around
3 insulators between the 1972 and '74 era, almost a
4 decade before he had ever met Mr. Jolly, and not in the
5 same plant where he met Mr. Jolly. So we believe that
6 due to it not being applicable to Mr. Jolly, that it
7 would be prejudicial and confusing and misleading to
8 the jury.

9 THE COURT: Well, of course, I will listen to
10 Mr. McLeod, but I just will tell you my reaction there
11 is that it's admissible, and here's why.

12 First of all, my recollection is that Mr. Jolly
13 himself talked about the insulation in the pipes at one
14 point in time in his testimony. And that was from his
15 own direct experience. I realize that ya'll are trying
16 to draw a tight line between the release of friable
17 material from the insulation and the release of
18 material in the grinding and servicing of the valves,
19 but that's a legitimate, to me, area to be explored by
20 defendant if they wish to because their contention is
21 not that he doesn't have mesothelioma, but that it came
22 from some other source. And I think that's part of
23 what would be legitimate for them to put into evidence.

24 I know you've got some other ways that your
25 experts will distinguish all of this, but I would be

1 inclined to admit it.

2 Have you got anything else to say, Mr. McLeod?

3 MR. McLEOD: No, Your Honor, I agree.

4 THE COURT: I would admit it, Mr. Holder.

5 MR. HOLDER: Thank you, Your Honor. I would just
6 add for the record that it will be plaintiffs'
7 contention that due to the time frame and the plants
8 that Mr. Jolly was at, that that dusty -- dust from the
9 insulation would have been from asbestos-free
10 insulation, but I understand the court's ruling.

11 THE COURT: I understand. And as I say, I think
12 Mr. Jolly's testimony is at least broad enough to leave
13 some inference that he might have experienced some of
14 that material and, therefore, I think it's pertinent on
15 that grounds.

16 MR. HOLDER: The next thing is kind of a
17 procedural or housekeeping matter, I guess.

18 As you note from Mr. Jolly's depositions, he was
19 taken, a video, trial preservation first, and then they
20 had Discovery Volume 1, Discovery Volume 2, and the
21 video cross at the end of that which was Video Volume
22 2. So it was separate transcripts.

23 In this deposition, Mr. Taylor, while it had three
24 volumes, the court reporter didn't break it and
25 separate it into discovery versus video deposition. So

1 at Page 171, and by the agreement of counsel, they go
2 off the video record because the trial preservation
3 deposition is over, and then Mr. Traylor goes back on
4 to begin the discovery portion of the deposition
5 without video.

6 I say this because the video cut will end at 171.
7 After that, the testimony designated for the rest of
8 Volume 1 is basically just the portion that we talked
9 about insulators.

10 THE COURT: It will be read from the witness
11 stand?

12 MR. HOLDER: That would be my question. Is that
13 how you prefer it?

14 THE COURT: If you don't have a video, do you have
15 an audio?

16 MR. HOLDER: No.

17 THE COURT: I'll explain to the jury that
18 Mr. Taylor's testimony was taken in various segments.
19 We are now going to -- you've seen a video segment, and
20 now you're going to hear the reading of another segment
21 that was not video.

22 MR. HOLDER: Yes, Your Honor. And we would
23 request that because, you know, it's the defense doing
24 a discovery deposition and we're not asking the
25 questions, that it would be defense counsel that

1 actually does the reading and asking of the questions
2 for their designations in the discovery part because I
3 think it would seem odd with the plaintiff actually
4 asking questions of the defense counsel from the
5 transcript.

6 THE COURT: I think that's reasonable.

7 Can y'all do that?

8 MR. McLEOD: Of course.

9 MR. REID: Sure.

10 THE COURT: I think that will work fine. That
11 will make more sense to the jury.

12 MR. McLEOD: Certainly. And, again, there's also
13 Volumes 2 and 3 as well as far as -- we haven't sent
14 you those. I'm not sure what the schedule is today. I
15 thought, you know, that we were going to have time for
16 the video Volume 1 today.

17 THE COURT: I don't know how long it is, but we're
18 going to chop-chop along here, and we're going to
19 decide objections beforehand. I hope y'all will be --
20 we don't want to stop the trial because you haven't
21 done anything with objections yet.

22 And I think you see the pattern of what my rulings
23 is about these matters so that may obviate the
24 necessity for getting into nitpicking things like
25 objecting to my name is so and so, I went to high

1 school so and so.

2 MR. McLEOD: That's correct, Your Honor. I think
3 we could -- I'm not -- again, I have no control over
4 how they're running their case, but there is a lot of
5 designations from the other transcripts as well, and
6 we'll do our best to work together.

7 THE COURT: You want to start rolling through them
8 as quickly as we can. I know y'all will try to
9 accommodate that.

10 MR. McLEOD: Yes.

11 MR. HOLDER: For the discovery -- or Volume 2,
12 which is all discovery deposition, I guess a good part
13 of Volume 3, plaintiffs would request that defendants
14 could actually read that in their case-in-chief so that
15 it doesn't -- we don't have to continue to break it up
16 within plaintiffs' case-in-chief.

17 THE COURT: Is this stuff that the defendants have
18 designated to have read? Yeah. Let them read that in
19 their case-in-chief. I think that makes sense, but I'm
20 going to hear Mr. McLeod if there's any objection.

21 MR. McLEOD: I don't necessarily have an objection
22 to that. We would prefer to do it all at once, but
23 particularly --

24 THE COURT: If he were a live witness here,
25 Mr. Holder, then all of that would come in in your case

1 because what would happen is he would be upon the stand
2 for the direct, and then he would be subject to
3 cross-examination. And, quite honestly, breaking it up
4 that way, I don't know. I think they're willing to go
5 either way, and I kind of am too. But what you're
6 worried about is that they will be left with the end of
7 it will be the cross-examination and there won't be any
8 redirect. That's what's got you concerned, right?

9 MR. HOLDER: Well, and the time. But there is
10 video on the back end of the video cross of defendants.
11 And we have that video. It goes back on, I believe, at
12 five --

13 THE COURT: How long do you think all this is
14 going to take?

15 MR. HOLDER: Oh, that's the great thing is the cut
16 of the video is an hour.

17 THE COURT: How long is everything going to take
18 out of the Taylor depositions?

19 MR. HOLDER: I don't know how fast they read, but
20 that --

21 THE COURT: Let's say they read just like Jonathan
22 Holder read. I don't want to repeat that again, valve
23 this and valve that.

24 We got through 40-something pages in an hour.

25 MR. HOLDER: I would say probably an hour. I

1 mean, that's fine if they want to read today. I think
2 it will be about an hour.

3 THE COURT: Let me tell you what I would suggest
4 you do. You're going to end up with something that is,
5 in effect, your redirect, right? In the audio?

6 MR. HOLDER: Yes.

7 THE COURT: Then let's do it all at one time.
8 Let's get it out of the way. Defense will read their
9 stuff; you read your stuff. We'll have one person who
10 will play Mr. Taylor the whole time, and we'll have you
11 all read your questions and they read their questions
12 and the audio stand on its own. And I think that's the
13 way to do it is to get it all done at one time. Then
14 the jury is not chopped up with what they see with this
15 witness.

16 MR. HOLDER: Can I ask just one logistical
17 question on that? And this is trying to think ahead of
18 potential problems.

19 If we get to the end of today and we're only
20 halfway through Mr. Taylor's deposition --

21 THE COURT: I'm going to do some neck wringing if
22 that's the case. Halfway through your case or halfway
23 through Taylor?

24 MR. HOLDER: If we're halfway through the Taylor
25 deposition.

1 THE COURT: At the end of the day? I just can't
2 imagine that, Mr. Holder.

3 MR. HOLDER: Okay. I definitely can't --
4 either --

5 THE COURT: If we do, we just have to carry it
6 over and start with Mr. Taylor the next day if that
7 unfortunate occurrence would take place. It would be
8 just like a regular trial if you had them live.

9 MR. McLEOD: We will do our best to cut down, cut
10 it out.

11 THE COURT: I know you will. I know both sides
12 will do it. You made a cut at it; you will probably
13 make another cut. You can get tuned to what the
14 picture is that's being portrayed. I realize there is
15 a lot that goes into the dynamic of what you put in,
16 and let's just see how we go. But I kind of believe
17 we'll get through it today.

18 All right. It is now 9 o'clock. What else we
19 got?

20 MS. McVEY: I think we're in good shape unless
21 there's something else to argue.

22 THE COURT: We in good shape?

23 Let me ask you this. All right. We get through
24 with Taylor. Let's say we got through with Taylor
25 earlier. Don't give me this runover. Let's say we get

1 through with Taylor early. What's my jury going to be
2 doing then?

3 MS. McVEY: First this morning we have Dr. Frank
4 coming, our expert.

5 THE COURT: And Dr. Frank is going to take what?

6 MS. McVEY: I don't know. We were trying to get
7 an estimate. Our -- I mean, we will, obviously, not go
8 more than three hours on direct.

9 THE COURT: I read something that ya'll submitted
10 about Frank before. It didn't look like it might take
11 even that long.

12 MS. McVEY: Well, just -- there's lots of stuff to
13 do, but we'll see. And then Mr. Bouch understandably
14 couldn't commit to how long his cross will be, so we're
15 kind of weighing time.

16 THE COURT: Let me ask one thing about this
17 expert. Listen up here. Anything we can do beforehand
18 about any objections that might be able to be -- what
19 did we have about Frank beforehand? Or maybe that was
20 Brody that ya'll had some go-round about. Have we got
21 any issues about Frank?

22 MR. BOUCH: Well, Your Honor, it really depends on
23 what he says. He's on record of going one way to each
24 and every --

25 THE COURT: Of course you've got cross-examination

1 to take care of that and whatever motions you want to
2 make about whether the whole thing is admissible at
3 some point in time. But the basic qualifications and
4 all that kind of thing, these people are well known to
5 y'all. There's no trouble with that?

6 MR. BOUCH: No.

7 THE COURT: That's all I was asking. We had some
8 preliminary trouble with some of these witnesses about
9 whether they could testify, but this one is not one of
10 those?

11 MR. BOUCH: I can assure you, if they take three
12 hours, I will not take three hours on cross.

13 THE COURT: All right. Well, Josh and I will
14 retire. The jury comes in at 9:15.

15 (WHEREUPON, a recess was taken from 8:55 a.m. to
16 9:31 a.m.)

17 THE COURT: All right. If all are in place and
18 ready, please get us the jury.

19 (WHEREUPON, the jury entered open court at
20 9:32 a.m.)

21 THE COURT: Good morning, ladies and gentlemen.
22 Please be seated. Be patient with me for one minute.
23 I think I might have forgotten something.

24 The plaintiff will continue with the case, the
25 plaintiffs' case this morning. And I'm informed that

1 the first witness may be an expert witness; is that
2 correct, Ms. Farrise?

3 MS. FARRISE: Yes, Your Honor.

4 THE COURT: And I just sent my law clerk to get me
5 my trial notebook so I can say a little something to
6 you about expert witnesses.

7 But experts, just to kind of set the stage for
8 you, are individuals who, by dint of their training,
9 education, and experience are allowed to testify and
10 actually give opinions about things as experts.

11 Now, you just use your common sense to weigh this
12 testimony and give it the weight you think it has in
13 light of all of what you hear. But you may hear an
14 expert qualified, and then I'll have to decide whether
15 they have the necessary training and education and
16 experience.

17 Most of the witnesses you will hear are very well
18 known to both sides, and we have already sorted out
19 those issues before they actually take the stand so we
20 won't have to spend much time with me deliberating.
21 They have already been regarded as experts, and they
22 will then take the stand and, of course, be subject to
23 the usual direct examination and cross-examination.

24 After that, we will have some other witnesses,
25 some of whom will appear live, some of whom will appear

1 by video, and some of whom will appear partially by
2 video and partially by read depositions. So that's
3 kind of what we're in prospect of today is various
4 witnesses for the plaintiff.

5 Plaintiffs, you may begin.

6 MS. FARRISE: Thank you, Your Honor. Since you
7 were so kind as to give some instruction about expert
8 witnesses, I anticipate, of course, this issue.
9 Hypotheticals might come up, so might you give the jury
10 an idea of what that's all about?

11 THE COURT: All right. Let me just go back and
12 say this about expert witnesses. Ordinarily, witnesses
13 testify as to facts but they're not permitted to give
14 their opinions or conclusions about things.

15 The exception is the expert witness who, by dint
16 of education and experience and training, have become
17 expert in some art or science or profession or calling,
18 and they may state their opinions if they're relevant
19 to material matters in the case and relevant to what
20 they profess is their area of expertise. And they will
21 state -- if they state an opinion, they will give their
22 reasons for that opinion.

23 You should consider an expert opinion and give it
24 such weight as you think it deserves. If you decide
25 the opinion is not based on their education and

1 experience, or if you conclude that the reasons given
2 in support of the opinion are not sound, or if you feel
3 that it's outweighed by other evidence, you can
4 disregard the opinion in whole or in part.

5 Similarly, you can rely upon the opinion if it
6 seems to you to meet the criteria that I have indicated
7 to you about education, experience and training and
8 relevance to the matters that are upon which the
9 opinion is expressed.

10 Sometimes experts are allowed to demonstrate their
11 area of expertise and knowledge by using a hypothetical
12 question. That hypothetical question needs to be a
13 question that's grounded in the evidence in this case
14 and pertinent to the issues of expertise that are
15 present in this case. It can't just be a kind of
16 hypothetical question about something that's not
17 grounded in matters pertinent in this case.

18 So we'll see what happens if hypothetical
19 questions are asked. And if there's some agreement or
20 disagreement among the parties that I may have to sort
21 out about whether it's a proper hypothetical question,
22 that may come up.

23 So, with that, Ms. Farrise, you may proceed.

24 MS. FARRISE: Thank you.

25 If it please the court and the jury, good morning,

1 ladies and gentlemen. Plaintiffs would call as our
2 next witness Dr. Arthur Frank.

3 ARTHUR L. FRANK, M.D., Ph.D.,
4 BEING FIRST DULY SWORN, TESTIFIED AS FOLLOWS:

5 DIRECT EXAMINATION

6 BY MS. FARRISE:

7 Q Good morning, Dr. Frank.

8 A Good morning, Ms. Farrise.

9 Q Maybe you could start by telling the jury what
10 kind of a doctor you are.

11 A I'm a physician who specializes in the field of
12 occupational medicine; that is, we look at what kinds
13 of exposures take place at workplaces or in the general
14 environment that might make people ill, and since it is
15 a part of preventative medicine, we also look to see if
16 we can prevent people from getting disease.

17 I'm also trained as an internist. This is someone
18 who does general internal medicine, and I've done that
19 work during my career as well, but mostly I've done
20 occupational medicine.

21 Q And an internist is a more familiar, I would say,
22 to most of us, the type of doctor who you go in to if
23 you have some large variety of problems, correct?

24 A Correct.

25 Q All right. You also have some other kind of D

1 behind your name, I think?

2 A Yes. I have a second doctoral degree. It's a
3 Ph.D. degree in biomedical sciences. I obtained that
4 for my studies on the effects of asbestos on
5 respiratory tissue. I got my degree in 1972 and my
6 Ph.D. degree studying asbestos in 1977.

7 Q Okay. And have you reviewed materials having to
8 do with Mr. Dale Jolly, his disease, his working career
9 and the like, and formulated expert opinions about what
10 kind of illness he has, what caused it, and who was
11 involved?

12 A I have.

13 Q All right. Now, before we get to that, I'm going
14 to ask you to demonstrate your qualifications,
15 questions about that background.

16 Counsel, do you have a copy of the doctor's CV?

17 Your Honor, for the record, we would like to mark
18 as Plaintiffs' Exhibit 936.1.

19 (WHEREUPON, Plaintiffs' Exhibit Number 936.1 was
20 admitted into evidence.)

21 THE COURT: So let's turn, before anything further
22 is done, and let the defendants say anything they wish
23 to say.

24 MR. BOUCH: Your Honor, we'll stipulate to
25 Dr. Frank's qualifications.

1 THE COURT: Well, I know, and they may want to
2 introduce him to the jury. That's all right. I know
3 you won't go on at length, Ms. Farrise.

4 And I appreciate that on your part, Mr. Bouch.
5 Thank you so much.

6 MS. FARRISE: Thank you, Counsel.

7 Your Honor, may I have permission to display
8 Dr. Frank's curriculum vitae which details his
9 qualifications?

10 THE COURT: Certainly. Put it right up on the
11 screen anyplace that's convenient to show it to the
12 jury.

13 MS. FARRISE: I'm trying to.

14 Q So, Dr. Frank, you have provided us ahead of time
15 this document which we have marked as 936 and which
16 goes on for some 29 pages which, obviously, I'm not
17 going to, you know, go through each and every thing.
18 You have things categorized.

19 Why don't you tell the jury, if you would, about
20 your educational background and we'll start there.

21 A After graduating from college in 1968, I attended
22 medical school at the Mount Sinai School of Medicine in
23 New York. I was fortunate to be admitted to the very
24 first class of the brand-new school which was certainly
25 an exciting time. It was late in that year, in 1968,

1 that I met Dr. Irving Selikoff who was head of the
2 environmental sciences laboratory at Mount Sinai. And
3 when I met him that year, he was already a
4 world-renowned expert in the field of asbestos and
5 asbestos-related disease. He took me on as a student,
6 so I finished my medical training in 1972. I stayed on
7 at the Mount Sinai Hospital to do my first year of
8 training in internal medicine.

9 I left after that first year to become a
10 commissioned officer in the United States Public Health
11 Service, a commission that I ultimately held for some
12 37 years, leaving with the equivalent rank of a Navy
13 captain or Army colonel and did my active duty for two
14 years. At that point I did some active duty later as
15 well, but my active duty was at the National Cancer
16 Institute, specifically the lung cancer branch,
17 studying the effects of asbestos on respiratory tissue.

18 I returned to Mount Sinai in 1975. That year, I
19 started to complete my training in both internal
20 medicine and in occupational medicine, and in 1977,
21 under Dr. Selikoff's supervision and some other
22 scientists who were knowledgeable about asbestos, I
23 received my Ph.D. degree. That would be my formal
24 education.

25 Q Okay. And your CV lists quite a few honors and

1 the like having to do with medicine and your
2 background. Can you tell us -- highlight some that
3 might be relevant or I would say some that stand out
4 that you're most proud of?

5 A Sure. I think there's three or four that I'm
6 particularly proud of. I've been well honored during
7 my career, but in 1987 -- and I need to share with you.
8 I've always been what's called an academic physician.
9 As soon as I finished my training, I joined the faculty
10 at Mount Sinai and I've taught at four institutions
11 during my career and am still teaching now.

12 In 1987 the Association of Teachers of
13 Preventative Medicine started a national award called
14 the Educator of the Year, and I was the first recipient
15 of that, so I was very proud that my colleagues
16 recognized my educational activities in the field of
17 preventative medicine and occupational medicine.

18 Some years later, I was asked to give the keynote
19 address to the American College of Occupational and
20 Environmental Medicine, the biggest group of
21 occupational physicians in the country. They asked me
22 to talk about my experience with asbestos and
23 asbestos-related disease.

24 The following year a similar Canadian group asked
25 me to speak to them. I was the first non-Canadian to

1 be asked. And that was more than 25 years that they
2 have held their meeting, also to talk to them about
3 asbestos hazards.

4 And then there is an organization I was elected to
5 in 1983. It's called the Collegium Ramazzini.
6 Professor Ramazzini was an Italian doctor who, in the
7 year 1700, wrote the first textbook in occupational
8 medicine. The organization was started in the early
9 1980s. It's limited by its charter to 180 physicians
10 and scientists around the world, and I was elected to
11 that. You can't apply. You can't ask to get in. You
12 have to be nominated and elected. So that was an
13 honor.

14 But then last year, in October, I was given what's
15 called the Ramazzini Award. It's sort of the
16 equivalent of a Lifetime Achievement Award, given to me
17 by my colleagues for my work in the area of asbestos.
18 So there are others that have occurred over time, but
19 those are the ones that are most meaningful to me.

20 Q So if we go back to 1968 when you went to Mount
21 Sinai and started to work with Dr. Selikoff, it's been
22 about 50 years --

23 A Next year will be 50 years.

24 Q -- that you have been involved as a scientific
25 researcher about asbestos topics, disease prevention,

1 and the like, correct?

2 A Yes, ma'am.

3 Q All right. You mentioned that you have occupied
4 some part of your professional time in what we call
5 academia. Can you tell the jury about that?

6 A I finished my training on June 30, 1977, at Mount
7 Sinai. July 1st they put me in charge of the program
8 that I just graduated from, so I ran the residency
9 program over the next six years.

10 I then left Mount Sinai to become professor and
11 chair of the department of preventive medicine and
12 environmental health at the University of Kentucky. I
13 started that department. It didn't exist before I got
14 there. They asked me to come and start up a new
15 department. I started and ran that department for
16 11 years.

17 Then I moved on to the University of Texas system.
18 I became vice president for medical education at one of
19 their medical campuses, but I was also a professor of
20 occupational and environmental medicine and a professor
21 of cell biology and environmental sciences. I did that
22 for eight years, and currently, having started in 2002,
23 I'm a professor at Drexel University. I'm a professor
24 of public health. And for 12 of my 15 years, I was
25 chair of the department.

1 I'm also a professor of medicine in the pulmonary
2 division of the college of medicine, and I also have an
3 appointment as a professor of civil, architectural, and
4 environmental engineering in the college of engineering
5 because of work with the environmental engineers that I
6 do. So that would be my academic career.

7 Q And you have a section. I put this up. This is
8 where you are now, at Drexel University. That's in
9 Philadelphia?

10 A Yes, ma'am.

11 Q While we're talking about it, Dr. Frank, how much
12 do you charge as an expert witness?

13 A My charge, from the university, is \$450 an hour.

14 Q And what happens to the money?

15 A I have been doing this kind of testifying in cases
16 like Mr. Jolly's for about 40 years now. Every penny
17 has always gone to whichever university I've worked at.
18 I literally never put a penny in my own pocket.

19 That doesn't mean I haven't benefitted from the
20 monies. Drexel, the dean of the school of public
21 health, allows me to make use of those funds. I ran a
22 department with those funds for 12 years. Extra
23 faculty were hired, extra secretaries, research
24 assistants for the junior people that I was responsible
25 for. And I also do a lot of international work. I've

1 been doing international work for at least 25 years.
2 Literally been over most of the world.

3 This year I will have had six trips overseas
4 teaching about asbestos, doing asbestos-related
5 research, presenting asbestos-related research at
6 international meetings and have used the monies for
7 that. So I have benefitted in that way, but
8 personally, whatever monies have been collected over
9 the years at all four universities I've worked at have
10 gone to the university and not to me.

11 Q So whenever you send a bill for your work in this
12 case, it will -- we will -- somebody, hopefully, will
13 write a check to Drexel University?

14 A If it comes to me in my name, I send it back.

15 Q Doctor, "Fellowships and Memberships." You're our
16 first expert. Quickly, what's that all about?

17 A That's the organizations I belong to, the American
18 College of Physicians, American College of Preventative
19 Medicine, the focus of my professional career. It's
20 what I've been doing, as I mentioned, for almost 50
21 years.

22 I've published in other areas. I've done work in
23 the coal mines of Kentucky. I've worked on silicosis,
24 so other dust diseases. But then I've also published
25 on a wide variety of other topics, activities as an

1 academic, but my time has been taken up with any area
2 of asbestos.

3 Q Then you have this section called "Consultancies
4 and Related Activities," and it lists the number, but
5 the one that stands out to me, at least on this first
6 page, is Environmental Protection Agency.

7 Has the U.S. government and other governments of
8 countries and states asked you to consult with them
9 about this problem regarding asbestos disease and
10 protecting people?

11 A Yes. Without going into all the details, I've
12 been a consultant to NIOSH, the National Institute for
13 Occupational Safety and Health. I was on the board of
14 scientific counselors there, their highest level
15 advisory body, and the director put me on the asbestos
16 and manmade fiber subcommittee. I've been an advisor
17 to OSHA, the Occupational Safety and Health
18 Administration. I've been an advisor to the EPA,
19 advisors of state levels.

20 Currently, I chair the Environmental Justice
21 Advisory Board for the Department of Environmental
22 Protection in Pennsylvania. I serve on the City of
23 Philadelphia Air Pollution Control Board. We certainly
24 deal with asbestos as an issue.

25 And then internationally I interact with

1 government officials in such diverse places as Brazil,
2 Egypt, Israel, Thailand, India, China. I could go on.
3 But my work has taken me pretty much around the world,
4 and I've consulted with health officials in all those
5 and other countries as well.

6 Q And there are pages and pages of activities where
7 you've been asked to come and share your expertise
8 about asbestos including -- similar to what you're
9 going to present today, correct?

10 A Yes, ma'am.

11 Q All right. You mentioned -- and let's try and get
12 to that page. You mentioned that you have actually
13 taken your various opinions and findings and research
14 having to do with asbestos and other topics and written
15 them down and published them in the scientific
16 literature so that other scientists can review them,
17 correct?

18 A Yes, ma'am.

19 Q And we have this section, "Book Reviews and Book
20 Chapters." Did I miss "Publication"?

21 A That's the first section of publications.

22 Q And how many book reviews and book chapters have
23 you, Dr. Frank, authored and coauthored?

24 A It's 80-something now. I forget the exact number.

25 Q Yeah. There's a few pages here. Let's see. It

1 looks like 83 is the last.

2 A 80-something.

3 Q That's book chapters. Now, in terms of other
4 types of scientific research that you've done and
5 published, you have a section called "Articles." Tell
6 us or tell the jury how that's different.

7 A Well, most of the first ones are book chapters.
8 There's only one or two book reviews. Sometimes I'm
9 asked to look at textbooks and comment on them.
10 Articles are generally published on new research
11 findings or reveal articles. Almost all of those are
12 what we call peer reviewed. That means other
13 scientists have judged them appropriate for
14 publication. I've served as a peer reviewer or on the
15 editorial board of many, many journals, probably three
16 dozen or more in my career now. It's hardly a month
17 that goes by that I don't get asked to review an
18 article for some journal in areas that I have some
19 experience.

20 Q And what does that mean? Why is that important?

21 A That means other scientists judge if your paper is
22 worth publishing. Sometimes it is; sometimes it isn't,
23 but I think all but two of my papers or three have been
24 in peer-reviewed publications. The two or three that
25 weren't were when somebody asked me to write a paper ,

1 for a particular journal. It would be not so nice by
2 the editor to say, "Now you have written it, but we're
3 not going to publish it," so they get published.

4 And there is a last section called "Abstracts" --

5 Q Hang on a second. The books, chapters, those are
6 the kind of things we could go into the library and
7 find?

8 A Every one of them.

9 Q Every one of them, right. These scientific
10 articles that other scientists say are okay to put in
11 scientific journals, that's mostly writing to the
12 scientific community?

13 A Absolutely.

14 Q And you have, before we move on, how many of those
15 publications?

16 A 80-something. It might bleed over into 90 by now,
17 something like that.

18 Q Okay. Yeah.

19 A 91.

20 Q It's 91 now. What goes into writing a scientific
21 paper? Is that something you whip out in a week?

22 A No. Usually you have to spend years doing
23 research. That's the predicate. But sometimes they're
24 more reviewed pieces, and then you have got to spend,
25 as I've spent, almost 50 years reading the scientific

1 literature on the subject of asbestos so you can write
2 knowledgeably about it.

3 Or an issue comes up where I, and sometimes with
4 other colleague, take issue with what somebody else has
5 written, so we write in response to that.

6 Q And then you mentioned this last category,
7 "Published Abstracts." Please tell the jury about your
8 writings that are found out in the world for scientists
9 and everybody to see and how this is different than
10 textbooks and published research.

11 A When I want to go give a presentation at a
12 national or international meeting, you submit what's
13 called an abstract. Again, they're peer reviewed. If
14 they decide that my science is worthy of presentation
15 or publication or poster session, they will invite me.
16 I just submitted one a few months ago. I was informed
17 at the end of June that some new data -- there's never
18 been data from the country of Sri Lanka. It's a small
19 island nation off the tip of India. We have the first
20 data now on asbestos hazards in that country. That's
21 been accepted for presentation in a meeting in Scotland
22 in September where I'll be going to present that data.
23 So that will end up being formally printed. It's a
24 short piece. Abstracts are maybe half a page, but it
25 will be formally printed as part of program, and it

1 means that I gave a presentation of some type at a
2 meeting. And I don't know how many of those there are.
3 30 or 40, something like that.

4 Q A number. A number.

5 A A number.

6 Q Thank you.

7 Doctor -- excuse me.

8 MS. FARRISE: Your Honor, at this time I would
9 like to tender Dr. Frank to the court to be accepted as
10 an expert witness.

11 THE COURT: All right. I believe the defense has
12 stipulated to the qualifications and expertise, and so
13 I declare that Dr. Frank is, by means of his education
14 and experience and training, is an expert in the field
15 of asbestos.

16 MS. FARRISE: Okay.

17 Q Dr. Frank, could you tell the jury -- we're going
18 to talk in a moment about Mr. Jolly, but before we get
19 to that, some basic background. What is asbestos and
20 what diseases does it cause?

21 A Would it be possible to use the board?

22 MS. FARRISE: With the court's permission.

23 THE COURT: Certainly.

24 MS. FARRISE: Here is a marker.

25 THE COURT: Dr. Frank, I'm just -- I'm always

1 mindful of our court reporter. And what you may want
2 to do is pull it over just a little bit towards her and
3 stand on the other side -- well, you're right-handed so
4 you're -- okay. Just be sure you let the court
5 reporter hear what you're saying.

6 MR. BOUCH: Your Honor, one point. May I request
7 that the exam be undertaken in a question-and-answer
8 format so that I know whether something calls for an
9 objection and I'll have an opportunity.

10 THE COURT: I think the question to begin with was
11 what is asbestos, so I think she's propounded the first
12 question, and he's going to tell us about that, and
13 we'll see how it goes. If you have a problem, why, let
14 me know.

15 MR. BOUCH: Thank you, Your Honor.

16 THE WITNESS: So the question put to me is what is
17 asbestos. Asbestos is a term, it's a commercial term,
18 used to describe two families of naturally occurring
19 mineral fibers. By naturally occurring, we mean that
20 it is found in nature. It's bound up with rock. You
21 mine the rock, you crush the rock, you take the fibers
22 out of the rock and then make use of those fibers.

23 The first family is called the amphiboles. And
24 five of the six types of asbestos are in the amphibole
25 family. Only two of them have been commercially

1 important. They have been used in a variety of
2 products. A third type is often a contaminant of
3 certain deposits of minerals so that comes up, but a
4 couple of them are more sort of mineralogic curiosities
5 and not really used, though one of them did have a mine
6 in Finland that is no longer operating.

7 The other family is called the serpentine variety.
8 It has one member, and that is chrysotile asbestos.
9 The amphiboles are characterized by being sort of
10 straight and needlelike. The reason it has the term
11 "serpentine" for chrysotile, it looks like this, like a
12 worm or a snake, so it has the term "serpentine."

13 The important thing about the different types of
14 asbestos is this is made up of about five percent of
15 all the asbestos used both in the United States and
16 around the world. The chrysotile, both in America and
17 worldwide, makes up about 95 percent of all the
18 asbestos that has been used in the past. So this is
19 what is asbestos.

20 BY MS. FARRISE:

21 Q How about the amphiboles? Are there, in that
22 family, certain types that have been used commercially?

23 A Yes. One is crocidolite, otherwise called blue
24 asbestos, and amosite. And when I said a commercial
25 term, it is named after a mine in South Africa. And

1 that is called the brown asbestos. And this is known
2 as the white asbestos.

3 Q And where is the blue mined generally speaking?

4 A The blue mined, blue material has been mined in
5 just a few places in the world. The primary mines and
6 the original mines were in South Africa in the North
7 West Cape province. There was also some mining of this
8 material in Australia, and there happens to be a
9 Bolivian mine as well where they mine blue asbestos.
10 That pretty much is where that was mined, but it made
11 up a very small percentage of what was used for
12 products.

13 The vast majority, as I said, was the chrysotile,
14 which is mined in a lot more places.

15 Q Hang on one second, Dr. Frank. Later, hopefully
16 pretty quickly, we're going to be talking about
17 asbestos-containing flange gaskets for valves used in
18 the context of a power plant on high-temperature steam
19 lines. Are you familiar with that, first of all?

20 A I am.

21 Q And do you have an opinion or can you tell the
22 jury what of the types of asbestos was used for those
23 particular asbestos products?

24 A Chrysotile was the main type of material used in
25 gaskets and similar material. A small amount in some

1 products came from the crocidolite.

2 Q So in terms of the gaskets and the packing,
3 chrysotile mainly and some crocidolite?

4 A Correct.

5 Q Okay. Dr. Frank, how, now, does this asbestos --
6 or what are the diseases that this asbestos causes, is
7 probably a better question?

8 A So the question is what diseases do you get from
9 asbestos. And, again, I try to put this in two
10 categories. There's the nonmalignant diseases.

11 Q What does that mean? That's a big word.

12 A It's not cancer. I was going to get to that.

13 Nonmalignant means it's not cancer, but it is --
14 there's a series of diseases. The most important one
15 is a disease called asbestosis or scarring of the lung
16 tissue or the lining of the lung. Just because it's
17 not a cancer doesn't mean, in some groups of people, it
18 can't cause death.

19 For example, in insulators, groups who have the
20 highest exposures, ten percent of people will die of
21 asbestosis.

22 Then we also have the malignant.

23 Q And that's cancer?

24 A Right. And that's cancer. And there are, really,
25 quite a variety of cancers that can be caused by

1 asbestos. The most common one is lung cancer. Same
2 kind of lung cancer you get from other things --
3 cigarette smoke, arsenic, and a whole host of other
4 things. A rare disease, and we're certainly going to
5 be talking about that, called mesothelioma, which, at
6 least in North America, is only related to exposure to
7 asbestos. Nothing else causes it. It has a particular
8 phrase that goes along with that because of it. It's
9 called a signal tumor. And a signal tumor is one where
10 very specific exposures cause very specific diseases.
11 There are other examples like that, but certainly
12 asbestos and mesothelioma are put in that category.

13 It causes laryngeal cancer. That's the voice box.
14 In women it causes ovarian cancer. It can cause kidney
15 cancer and a variety of gastrointestinal tract
16 cancers -- esophagus, stomach, colon, and rectum. Even
17 the small intestine. Rare, but it does occur.

18 So these are the diseases that you can get from
19 asbestos. The ones that occur in the lungs or the
20 larynx are because you inhale asbestos.

21 Q And, Dr. Frank, mesothelioma and asbestosis --
22 well, mesothelioma of the cancers is the only signal
23 tumor, correct?

24 A Yes.

25 Q And by that, all of these other cancers -- ovarian

1 and laryngeal, while asbestos is the cause, there are
2 many things that cause them as well?

3 A There are many causes for some of them, but there
4 is no other cause, at least in North America, for
5 mesothelioma.

6 The reason I say that, just to not leave any
7 points untouched, there are other fibers. We believe
8 it is the fibrous nature of this product that actually
9 causes the cancer. And there is a fiber found in the
10 central part of Turkey where people mine it and use it,
11 and they get mesotheliomas.

12 Q The country of Turkey?

13 A Country of Turkey. And there are fibers on the
14 northwest slope of Mount Etna, a volcano in Sicily,
15 that are also mined and give people mesothelioma. But
16 when I say a fiber, it's similar to a cotton fiber or
17 wool fiber. Those can be inhaled. You get byssinosis,
18 for example, from cotton dust. You don't get cancer,
19 but you get other lung diseases. From asbestos, you
20 can get cancer.

21 Q Okay. Dr. Frank, while I have you there or if
22 you're done answering the diseases it causes and you
23 want to retake your seat, I have some more questions.

24 A Just one more thing I would like to illustrate.
25 Two things, really. Just the very basic anatomy about

1 how asbestos --

2 Q Let me ask a question.

3 And what is the difference, if you're looking at a
4 human being anatomically, between these different
5 diseases, and if you can tell us about the cancers and
6 the asbestosis.

7 A Right. Well, we take asbestos in by breathing it.
8 We also swallow it, but we'll leave that aside. We're
9 not dealing with that today.

10 Q Is this meant to be your depiction of a human
11 being? Tell us what we have here.

12 A The heart and the two lungs.

13 Q Okay.

14 A So asbestos will get in. It can cause scarring in
15 the lung. That's asbestosis. There is a covering
16 tissue called the pleura, and you can get scarring of
17 that. The lung is like a sponge. You think of your
18 kitchen sponge. It holds water. This is a sponge that
19 holds air. And if you put a piece of Saran wrap around
20 it, you now got a covering.

21 On the other side I'm just going to illustrate you
22 can get lung cancer, but you can also get a cancer of
23 this lining tissue. And that is what is a
24 mesothelioma. So it can be a simple scarring, or it
25 can be a cancer, both of which occur in this lining

1 tissue as well as what may occur in the lung itself.

2 So, very simply, that's what happens when asbestos
3 gets into the lung and then some of it migrates out to
4 the edge to the pleurae, and that's been well
5 documented.

6 Q And, Dr. Frank, do all of the families and
7 varieties -- flavors, I think we had it called a little
8 earlier in the trial -- of asbestos cause this
9 mesothelioma?

10 A Very important question. All of the types of
11 asbestos, all of the amphiboles and the chrysotile
12 cause all of the diseases we talked about. There have
13 been populations studied that have had exposure to one
14 or another type of fiber. Very often there is exposure
15 to mixed fibers. That's what often occurs in
16 workplaces. But when individual fiber types have been
17 looked at, all of them cause these diseases.

18 Q What -- do they all fall into being classified as
19 a carcinogen?

20 A Yeah. Carcinogen is a fancy term for a
21 cancer-causing agent. So, yes, they are all
22 carcinogens, and they're all regulated the same as
23 carcinogens.

24 Q Dr. Frank, is there a threshold or a safe level of
25 exposure to asbestos that does not create a health risk

1 for these cancers and other illnesses that you have
2 described?

3 A That's what I would like to illustrate here, a
4 concept we call dose response. As the dose goes up,
5 the biological response goes up. It applies not only
6 to asbestos, but everything, pretty much, with a few
7 exceptions, that humans are exposed to. If it's flu
8 season and somebody coughs you on once, maybe you will
9 get the flu. If they cough you on five times, you're
10 much more likely to get the flu. As the dose goes up,
11 the likelihood of a biological response, the flu, or in
12 the case of asbestos, the cancer goes up.

13 Ms. Farrise asked me is there a safe level. There
14 is one safe level of exposure to asbestos: Zero. It's
15 the only level at which you're absolutely safe.
16 Because we know, again, as the dose goes up, the
17 disease goes up.

18 I'm going to draw one other thing. I mentioned
19 that you can get asbestosis. And without knowing a
20 specific number, I will tell you that there is a
21 threshold. You have to cross a certain amount of
22 exposure before you can get asbestosis. Different
23 people have tried to estimate it. Nobody really
24 agrees, but the principle is there that it takes a
25 fairly large amount to give you asbestosis.

1 On the other hand, cancer is caused at much lower
2 levels. How low? One day of exposure to asbestos,
3 both in animal studies and a few human cases that have
4 been reported, have occurred with a single day of
5 exposure. Now, it's unusual and it's rare, but it
6 tells you how little exposure it takes to give somebody
7 a mesothelioma or a lung cancer.

8 And for mesothelioma, one day has done it. We
9 know a month or less of exposure to asbestos has
10 doubled the risk of lung cancer, for example. That's
11 epidemiological data in humans, but the animal data,
12 one day and mesothelioma, individual cases of one day
13 of exposure.

14 Q And when does it show up? Let's say you have
15 exposure one day of asbestos, and that's the cause of
16 your mesothelioma, when does that come out?

17 A That's a concept called latency. Latency means
18 when are you exposed and when do you get disease.
19 Somebody coughs on you with the flu. Three, four, five
20 days later, you've got it. The latency for
21 asbestos-related diseases -- and that's all of them,
22 asbestosis, lung cancer, mesothelioma -- it begins to
23 show up about ten years after exposure. Think of
24 cigarette smokers. They start smoking in their teens.
25 They get their lung cancers late in life.

1 However, for asbestos, the risk lasts for the rest
2 of your life. You never outlive or outgrow your risk
3 of getting a mesothelioma or lung cancer. And it's in
4 the range of about 40 to 45 years where we see many of
5 the cases where people had exposure at one point in
6 time and get the disease later. Now, they can show up
7 a lot earlier. They can show up after 60 years or
8 70 years. I've seen those cases. But this is the
9 range.

10 So, again, if somebody comes in -- and I have had
11 situations like there. I was exposed to asbestos a
12 month ago. Am I going to get cancer next week?
13 Obviously not. We don't even know if you will, but
14 let's say you do. It's not going to show up for ten,
15 20, 30 years.

16 Q Dr. Frank, in this case, based on the records you
17 have reviewed -- and we're going to be talking about
18 this time period 1980 to '84 for Mr. Jolly, and he was
19 diagnosed with mesothelioma in 2015, so 30 to 35 years
20 after exposure he's diagnosed with mesothelioma -- is
21 there anything atypical or untypical about that?

22 A Absolutely typical.

23 Q Okay. Just to follow up quickly, Dr. Frank, since
24 the only safe level that won't put someone's health at
25 risk as it relates to being exposed to mesothelioma is

1 zero, how come, in the United States, you can still buy
2 asbestos-containing gaskets today?

3 MR. BOUCH: Objection; leading.

4 THE COURT: All right. Just a second.

5 MR. BOUCH: Objection; leading.

6 THE COURT: Overruled.

7 THE WITNESS: That's, as somebody would say, a
8 decision above my pay grade. I will tell you that in
9 something over 55 countries in the world, you can no
10 longer buy or use asbestos. Even Canada, which was a
11 major exporter and kept its mines open for many years,
12 has now put a ban in. We are the only industrialized
13 country in the world that still allows the purchase and
14 sale of asbestos-containing products. Most of the
15 world has recognized that it is a serious health
16 hazard, one, and, B, you can have a perfectly safe
17 society without asbestos.

18 BY MS. FARRISE:

19 Q So we go to France. Couldn't buy an asbestos
20 gasket?

21 A No place in the European Union. You can go to
22 such diverse places as Saudi Arabia and Malaysia and
23 countries that are not known for advanced industrial
24 policy, and they don't use asbestos.

25 Q Okay. Doctor, let's sort of jump forward. How

1 are, if there is a way to classify it, folks exposed to
2 asbestos? In what kind of settings?

3 A There are really three or four ways you can think
4 about how people get exposed to asbestos. First of
5 all, we have workplace exposures. And really there we
6 have two different kinds of exposures. There are
7 people who directly handle, work with, touch, cut, mix
8 asbestos-containing materials. We say that that's
9 direct exposure because they're working with it
10 hands-on.

11 In a shipyard, for example, about two percent of
12 workers were so-called sprayers and ladders who put
13 asbestos into those ships. But the many, many other
14 workers that were there -- electricians, carpenters,
15 engine mechanics, whatever -- wouldn't work with
16 asbestos but the environment would have asbestos in it.
17 And we have a word for that. We call them bystanders.
18 So you can have indirect or so-called bystander
19 exposure where you may be a carpenter working with wood
20 or cutting boards of some kind that do not contain
21 asbestos, but somebody is working near you, or you're
22 working close to where somebody is handling asbestos.
23 You get exposed too. So there's direct and bystander
24 exposure.

25 Then, unfortunately, we learned that workers can

1 take asbestos home on their person, on their clothing,
2 on their beards, on their shoes, on their cars, and
3 they contaminate households. And wives and children
4 get mesotheliomas and lung cancers from those
5 exposures. Obviously a lot less than you would get at
6 the worksite, but still enough to give people disease.

7 And then we have learned that you don't even have
8 to be in a household where somebody brings the asbestos
9 in. There are studies from around the world. The
10 earliest one was 1960 and then a bigger study in 1965
11 in Great Britain. Dr. Molly Newhouse at the London
12 School of Hygiene showed that people who lived within
13 half a mile of an asbestos factory at the east end of
14 London, 11 out of 76 cases of mesothelioma were
15 recorded at one hospital where she found these
16 76 cases. Many related to workers; some related to
17 family members, but some 11 out of 76. That's a
18 considerable proportion were among people who lived
19 within half a mile of that factory.

20 Q Got mesothelioma?

21 A Got mesothelioma. So we call that neighborhood or
22 general environmental exposure. So all of those levels
23 from direct handling down to living a half a mile away
24 was enough to give people mesotheliomas.

25 Q And, Dr. Frank, is that one of the reasons why

1 those other 55 countries have entirely banned the use
2 of asbestos because of its lethality at tiny doses?

3 MR. BOUCH: Objection; leading.

4 THE COURT: It is leading.

5 All right. Don't lead.

6 MS. FARRISE: Okay. I'll withdraw.

7 THE COURT: Sustained.

8 BY MS. FARRISE:

9 Q Dr. Frank, the bystander exposure at work but not
10 the direct handling of products -- strike that.

11 What kind of exposure in terms of the work at Duke
12 Energy did Mr. Jolly have?

13 A Mr. Jolly was not a direct handler of asbestos.
14 He didn't do work on the valves that he was there to
15 inspect. He stood next to those people who were taking
16 out the asbestos gaskets from those valves, making sure
17 they took it out properly and then making sure they got
18 put in properly. When you're dealing with nuclear
19 power plants, you want to be sure things are done
20 right. The consequences of things going wrong can be
21 rather severe and hazardous.

22 So he would stand, you know, close to people
23 actually removing it, sometimes removing it with power
24 equipment, with his need to wear safety glasses, to
25 have hearing protection for noise of the power tools

1 that were taking out the asbestos, creating dust that
2 he was not as close as the guy taking it out but was a
3 few feet away and breathing that dust as well.

4 Q So which one is he?

5 A Bystander.

6 Q And so, Dr. Frank, I guess I forgot to ask you.
7 You have written a lot of things and created a lot of
8 scientific literature, but in addition to what you have
9 contributed, have you reviewed scientific research and
10 studies, measurements of exposures, evaluations of
11 products, asbestos products that is published in the
12 medical literature and the scientific literature?

13 MR. BOUCH: Compound objection, Your Honor.

14 THE COURT: What was that?

15 MR. BOUCH: Compound. It was a list of things.

16 THE COURT: All right. I'll allow the question.
17 I think the jury can sort it out.

18 THE WITNESS: All of the above, yes. And I have
19 literally been in workplaces, including powerhouses,
20 during my career. I mean, one of the things about
21 being an occupational physician, you don't just sit in
22 our office with your white coat and your stethoscope.
23 You have to go out to workplaces. If you came to my
24 office, you would see I have a couple hardhats, safety
25 glasses. I have been out in workplaces, including

1 power plants, underground in coal mines when I looked
2 after a thousand coal miners. You go out and see where
3 people actually work so you get an understanding when
4 you do talk to them in your clinical setting, what it
5 means to be out there.

6 BY MS. FARRISE:

7 Q Okay. And are there published data and have
8 people researched the level and types of exposures that
9 direct handling and bystander exposures can generate in
10 a power plant setting? Let's focus a little.

11 A Yes, in those settings and in other settings where
12 asbestos is used. Garages, for example, where people
13 take brakes out.

14 Q And can you give the jury an idea of the scope of
15 what you have reviewed that's out there covering
16 asbestos exposures in the workplace?

17 A Yeah. You know, what I have to say is I've read
18 during my career thousands and thousands of articles,
19 some of which deal with those topics of measurements,
20 some deal with laboratory studies, some of which I've
21 done, cell culture, organ culture, whole animal
22 studies, some of which -- all of which I bring to my
23 experience in being able to answer questions and share
24 some information with you.

25 But, clearly, there are measurements that have

1 been done in a variety of workplaces. And I've spoken
2 to workers as I've taken care of them, describing what
3 the workplace was like. A worker who stripped
4 chrysotile asbestos off steam locomotives, which is
5 what they used, and they were in a cloud of dust, you
6 couldn't see a guy 20 feet away, that was a situation
7 we knew was extraordinarily hazardous, and those
8 workers came down with all the diseases we mentioned.

9 Q Let's take asbestos gaskets used on flanges as it
10 relates to valves. Have those type of gaskets as a
11 product been studied and data published about the
12 levels and amount of asbestos that is emitted when they
13 are removed using hand tools and power tools?

14 A Yes.

15 Q And have you reviewed that body of literature as
16 well?

17 A I have.

18 Q Okay.

19 A Clearly it's above zero.

20 Q And it's above zero.

21 Let me ask you. Is it a little exposure or a
22 significant, substantial amount when an
23 asbestos-containing gasket that's been in place is
24 removed using a hand wire brush like you would use on a
25 barbecue grill or even an electric-powered grinder to

1 clean the surface?

2 A You can get significant levels when you use those
3 kinds of tools, creating individual fibers in that
4 material. It may have started out as a solid material,
5 but individual fibers are released.

6 I mean, even something like asbestos cement. You
7 would think, how can you release fibers from asbestos
8 cement? It's pretty solid. It's a piece of concrete,
9 right? But if you drill it, if you bevel the edges so
10 you can put the piping together, you will have
11 individual fibers. And even water flowing through
12 those pipes will release individual fibers that come
13 out into the water stream.

14 Q Dr. Frank, do you have an opinion as to what the
15 percentage amount of asbestos would be in
16 asbestos-containing gaskets utilized in a flange for a
17 valve in a power plant setting?

18 A It could be up to 90 percent.

19 Q 90 percent what?

20 A Asbestos.

21 Q So most of the product of an asbestos gasket is
22 actually asbestos, correct?

23 A Yes.

24 Q And I'll put "up to."

25 A Right. It could be lower, but it could be that

1 high. And when you're dealing with that level and
2 you're grinding it, you're certainly going to be
3 releasing fibers.

4 Q Dr. Frank, quickly, before we move on, let me ask
5 you to assume something you probably know, that the
6 current Department of Labor Occupational Safety and
7 Health Administration has set a regulatory workplace
8 limit of .1 fiber per cc on a time-weighted average
9 basis. Do you know what I mean?

10 A Yes. What that means is even though it's
11 recognized as a cancer-causing material, legally there
12 can be certain levels allowed in the workplace. A
13 tenth of a fiber per cc means -- a cc is about the size
14 of a sugar cube. So think of a sugar cube. Take ten
15 sugar cubes, and you're allowed one fiber.

16 Now, that may sound like a pretty small amount.
17 But there is scientific data now that, even though this
18 is what the government says can be allowed, that .1
19 fiber for one year of exposure -- and many workplaces
20 had more than that. But let's say that you worked at
21 the legally allowable limit of .1 for a year; it raises
22 your risk of getting a mesothelioma four times.

23 Q And why is there a rationale for letting people be
24 exposed even at what seems like a tiny number if people
25 are at risk of getting this very serious disease?

1 A The rationale is that at workplaces, it's not just
2 a scientific or medical judgment, but it's an economic
3 judgment, a monetary judgment. Basically, as
4 Dr. Selikoff used to say, you know, how much cancer are
5 you going to allow? And the current limits allow a
6 certain amount of cancer. In fact, when the government
7 did its own analysis back in 1986, they looked at .1
8 fibers and came up with over two extra cases of cancer
9 at that level. And in 1986, they were only setting it
10 at .2. It didn't go to .1 until 1994, knowing that
11 there was -- and the preamble says there will still be
12 excess cases of cancer at this legally allowable limit.
13 Maybe that helps one understand why some countries have
14 decided none at all.

15 Q And when you say two cases of cancer, per how many
16 workers? Is it like two in a million at this level?

17 A No. Two in a hundred thousand, I think.

18 Q Okay. Might it be two in 1,000 workers?

19 A It might be two in 1,000. I can't remember what
20 the denominator was, but it certainly was in excess --

21 Q I'll put a question mark.

22 A The regulations will speak for itself.

23 Q Right.

24 A It's certainly not two in a million.

25 Q Okay. But the regulation of .1 fiber per cc that

1 allows people today to still be exposed, it's not going
2 to prevent cancer?

3 A No. It will reduce it but not prevent it.

4 Q Okay. And then this rule goes with something
5 called a TWA or time-weighted average. Do you know
6 what that is?

7 A Yes. A time-weighted average is what is allowed
8 over an eight-hour workday. So most people aren't
9 working with asbestos every minute of every day. There
10 are also what's called peak levels that you're allowed
11 to have. So you can have a spike, which I forget what
12 the number is for that. It's not that high, but it's
13 certainly more than .1, but it's only allowed for
14 15 minutes. And then over the eight-hour day, if you
15 average it out, it still drops below the .1.

16 The problem is, and we see this in some settings
17 in housewives that shake out their husband's
18 contaminated clothing, they will shake out a couple
19 pairs of pants or coveralls. The levels rise to rival
20 those at workplaces. They will only do that for a few
21 minutes. And over the course of the day, the
22 time-weighted average may be below a legally allowable
23 limit, though it doesn't apply to housewives, but that
24 big peak for a short period of time is actually more
25 dangerous than very low levels over longer periods of

1 time because it overwhelms the body's defense
2 mechanisms. We have mechanisms to keep things out of
3 the lungs and out of the body.

4 But, so, short-term, high-level exposures may
5 actually be more dangerous, appear to be more dangerous
6 than long-term, low-level exposure. So a time-weighted
7 average puts it out over the course of a day, but it's
8 a number that doesn't reflect spikes that some people
9 may have during the course of that workday.

10 Q And this is what the government in America, who
11 hasn't banned asbestos, is doing?

12 A At the moment, yes.

13 Q Do your lungs and your body, human body, know
14 anything about the time-weighted average?

15 A No. And it also doesn't know what product it came
16 from. It doesn't really care what fiber type it is.
17 If it gets in the body, it acts like asbestos.

18 Q Okay. Now, Dr. Frank, the jury has heard, I'll
19 ask you to assume -- well, I guess it's actually in
20 evidence -- that there was used in valves a steel
21 asbestos gasket. Are you familiar with what I'm
22 talking about?

23 A I am. There are various metals that were combined
24 with asbestos to make up gaskets. Sort of like a
25 sandwich, there will be steel, there were also brass

1 and copper gaskets, and then the asbestos will be
2 layered in there. But that all sort of breaks down
3 over time from use.

4 Q Is there anything about a steel asbestos gasket
5 that prevents exposure that leads to a health risk of
6 cancer?

7 A No. Again, if it's asbestos and it's released and
8 you breathe it, you're now at risk for getting disease.

9 Q How about asbestos-graphited packing, what if the
10 packing material has a graphite or a slick something
11 and you put it in and it's in a valve in operation at a
12 power plant, and then 18 months later, someone comes
13 along and has to remove that graphited-asbestos
14 packing? Does that not put people -- not cause
15 exposure and put people at risk?

16 A It does cause exposure. The fact that it had some
17 slick coating on it when it was put in, as you grind it
18 out and take it out and it falls apart, doesn't mean
19 that you won't get loose asbestos fibers like you would
20 from any other product that's manipulated and gives up
21 fibers.

22 Q And if those products are removed through hand
23 wire brushing, electric grinders, the gaskets, and
24 someone gets mesothelioma some decades later, are those
25 exposures an important and substantial part of the

1 cause of that mesothelioma?

2 A Yes.

3 Q But can't you just say, "Well, but it was like one
4 gasket on one day and so let's just throw that out"?

5 MR. BOUCH: Leading objection.

6 THE COURT: What's that?

7 MR. BOUCH: Leading objection.

8 THE COURT: All right.

9 Don't lead, Ms. Farrise.

10 BY MS. FARRISE:

11 Q Okay. Can you, Dr. Frank, say there's one
12 exposure to removal of a steel asbestos jacket on one
13 day for half an hour, a person gets mesothelioma
14 30 years later, and say, you know what, that sounds so
15 puny, let's just put that to the side in terms
16 causation?

17 MR. BOUCH: Same objection, Your Honor.

18 THE COURT: I'll permit it.

19 THE WITNESS: What we have to say at the end of
20 the day, if someone gets a mesothelioma, is that the
21 cumulative exposure they have had to asbestos from
22 whatever products over whatever time is what gave it to
23 them. So I could give you, you know, an analogy about
24 small amounts of things.

25 If we argue, for example, that one cigarette won't

1 give you lung cancer and somebody decides to -- and
2 there is a million brands of cigarettes. Now, there
3 aren't. But let's say there is a million brands of
4 cigarettes. Somebody decides to smoke. They smoke one
5 each of the million cigarettes and they get lung
6 cancer. Do you throw out one cigarette because each
7 cigarette is inconsequential, or do you say the
8 totality is what gave someone their lung cancer?

9 The same thing applies to asbestos. Some products
10 contribute more; some contribute less, but you can't
11 leave any of them out because it is a cumulative
12 exposure, the totality of what people were exposed to
13 that gave them their disease. So all of them have to
14 be included.

15 BY MS. FARRISE:

16 Q Once a person has the cancer?

17 A Well, and before they get the cancer, all of them
18 contribute to an increased risk. And if they get it,
19 then it was causative.

20 Q You have reviewed some materials specifically for
21 the Beverly Dale Jolly case, correct?

22 A Yes. That's the file I have here.

23 Q Can you tell the jury what you have looked at?

24 A Well, I have looked at some information about his
25 exposures. I've looked at the medical records. I've

1 looked at deposition testimony of Mr. Jolly and some
2 others that have been involved in this case. I've
3 looked at some legal filings and documents as well.

4 Q And I have a little Post-it here that tells me I
5 forgot to ask you a super important question so let me
6 backtrack.

7 How far, talking about this bystander exposure --
8 that's the person who's just breathing when products --
9 when asbestos is being released -- how far away does a
10 person, or close, have to be in order to be exposed as
11 a bystander to asbestos?

12 A You can be a considerable distance away and still
13 have significant exposure.

14 I'll start with sort of the extreme that I'm aware
15 of. When they were spraying the World Trade Center in
16 New York, one of the two towers was sprayed with
17 asbestos, and then they didn't allow the spraying of
18 asbestos materials anymore. The material had a
19 specific fingerprint. It had other products mixed in
20 with it. They could detect that in the air over Boston
21 300 miles away. So things do travel.

22 We know in shipyards that there are people who
23 work in the hulls of ships or on the decks, but even
24 the security guards or the architects working in
25 offices come down with asbestos-related diseases

1 because, essentially, the whole shipyard gets
2 contaminated.

3 In garages, we know that measurements have been
4 taken 15, 20 feet away with very high levels of
5 exposure because of brake handling. So materials can
6 travel. And when, for example, you're using power
7 tools, it's going to spread it out over a considerable
8 area.

9 Q Okay. And, Dr. Frank, this issue of the asbestos
10 fibers spreading out, I think, as you said, is that one
11 of the factors that these other countries have looked
12 at with respect to the issue of whether to ban it
13 entirely?

14 MR. BOUCH: Objection; cumulative, relevancy.

15 THE COURT: I'll allow it.

16 THE WITNESS: Yes. I would think they have looked
17 at all the information that was out there about
18 asbestos. There's been a considerable knowledge about
19 asbestos and asbestos hazards building up for well over
20 a hundred years, and all of that I would think is taken
21 into account when you make a decision to stop using
22 something.

23 BY MS. FARRISE:

24 Q In Mr. Jolly's particular matter here, can you
25 tell the jury what testimony you have had a chance to

1 review?

2 A I've read several of his own transcripts where he
3 described what it was like at workplaces and that he
4 was standing there watching as this work was being
5 done.

6 Q And in Mr. Jolly's case, is there some like
7 distance that you would say from the worker who is
8 removing an asbestos-containing gasket from a flange
9 valve face, that if he were, you know, 30 feet away,
10 then he wouldn't be exposed? Can you say that?

11 A No, you can't. It would be less exposure than if
12 he was 15 feet away or five feet away. It diminishes
13 over distance, but you're still exposed.

14 Q And where there's testimony that Mr. Jolly was
15 standing right next to the people or even four or
16 five feet away, can you compare the level of the direct
17 handler versus the person who's just breathing and
18 inspecting?

19 A It would probably be marginally lower but not much
20 lower at five feet away with a power tool.

21 Q Dr. Frank, let me ask you to assume certain facts.
22 Okay? It's going to be a little lengthy so bear with
23 me.

24 I'm going to ask you to assume that, in
25 Mr. Jolly's case, he began his work at Duke Energy

1 within power plants in the year 1980, and that his job
2 title was as a mechanical inspector, and he did that
3 job until approximately the end of 1984 within power
4 plants of Duke Energy, who I'll ask you to assume,
5 primary business was to generate electricity to power
6 businesses and homes. Are you with me?

7 A Yes, ma'am.

8 Q Please further assume that the duties of Mr. --
9 the duties of the mechanical inspector included work
10 predominantly during outages and shutdowns. Are you
11 with me?

12 A Yes.

13 Q And do you know what an outage and a shutdown is
14 in a power plant context?

15 A Yes. You literally shut down the equipment so you
16 can do preventive maintenance or repairs.

17 Q And during the shutdown and the outages, the
18 duties of the mechanical inspector was to inspect the
19 work of pipefitters who were working on piping systems
20 connected to valves at various power plants, and also
21 the valve repair crew that was working on valves at the
22 power plant. Are you with me?

23 A Yes, ma'am.

24 Q Please further assume that, as an inspector, the
25 work duties were to ensure that the old gaskets, which

1 had been in place and in operation on the valve flange
2 were removed adequately, entirely, such that the flange
3 surface was clean and totally free of debris and
4 particles. Are you following me?

5 A Yes.

6 Q And that because of that, the mechanical inspector
7 would be standing in close proximity to a pipefitter or
8 other worker who was removing asbestos-containing
9 gaskets using a hand wire brush or an electric wire
10 grinder to grind off the asbestos-containing gasket
11 from the flange face of valves at power plants. Are
12 you with me?

13 A Still with you.

14 Q Okay. And please assume, Dr. Frank, that the
15 process of using those tools on the asbestos-containing
16 gaskets created dust that was visible to see in the
17 area from the material and that the mechanical
18 inspector was breathing that dust and testified to
19 actually inhaling that dust; that the valves at the
20 various power plants of Duke Energy came in small sizes
21 in terms of diameter, anywhere maybe from four-inch
22 with a flange face gasket to valves that had a diameter
23 so big that it would require 66, but maybe only 49,
24 stud bolts to connect the pipe to the valve and connect
25 the two flanges. Are you with me?

1 A Yes.

2 Q And that those gaskets for those size of flanges
3 were also removed using hand tools and electric tools,
4 and it took a while. Are you with me?

5 A Yes.

6 Q Please also assume that the temperatures, in some
7 cases, of the material that had run and flowed through
8 the valves and the pipelines could be 1,000 degrees
9 coming off of the steam boiler equipment of a power
10 plant. Do you know what I'm talking about?

11 A Yes.

12 Q And that what I've just described to you was part
13 of the regular, ongoing and consistent work of the
14 mechanical inspector during the period of time 1980
15 through 1984. Do you have an opinion with a reasonable
16 degree of medical certainty as to whether or not, first
17 of all, there was an exposure to asbestos to the
18 bystander mechanical inspector that would put his, in
19 this case, health at risk for asbestos-related
20 diseases?

21 MR. BOUCH: Your Honor, for the record, I object
22 to the incomplete hypothetical, assumes facts not in
23 evidence.

24 THE COURT: Very good. I've listened carefully.
25 I believe that the hypothetical does not assume any

1 facts not in the record and, therefore, you may
2 continue.

3 And the first question on the hypothetical is, as
4 I understand it, do you have an opinion as to?

5 BY MS. FARRISE:

6 Q Whether or not the mechanical inspector bystander
7 worker was exposed to asbestos such that his health was
8 put at risk for asbestos-related diseases and cancers?

9 A Yes, I do have an opinion, and my opinion would be
10 that, yes, given those circumstances and the
11 description as you gave it to me would put somebody at
12 risk for developing disease, and on every occasion that
13 this occurred, their risk would have been increased as
14 the amount of exposure would have increased.

15 Q You mentioned every occasion. Let me ask you to
16 further assume, take all of that stuff and assume that
17 the exposure to asbestos from the removal of
18 asbestos-containing gaskets on the flange portion of a
19 valve occurred on just one occasion.

20 MR. BOUCH: I'm sorry, ma'am. Could you speak a
21 little louder? I didn't catch that.

22 BY MS. FARRISE:

23 Q Assume everything that I've already asked you to
24 assume, and I ask you to assume, Dr. Frank, that the
25 bystander mechanical inspector was exposed to asbestos

1 from the removal of asbestos-containing gaskets on a
2 valve flange face using electric power tools and hand
3 tools on one occasion. Are you following me?

4 A I am.

5 Q And that same man, 30 or 35 years later, was
6 diagnosed with mesothelioma. Are you following me?

7 A Yes.

8 Q Do you have an expert opinion with a reasonable
9 degree of medical certainty as to whether or not that
10 exposure, even if it were just one occasion, would be a
11 substantial contributing factor to what caused the
12 mesothelioma?

13 A I do have an opinion.

14 Q And what is that?

15 A And my opinion is since there is no exposure that
16 can be left out for reasons we discussed a bit earlier,
17 that would be a substantial contributing factor. It
18 was part of one's cumulative exposure.

19 Q Dr. Frank, if all of the things I've asked you to
20 assume, if that were the only asbestos exposure, in and
21 of itself, would it be sufficient to cause
22 mesothelioma?

23 A By that are you saying his one day of exposure or
24 just the exposure over four years to --

25 Q The one day of exposure, standing there doing

1 inspection work when a gasket on a flange face of a
2 valve, an asbestos-containing gasket on the flange face
3 of a valve, is being removed with a power tool, hand
4 tools, and scraper?

5 A Again, I have not ever seen such a case, but if
6 that was the facts of a case given to me, I would have
7 to say that that exposure, because we know in other
8 settings one day of exposure was sufficient, that that
9 was the cause of someone's mesothelioma if they
10 developed one.

11 Q So if that person developed mesothelioma, that
12 exposure in and of itself would be sufficient; is that
13 what you're saying?

14 A Yes.

15 Q Dr. Frank, can you explain a little bit more to
16 the jury this cumulative exposure. Based on the things
17 I've asked you to assume, if they had the one exposure,
18 which in and of itself would be enough, if you add
19 together regular instances of those types of exposures,
20 how does that fit into the overall picture of which of
21 those were a substantial contributing factor to the
22 development of mesothelioma that happens?

23 A The last thing to that is easy. They all fit.
24 They all were substantial factors. That said, what
25 cumulative exposure means, as I talked about when I

1 talked about dose response, the likelihood of getting
2 disease goes up with increasing amounts of exposure, as
3 the dose goes up. So if someone has multiple
4 exposures, even to multiple products, all of them have
5 contributed to make up the cumulative dose. And for
6 any given individual, it is that cumulative dose that
7 gave them that disease.

8 Q Let me ask you to make all of those same
9 assumptions about exposures and ask you to assume that
10 that is the exposure of Mr. Dale Jolly.

11 Do you have an opinion with a reasonable degree of
12 medical certainty as to whether or not Dale Jolly's
13 mesothelioma was substantially contributed to by
14 exposure to asbestos liberated from asbestos gaskets on
15 the flange face of valves during removal using the
16 processes that I've described?

17 A I do have an opinion.

18 Q And what is that?

19 A My opinion would be that Mr. Jolly had those
20 exposures contribute to his cumulative exposure that
21 gave Mr. Jolly his mesothelioma.

22 Q And, Dr. Frank, but for those exposures, meaning
23 if you try to take them out, would you be able to say
24 that Mr. Jolly would have still gotten mesothelioma?

25 A What you say is that all of them contributed.

1 What occurs when you take them out, any one of them, is
2 unclear what other exposures may have done without
3 those, may have changed the time or the setting in
4 which you get a mesothelioma.

5 Some of my own research pointed out that
6 additional exposures increased cell division, so if you
7 leave out one exposure or another, maybe the cells
8 don't divide and the diseases show up a bit later, but
9 one has to say that whatever exposures one has when one
10 gets disease was contributory.

11 Q The "when one gets disease." Before one gets
12 disease. Are you following me?

13 A Yes.

14 Q So let's go back. For instance, if I ask you to
15 assume in the year 2000, and Mr. Jolly, 15 years before
16 his diagnosis, at that point, having been exposed to
17 asbestos, would there be any way to know -- is there a
18 test or anything else -- whether someone is going to
19 get mesothelioma after exposure?

20 A At that point in time, no.

21 Q Okay.

22 A There's no predictive test that any given
23 individual will develop a mesothelioma. You can make
24 relative judgments about the likelihood of someone
25 getting it. The more exposure they have, the more

1 likely they are. There are some genetic issues that
2 make someone more likely to get it, but you still need
3 the exposure. It's not a routine kind of test that we
4 do. In retrospect you could say that. But there is no
5 way of knowing in 15 years before the diagnosis that
6 five, ten, 15, 20 years later that person is going to
7 get a mesothelioma.

8 MS. FARRISE: Your Honor, I'm not sure when a good
9 time is, but we've been densely in science, and I'm
10 going to turn to another topic. I would ask the court
11 if we can take our morning break now.

12 THE COURT: All right. Members of the jury, let's
13 take a 15-minute break at this time.

14 (WHEREUPON, the jury exited open court at
15 10:55 a.m.)

16 THE COURT: We'll resume at about 11:10.

17 (WHEREUPON, a recess was taken from 10:56 a.m. to
18 11:14 a.m.)

19 THE COURT: All right. Ladies and gentlemen, are
20 we all in place and ready to go? I know that it looks
21 like Yancey and Jonathan are consulting.

22 MR. McLEOD: I'm sorry, Your Honor. We're trying
23 to cut some things out.

24 THE COURT: That's okay. I just don't want to
25 call the jury in until you all are complete.

1 (WHEREUPON, the jury entered open court at
2 11:15 a.m.)

3 THE COURT: Thank you, ladies and gentlemen of the
4 jury. You may be seated, please, and we will continue
5 with the direct examination of Dr. Frank.

6 Ms. Farrise.

7 MS. FARRISE: Thank you, Your Honor.

8 Q Dr. Frank, I want to jump in kind of where we left
9 off and relate it a little more specifically to
10 Mr. Jolly. Okay?

11 A Yes, ma'am.

12 Q Dr. Frank, in terms of the things that I asked you
13 to assume, is it your opinion that Mr. Jolly, based on
14 the materials that you've read, the sworn testimony
15 from Mr. Jolly and the other Duke folks who were there
16 working with him on outages from 1980 to 1984, that
17 this is the type of situation where someone would have
18 been exposed to one gasket in connection with valves or
19 not?

20 MR. BOUCH: Your Honor, objection, leading. "Is
21 it your opinion" I think is improper.

22 THE COURT: It is. Rephrase the question,
23 Ms. Farrise. "What is your opinion," or something of
24 that nature is, of course, the way to not lead.

25 MS. FARRISE: Okay. Thank you. I appreciate the

1 help, Your Honor.

2 Q What is your opinion as to whether or not the sort
3 of one-day, one-gasket circumstance that we were
4 hypothetically discussing, is that, after you have
5 reviewed the materials, what Mr. Jolly had?

6 A From reading the materials, my understanding is
7 that in that four-year period we are not dealing with
8 one day of exposure. We are dealing with a man who had
9 a particular job title that regularly put him in
10 situations where gasket after gasket was something that
11 he reviewed being taken out and new ones being put in.

12 Q And what is your opinion as to whether he
13 regularly was exposed to asbestos from the removal of
14 gaskets as to whether or not those gaskets were
15 associated with valves?

16 A My understanding is that the gaskets that he
17 observed being removed were associated with valves.

18 Q So the testimony that you have given about gaskets
19 removed from flange faces, to clarify, have you been
20 talking about flange faces and gaskets associated with
21 valves?

22 A Yes.

23 Q Okay. Dr. Frank, let me ask you sort of another
24 hypothetical, which is that Mr. Jolly worked as a
25 mechanical inspector from 1980 to 1984, that -- ask you

1 to assume that it was part of his frequent and normal
2 job responsibilities to be on outages where, on a
3 consistent and regular bases, gaskets would be removed
4 from the flange face of valves using wire brushing
5 tools and scrapers, and that Mr. Jolly's proximity
6 would be ten feet or less from that work, that he could
7 see the dust, that he breathed the dust, and that this
8 was part of the regular and consistent work that he did
9 during this '80 to '84 time frame. Do you have that in
10 mind?

11 A Yes.

12 Q What is your expert opinion with a reasonable
13 degree of medical certainty as to whether or not that
14 exposure would be a substantial contributing factor to
15 the development of his mesothelioma?

16 MR. BOUCH: For the record, Your Honor, I object
17 to the hypothetical, incomplete, assumes facts not in
18 evidence.

19 THE COURT: Very well. I will permit the
20 question. I think the hypothetical is complete and
21 clear.

22 THE WITNESS: My opinion would be that those
23 exposures were a significant contributing cause to his
24 mesothelioma.

25 BY MS. FARRISE:

1 Q And if I ask you, Dr. Frank, about that same
2 hypothetical and ask you to assume that a regular and
3 consistent valve that the work was performed on in
4 terms of removal of asbestos-containing gaskets was a
5 Crosby valve at the power stations that he worked on,
6 and that the asbestos-containing gaskets were supplied
7 or specified by Crosby with its valve, do you have an
8 opinion with a reasonable degree of medical certainty
9 as to whether or not Crosby valves were and the
10 exposures from its product was a substantial
11 contributing factor to Mr. Jolly's mesothelioma?

12 MR. BOUCH: Same objection, Your Honor.

13 THE COURT: I'll allow the question.

14 THE WITNESS: I do have an opinion. It would be
15 the same answer to the extent that Mr. Jolly was
16 exposed to asbestos, that it was connected in some way
17 with a Crosby valve, that would have been a substantial
18 contributing cause to his mesothelioma.

19 BY MS. FARRISE:

20 Q And, Dr. Frank, would your opinion, as you have
21 just given as it relates to Crosby valve, have been any
22 different in the exposure to asbestos-containing
23 gaskets from the removal process that I asked you
24 assume occurred from replacement gaskets that Crosby
25 Valve Company specified and supplied be used in

1 connection with the regular and ongoing maintenance of
2 those valves?

3 A No, it would not be any different.

4 Q Okay. Dr. Frank, turning to Fisher Controls, and
5 if I ask you to assume the same things with respect to
6 Fisher Controls, that they were a regular, consistent
7 valve that was worked on as part of the maintenance
8 work from 1980 to 1984 where Mr. Jolly was present to
9 be a mechanical inspector, and that the
10 asbestos-containing gaskets on the Fisher valves
11 flanges were removed in the same manner, using wire
12 brushing tools and scraping tools creating dust that
13 Mr. Jolly could see, that he breathed in, would the
14 Fisher -- associated exposure be a substantial
15 contributing factor to Mr. Jolly's development of
16 mesothelioma?

17 MR. BOUCH: Same objection, Your Honor.

18 THE COURT: Noted and overruled. Same reasons.

19 THE WITNESS: You would get the same answer. If
20 Mr. Jolly was, in fact, exposed to Fisher Control
21 valves and had exposure to asbestos, they would have
22 been a substantial contributing cause to his
23 mesothelioma.

24 BY MS. FARRISE:

25 Q And if Mr. Jolly's exposure, as I've asked you to

1 assume it, were his only exposure, would that be
2 sufficient to cause his mesothelioma?

3 A If his exposures to either Crosby or Fisher valves
4 had been his only exposure, that, in my opinion, would
5 have been sufficient to cause his mesothelioma.

6 Q And both of those opinions you hold with a
7 reasonable degree of medical certainty?

8 A All of the opinions I've given I hold with a
9 reasonable degree of medical certainty.

10 Q Okay. Now, having reviewed the material,
11 Dr. Frank, as to Mr. Jolly -- strike that.

12 We talked a little while ago about one exposure to
13 one occasion where a person is present during the
14 removal using the wire brushing tools for
15 asbestos-containing gasket. Do you remember that
16 before the break?

17 A Yes. That was a hypothetical, not a situation
18 that I've ever in real life encountered.

19 Q How does an exposure of that type compare to
20 something called a background or ambient exposure that
21 we all have?

22 A The term "background" or "ambient" exposure refers
23 to what exists in the air that all of us breathe pretty
24 much every day. As I mentioned, asbestos is a
25 naturally occurring product so it weathers from rocks.

1 Millions and millions of tons of asbestos have been
2 used in the past for 3- to 4,000 different products.
3 As those have broken down over time, they get into the
4 air. So you and I and everybody in this courtroom
5 breathes some small amounts of asbestos.

6 Suggestion as to the background levels that we
7 should work with, since, obviously, they can vary day
8 by day, if it rains, for example, it will wash asbestos
9 out of the air, on a hot, dry day, more fibers will be
10 up in the air, but we're talking about in an urban area
11 of .00001 fiber per cc.

12 Q Hang on. Hang on. Hold your horses. How many
13 zeros?

14 A Point four zeros and a one. That's for urban
15 areas. And for rural areas, you add another zero.

16 Q So that would be .000001 fiber per cc in rural.
17 And is that because there's less --

18 A There's less buildings, there's less insulation
19 that's been used, fewer cars that had asbestos brakes
20 in the past, so forth.

21 Q Okay. So now that we have an idea of what
22 background or ambient levels are, how does the exposure
23 levels to asbestos that you have opined in your expert
24 view for Mr. Jolly from the removal of
25 asbestos-containing gaskets, as we've been discussing

1 it, compare?

2 A Workplace levels, even as a bystander that
3 Mr. Jolly would have had, would have been many, many
4 orders of magnitude greater than that. We're probably
5 dealing with single or even double digits for short
6 periods of time compared to all those zeros until you
7 get to a one.

8 Q So, we have a court reporter, so we want to be
9 clear. What does single or double digits -- what kind
10 of numbers are those?

11 A Single digits would be 1 to 9; double digits, 10
12 and above. Triple digits, 100 and above. We're not
13 dealing with those kinds of levels here, I wouldn't
14 expect. But, clearly, with at least single digits for
15 the time that gasket is being ground out that contains
16 a considerable amount of asbestos.

17 Q So my math is not too good, which is why I'm a
18 lawyer. It looks like to me, though, one fiber per cc
19 compared to .000001 fiber per cc is millions of times
20 higher in terms of exposures than we have as
21 background?

22 A Five orders of magnitude or six orders of
23 magnitude, that's millions of times. Hundreds of
24 millions. It's a lot more.

25 Q Yeah.

1 A Simply put: You can get in a workplace in one day
2 what a lifetime at these levels would give you, but the
3 weight of the total fiber dose.

4 Q Dr. Frank, in terms of looking at the whole case,
5 have you seen that, in Mr. Jolly's case, whether there
6 was a potential for any other exposures to asbestos
7 that may have contributed to his accumulated lifetime
8 dose?

9 A There is the potential that he had other
10 exposures, and if he did and one can document that he
11 did have those exposures, I would be sitting here
12 saying those also contributed to his cumulative dose.

13 Q And from the materials that you have reviewed,
14 have you noted any potential exposures or even ones
15 that you said are probable exposures for Mr. Jolly in
16 particular?

17 A I have.

18 Q Can you tell the jury about those?

19 A When he was a young man, he worked for some lumber
20 companies, and he would deliver joint compound to
21 building sites. The way walls are built in this
22 country, you have Sheetrock that's usually
23 four-by-eight feet. You put these Sheetrock pieces up
24 and you have a seam between them, and the so-called
25 joint compound which, in the era that he was doing the

1 delivery, contained asbestos materials. He didn't do
2 the joint compound work, but he may have been present
3 when others were doing it. He also delivered bags of
4 joint compound to worksites. Sometimes paper bags
5 might break and he might have some exposure. So that
6 would have been a potential exposure. Also to
7 chrysotile asbestos.

8 Q And, Dr. Frank, that was, just to clarify, when
9 Mr. Jolly -- before he started working at Duke?

10 A Many years before.

11 Q Okay. And he was a part-time truck driver who
12 delivered products that contained asbestos that came in
13 a bag?

14 A That likely contained asbestos.

15 Q And Mr. Jolly, from the materials you've reviewed,
16 didn't use those products himself?

17 A He did not.

18 Q He didn't mix those products himself?

19 A Correct.

20 Q And so it's a situation where, because he's going
21 to a construction site in part, someone else might be
22 there already doing work with a similar product and he
23 might have had some minutes of exposure in delivery?

24 MR. BOUCH: Objection; leading.

25 THE COURT: It is leading.

1 Please rephrase.

2 BY MS. FARRISE:

3 Q Can you tell us what you have in mind about how
4 long and intensity, proximity, regularity of exposure,
5 let's say, to someone who might happen to be mixing
6 asbestos-containing joint-taping compound on a
7 construction site at the exact moment he's doing
8 delivery?

9 A It's however long it takes him to drop off
10 whatever two or three bags of material might be, or
11 drop it off at the site where somebody is mixing, and
12 would be a very short-term exposure, but clearly a
13 definitive exposure if he had it that would have been
14 contributory as well.

15 Q And how about, you mentioned the joint-taping
16 compound of walls, but how about the Sheetrock itself,
17 the sheets of drywall, does that contain asbestos?

18 A There are some very special drywall materials that
19 contain asbestos, but not for usual construction. That
20 would be asbestos-free.

21 Q And speaking of asbestos-free, Doctor, what is
22 your opinion with regard to -- strike that.

23 Let me ask you to assume that there is a newly
24 constructed nuclear power plant. The construction
25 begins in late 1970, but it's completed by December of

1 1981. Do you have that in mind?

2 A Yes.

3 Q Okay. Do you know what insulation is?

4 A Yes.

5 Q Okay. What is your opinion as to whether or not
6 the insulation that would have been applied in the
7 1979, '80, '81 time period on pipes in a power plant,
8 newly constructed, would be asbestos-containing?

9 A Earlier asbestos was frequently used for such
10 insulation materials. By that era, there were products
11 available that were asbestos-free.

12 Q Did something happen that caused the insulation
13 materials to go asbestos-free?

14 A Yes.

15 Q And what was that?

16 A It was the regulations started by OSHA. OSHA,
17 Occupational Safety and Health Administration, was the
18 first time when it came into being in 1971 and started
19 putting out regulations in 1972 that we had national
20 standards for exposures. Prior to that, we had some
21 state regulations state by state for products. We had
22 some settings in which asbestos was suggested to be
23 worked with in a certain way, but there were no
24 enforcement activities around that. But now with OSHA,
25 and asbestos was one of the first regulations they put

1 in place, we had national regulations. And it became
2 incumbent upon many companies to now do things that
3 would cost them more money, would require them to put
4 labels that said their product contained asbestos, and
5 so more and more products were made that were
6 asbestos-free..

7 I mentioned earlier that there were 3- to 4,000
8 products over the years. There's nothing like that
9 number now, even though it is still a legal product.
10 There's far, far fewer products today in the United
11 States that contain asbestos.

12 Q For the insulation, was there a time period where
13 it went asbestos-free?

14 A Yes.

15 Q And when was that?

16 A Sometime in the 1970s. I don't know the exact
17 year. Joint compound, after the time that Mr. Jolly
18 would have delivered it, was required to go
19 asbestos-free. Certain uses of asbestos -- and, again,
20 it varies, you know, use by use, product by product
21 where they have to go asbestos-free.

22 Q And are you familiar with a product that goes by
23 the brand name Kaylo?

24 A Oh, very much so, yes.

25 Q And, Dr. Frank, what is your opinion as to when

1 the Kaylo insulation product went asbestos-free?

2 A My understanding is that was 1972.

3 Q 1970?

4 A Two.

5 Q So if I ask you to assume that after 1972, there's
6 the new construction of a power plant and workers
7 recalled seeing a product with the brand name Kaylo,
8 what would be your opinion as to the likelihood that
9 that insulation was asbestos-containing?

10 A Very low. I mean, unless you kept something in a
11 storehouse for seven or eight years and then hauled it
12 out, it wouldn't be asbestos-containing anymore.

13 Q You mentioned regulations. Let me just turn to
14 that briefly. If I ask you to assume that the evidence
15 is that Crosby was a manufacturer of valves which had
16 asbestos-containing parts going back to the 1930 time
17 period and that those valves were sold to the Navy for
18 use aboard naval vessels such as USS New Orleans,
19 San Francisco, Minneapolis, and Astoria, what is your
20 opinion as to whether or not that kind of company would
21 have been, first, regulated insofar as it relates to
22 asbestos with OSHA?

23 A They would have certainly been regulated when OSHA
24 came into being if they were still selling asbestos
25 products and clearly had a history of use that would

1 have come under other regulatory recommendations
2 earlier.

3 Q Like what?

4 A The Walsh-Healey Act.

5 Q And what's that?

6 A It's an act that speaks to entities that have
7 government contracts. And it goes back, I believe, to
8 the 1930s when it was a lot more money then. If you
9 got more than \$10,000 from a government contract, you
10 had to follow the regulations under the Walsh-Healey
11 Act, which was the precursor, if you will, to the more
12 general OSHA regulations of later that you should have
13 a safe and healthy workplace. And even by the early
14 1950s they were specifically discussing what the levels
15 of asbestos should be.

16 Q And, first of all, who puts out the Walsh-Healey
17 Act?

18 A The Department of Labor of the United States
19 government. So there was this earlier set of
20 recommended practices for workplaces without these same
21 enforcement rules that came along with OSHA in the
22 1970s, but there were regulatory guidelines for what
23 you should be doing in workplaces if you're getting
24 government monies.

25 Q If you are a government contractor company?

1 A Right.

2 Q And you mentioned that those earlier rules for
3 government contractors from the department of labor,
4 did they mention asbestos in particular?

5 A They did.

6 Q And in addition to mentioning asbestos as a hazard
7 and causing risk for health consequences, did the
8 Walsh-Healey Act include any information about how to
9 prevent, protect, and control exposures?

10 A It did. The principles -- and this comes under
11 the field of industrial hygiene. Now, I'm not an
12 industrial hygienist, but as an occupational physician,
13 I've always worked with industrial hygienists. I've
14 been a consultant with companies. I've worked with
15 industrial hygienists. I've always had an industrial
16 hygiene person in every department that I've been
17 associated with during my career, so I have to know
18 something about industrial hygiene.

19 And the principles of industrial hygiene go back
20 many, many years as to how to make workplaces safer.
21 There was a paper, for example --

22 MR. BOUCH: Your Honor, I'm going to object. This
23 is a little beyond his expertise. Dr. Frank is well
24 qualified as an occupational physician, but he
25 confessed he's not an industrial hygienist.

1 THE COURT: As I understand, the opinion he's
2 offering, it's not as an industrial hygienist himself.
3 He is offering information about the Walsh-Healey Act
4 and what it does regulate, preventative measures with
5 respect to asbestos. That's what I understand him to
6 be taking about. At least that's what I wrote down.

7 Don't get outside your area of expertise,
8 Dr. Frank, and you may continue.

9 Overruled.

10 THE WITNESS: Thank you, Your Honor.

11 I was about to say there was a paper written in
12 1930 by Dr. Meriweather, who was an occupational
13 physician, together with Mr. Price, who was an
14 industrial hygienist which shows the two activities
15 work closely together, so they both take responsibility
16 for what's in that paper. And it talks about how you
17 reduce exposures. And you reduce exposures by, if
18 you've got something that's dusty, you wet it down.
19 You provide good ventilation so that the levels of
20 exposure go down. You provide respirators to people if
21 you can't meet those needs.

22 And, importantly -- this goes back to what they
23 wrote in 1930 -- that workers should be given, to use
24 their phrase, a sane appreciation of the risk of the
25 materials that they're working with. So workers should

1 be educated because then they could take part in
2 protecting themselves if they know that something is
3 hazardous.

4 This is not, again, even something that started
5 with them in 1930. In 1918 there were regulations
6 about the hazards of certain dusts and that you should
7 have two lockers at the workplace so you don't take it
8 home and contaminate your family. That was not a new
9 concept recently. That was well understood. As early
10 as 1918, specifically given the hazards of asbestos
11 that were known at that time, there was an insurance
12 company that stopped insuring the lives of
13 asbestos-exposed workers. So knowledge about the
14 hazards of this material and also knowledge about how
15 to reduce those hazards were known.

16 BY MS. FARRISE:

17 Q By 1930?

18 A Yes.

19 Q For asbestos?

20 A Yes.

21 Q Now, Walsh-Healey comes along about 20 years
22 later, and does it reiterate on government contractors
23 that these things should be done if people are being
24 exposed to asbestos?

25 A Yes.

1 Q I want to -- well, let me ask you since we're in
2 history for a moment. And, quickly, you talked earlier
3 about asbestosis as a disease that asbestos could cause
4 and lung cancer and then mesothelioma, is what I'm
5 going to focus on if I can.

6 Can you tell the jury, what is your opinion as to
7 when in time the medical and scientific and related
8 communities knew that asbestos could cause these
9 illnesses?

10 A Let's look at the three separately. The ancients,
11 and by that I mean the Romans, 2,000 years ago knew
12 about the hazards of asbestos, but nobody reads Latin
13 very much anymore so we'll set that aside, but it was
14 not appreciated thousands of years ago that asbestos
15 was a hazardous material. And the Romans used slaves
16 to mine it for them.

17 The Modern Era starts in the late 1890s in Great
18 Britain when there was a report for Her Majesty's
19 inspector in a factory showing that asbestos was
20 dangerous. And there's a physician, Dr. Montague
21 Murray, who published in 1906 that he had done an
22 autopsy on a young man who died in 1899, finding -- he
23 didn't know what they were. He called them curious
24 bodies in the lung. But he and his nine mates -- ten
25 of them started working in an asbestos textile plant

1 about ten years earlier, and this young man was the
2 tenth and last of that group to die of pulmonary
3 disease.

4 The term -- well, as I've already told you, by
5 1918 there were regulations, at least in the State of
6 Pennsylvania that I'm aware of, about protecting
7 workers from hazardous materials so they wouldn't take
8 it home on their clothes. They should have two
9 lockers. They should have a place to shower. Life
10 insurance, one company stopped selling to
11 asbestos-exposed workers.

12 1924, Dr. Cook uses the term "asbestosis" for the
13 first time. And this now sets off many papers. I
14 mean, clearly the literature -- there was other
15 literature prior to that, but more and more started
16 coming along. 1938, there was a book by Dr. Lanza on
17 silicosis and asbestosis where he's talking about this.

18 And let's now turn to lung cancer.

19 Q Let me just ask you. You said there was a book
20 and there's this and there's that.

21 A Yes.

22 Q How would a person in this time frame become aware
23 of what Dr. Murray was finding and Dr. Cook was saying
24 and this book by Dr. Lanza? What did you have to do?

25 A Go to the library. They're public documents.

1 They're published just like many of my publications.

2 Q But you couldn't punch it up on your smart phone,
3 right?

4 A No, not likely. Or your iPad.

5 Q Talk about lung cancer. Tell us about the
6 development of knowledge for asbestos causing lung
7 cancer.

8 A Well, there is a tie to South Carolina. In 1935,
9 two South Carolinians, Drs. Lynch and Smith, looking at
10 a workforce in an asbestos textile factory, suggested
11 that they were seeing more lung cancer than they would
12 otherwise see. You have to realize that in 1935 there
13 were not a lot of people smoking cigarettes. Lung
14 cancer was a rare and uncommon disease in those days,
15 but they just made the observation that they were
16 seeing more lung cancer out of this plant, and they
17 suggested that asbestos might have something to do with
18 it.

19 Q And let me just stop you there. Drs. Lynch and
20 Smith, were they affiliated with the federal
21 government?

22 A No. They were in practice and looked after
23 workers from that plant and their community.

24 Q Okay.

25 A In 1942, Dr. Wilhelm Heuper, who was head of

1 occupational cancer studies at the National Cancer
2 Institute -- same place I would go work at beginning in
3 1973 -- Dr. Heuper, who was head of occupational cancer
4 studies, wrote a book that he published in 1942 called
5 *Occupational Tumors and Allied Diseases*. And in that
6 book he has a section on asbestos, and he writes that
7 based on his review of what was then known, asbestos
8 should be considered a cause of lung cancer. We didn't
9 have an epidemiological study yet. That is a study of
10 groups of people where you compare a group with
11 exposure, without exposure, and see if there's a
12 different outcome. That came along in 1955. That was
13 Dr. Doll in Great Britain who reported on the
14 experience of an asbestos textile factory sometime
15 between the 1930s and the early 1950s. And whereas he
16 expected there to be four percent of the deaths from
17 lung cancer in that population over that time, he found
18 17 percent. So we now had epidemiological data
19 supporting the idea that asbestos caused lung cancer.
20 There had been individual cases of mesothelioma --

21 Q So was this a done deal in the medical and
22 scientific community by 1955?

23 A Pretty much a done deal.

24 Q How about mesothelioma?

25 A So for mesothelioma, we now go to 1960. Cases of

1 mesothelioma had been reported in the literature. It
2 was an extraordinarily rare disease. The estimate was
3 something like one in a million people would get
4 mesothelioma. In retrospect, people have gone back
5 both at the Harvard Medical School and at my alma
6 mater, Mount Sinai, and looked at the pathology reports
7 from the late 1800s and 1900s and literally don't find
8 any cases of mesothelioma. We start seeing them
9 somewhat beginning in the 1920s and 30s. But
10 individual cases. One maybe every ten years. By the
11 time I did my training in the 1970s at Mount Sinai, we
12 had three or four or five patients in the hospital with
13 that disease at one time. Now, we were a center
14 collecting such people, but it was no longer as rare a
15 disease.

16 So it was quite a shock when, in South Africa,
17 Dr. Wagner reported that in a four-year period, from
18 the North West Cape province where there was an
19 asbestos mine, he saw 33 cases of mesothelioma in a
20 four-year period. So now we had the sort of proof or
21 the relationship between exposure to asbestos and the
22 development of mesothelioma.

23 He went on -- I mentioned earlier some animal
24 studies. He went on to study the different types of
25 asbestos in animals, and he has data from the 1970s

1 when he did animal studies that chrysotile caused as
2 many mesotheliomas as crocidolite, the type that he was
3 seeing in the North West Cape province of South Africa.

4 Q What year did Dr. Wagner's publication of these 33
5 mesotheliomas in a four-year period -- when was that
6 put out to the world?

7 A 1960.

8 Q Okay. And so was Dr. Wagner's paper in 1960, his
9 scientific publication, was that an epidemiological
10 study?

11 A No. It was a case series.

12 Q And what's the difference?

13 A Well, an epidemiological study, you have two full
14 populations and you compare the difference based on
15 their exposure. A case series is a collection of
16 cases. And there are times when you can make
17 conclusions about exposures, particularly things like
18 mesothelioma. We started earlier this morning talking
19 about a signal tumor. The other one that comes to mind
20 right away is a disease called angiosarcoma of the
21 liver, a rare cancer that was looked upon as being
22 caused by a gas called vinyl chloride that was used to
23 make vinyl plastic. Again, that relationship was so
24 unique that it became a different signal tumor.

25 So you don't even need -- and that was based on.

1 three workers out of 600 at one plant instead of what
2 was thought to be one in a hundred thousand people who
3 should get that disease. So it sort of hits you in the
4 face and tells you, you know, there's something going
5 on here.

6 Q These folks, these 33 mesothelioma cases that
7 Dr. Wagner published for the world, what kind of
8 exposure did they have? Are these all worker
9 exposures?

10 A No. I told you they were from the North West Cape
11 province where there were mines. Many of them were the
12 miners, but there were some that lived in the villages
13 and some were family members. So we even knew about
14 that with his report.

15 Q Okay. But what is your opinion, Dr. Frank, as to
16 whether or not, as to mesothelioma, when was it a done
17 deal?

18 A Pretty much with that paper from Dr. Wagner.

19 I pronounce it with a V because he happens to be
20 South African. But as you see, it's spelled with a W.
21 But to be culturally correct, he went by "Wagner."

22 Q So to get our arms around it, is there a different
23 asbestos exposure -- strike that.

24 Is it -- what is your opinion as to whether or
25 not, if you're exposed to asbestos in the workplace,

1 you're at risk for the various diseases? Is it
2 different or the same, or is that back to what you
3 talked about this morning?

4 A Doesn't matter where, what type of asbestos. Once
5 a fiber gets in your body, it doesn't say I'm coming
6 from a piece of textile or an automobile brake or a
7 gasket or a piece of insulation or anything else. It
8 gets into your body and acts like asbestos would in the
9 body, and those people who inhale it, some get one
10 disease; some gets the others. Many people, as I
11 mentioned earlier, we all have some exposure to
12 asbestos, we all don't get disease. But we also are
13 exposed to sunlight on a regular basis. We don't all
14 get skin cancer. We're all exposed to filling up our
15 gas tank which has benzene in it that causes leukemia,
16 but we don't all get leukemia. There are factors, and
17 a lot of it has to do with the dose. It doesn't mean
18 that low levels for some people may not do it. But you
19 don't know ahead of time, and so you have to protect
20 everybody.

21 Q Dr. Frank, I'm going to turn another corner here.
22 You with me?

23 A Yes, ma'am. I'm still here.

24 Q Good. Thank you. I know it's a lot.

25 Let's go back to Mr. Jolly and his medical

1 situation.

2 A Yes.

3 Q Okay. You have had an opportunity to review the
4 medical records pertaining to his treatment and related
5 information?

6 A Some of his records and his testimony, yes, ma'am.

7 Q And what is your opinion with a reasonable degree
8 of medical certainty as to his medical condition?

9 A Well, he's a gentleman who developed a
10 mesothelioma and had a difficult medical course. And
11 given the nature of his disease -- I have been dealing
12 with mesotheliomas, as I said earlier, for almost
13 50 years -- I literally have never seen a cured
14 mesothelioma. So it's a difficult disease to have, to
15 have your doctors treat, and you're facing pretty much
16 an inevitable situation.

17 Q Dr. Frank, what is your expert opinion with a
18 reasonable degree of medical certainty as to what
19 caused Beverly Dale Jolly's mesothelioma?

20 A Clearly what caused Mr. Jolly's mesothelioma were
21 his exposures to asbestos.

22 Q How -- can you describe for the jury what would be
23 referred to as his clinical course of treatment in
24 terms of him being diagnosed and what the doctors have
25 engaged in with him?

1 A Mr. Jolly presented, as many people do, with
2 shortness of breath. That's the most common symptom,
3 often associated with pain or discomfort. He was found
4 to have fluid in his lungs -- his lung, right lung,
5 which is where he had his mesothelioma. That would be,
6 again, very typical in terms of fluid in the lung.

7 Q Let me just stop you on the fluid. How much fluid
8 are we talking about?

9 A You can have a couple of liters, two and a half
10 liters. Think of a two-liter soda bottle. You can
11 have that much fluid in your lung. So your lung is not
12 getting air because it's all being compressed because
13 of the fluid that's there so you're breathing on one
14 lung so you're short of breath, and it's really quite
15 uncomfortable.

16 The progress of his disease was that he had tissue
17 taken, which was diagnosed that he had a malignant
18 pleural mesothelioma. It was large enough that
19 immediate surgery was probably not a wise thing, so he
20 was given several rounds of chemotherapy. That always
21 has side effects. We have newer drugs now than we did
22 40 and 50 years ago when I started with this whole
23 process, but they still have side effects.

24 And, again, different people respond differently.
25 You can get very sick or feel very ill from the side

1 effects. So he had some rounds of chemotherapy. That
2 seemed to diminish the tumor some. At that point
3 surgery was undertaken. The normal surgery for this
4 and what happened with him was you go in and you try to
5 take out as much of the disease as you can. It's
6 called a decortication.

7 Q I was going to ask you, does that surgery have a
8 name?

9 A Yes, it does.

10 Q What is it?

11 A Decortication. And that just means you're
12 stripping out the pleurae. Remember I told you earlier
13 it's like a lining, and you want to go ahead and take
14 that out. Again, not really done for cure, but the
15 more of the tumor tissue, the cancer, you can get out,
16 hopefully the better somebody will do.

17 In his case it involved taking out one of his
18 ribs, spreading his ribcage apart, going in, cleaning
19 out what they could do. And after he was in the
20 hospital, he ended up going home with tubes in him
21 still. He then, I guess, the course was, he fell at
22 one point, was seen at the emergency room, was now
23 found to have developed blood and other materials
24 building up in his chest again, was hospitalized. That
25 had to be taken care of. He was then in a

1 rehabilitation facility to get strength back because, I
2 mean, he's undergone surgery, and he's got a
3 debilitating disease; plus he's just undergone major
4 surgery, plus he's been getting chemotherapy. And, I
5 guess, he probably related this to you, then after
6 that, he ended up now being on an experiment
7 immunotherapy treatment. His doctors are still looking
8 for ways to better treat this disease, which,
9 unfortunately, has not yielded to any kind of treatment
10 doctors have done well with up to this point.

11 Associated with that is shortness of breath. And
12 that's going to be a constant thing. Again, I'm sure
13 he probably told you about whatever pain or discomfort
14 he had requiring, in his case, as most cases, that as
15 the disease progresses, use of pain medications and
16 increasing amounts of pain medication over time, and
17 that it's a very typical course for patients with this
18 disease.

19 When I first started learning about this back in
20 the '60s and '70s, we were dealing on average with a
21 six- to 12-month lifespan. With newer treatments, we
22 can increase that a bit, maybe 18 months, maybe a bit
23 longer.

24 Q From what, 18 months?

25 A To maybe three years.

1 Q From the time that you're diagnosed?

2 A From the time you're diagnosed. But it used to be
3 six to 12 months. Some people get diagnosed and die
4 literally within days. I could probably count on two
5 hands the number of people that have lived more than,
6 I'd say, five years that I'm aware of.

7 Q Dr. Frank, have you had an opportunity, as part of
8 the work that you've done in the case, to review some
9 information about the cost of the medical care that
10 Mr. Jolly has had?

11 A Yes. I've seen some of the medical bills, and
12 they all seem to be in line with what, you know,
13 typical medical costs are. Given the extensive nature
14 of his work, the chemotherapy, the surgery, the repeat
15 hospital visits, the rehab, we're talking, not seeing
16 all the bills, but --

17 Q Well, let me ask you, what is your opinion -- let
18 me back up.

19 What is your opinion as to whether or not
20 mesothelioma, this disease, will ultimately take
21 Mr. Jolly's life?

22 A More likely than not, that's what he'll die from.
23 That doesn't mean he won't get hit by a bus tomorrow,
24 but more likely than not, given his situation, his
25 mesothelioma will be his cause of death.

1 Q And time frame that you have in mind?

2 A Again, it varies.

3 Q He was diagnosed in January of 2015 -- 2016.

4 Sorry. So we are now about a year and seven months.

5 A Right. So, you know, probably no more than a
6 year, maybe less than that. I have not examined him or
7 seen the latest of his medical records, but he's on
8 experimental therapy. They have pretty much given up
9 on the usual stuff, and they're trying something new
10 just to see if it will work. If it does, maybe he will
11 do well, and if it doesn't work particularly well,
12 he'll continuing to go downhill.

13 Q Dr. Frank, given that prognosis, what is your
14 opinion as to whether the surgery, the chemotherapy,
15 and all of the other medical treatments and
16 interventions have been medically necessary to treat
17 his mesothelioma?

18 A Well, you try and do the best you can to give him
19 as long and as good a quality of life, so they would be
20 medically necessary.

21 Q And it's reasonable to do -- for him to have
22 undergone these treatments under the circumstances?

23 A Yes.

24 Q What is your opinion as to what would be the cost
25 of medical care for Mr. Jolly for the care and

1 treatment of his mesothelioma through the time that he
2 might pass away?

3 MR. BOUCH: Objection, Your Honor. Calls for
4 speculation.

5 THE COURT: Very good. Overruled.

6 THE WITNESS: Cases like his with the kind of
7 extensive treatment and surgery he's had, clearly
8 hundreds of thousands. Cases even go to a million
9 dollars or more. So his would be at the high end,
10 given all the things that he's had. Obviously,
11 somebody who comes in, gets diagnosed and dies in a
12 month, their costs are less. He's had ongoing care and
13 extensive care for a long period of time. The surgery
14 alone could be hundreds of thousands of dollars. And
15 then with everything else, he would be at the high end
16 of what these kinds of cases cost.

17 BY MS. FARRISE:

18 Q And, Dr. Frank, to some extent you're limited
19 because you can't predict how many more
20 hospitalizations he's going to have, et cetera,
21 correct?

22 A How many more treatments he's going to have, how
23 many more visits to the doctor, how many more scans of
24 his chest and so forth.

25 Q But as it relates to the typical and ordinary

1 course of pleural mesothelioma, is it atypical in any
2 way that, closer to the time that someone were to
3 actually pass away, that the medical interventions get
4 to be more intense, hospitalizations and things like
5 that?

6 A Yes.

7 Q And why is that?

8 A Because the condition deteriorates. There's more
9 you will have to do. Sometimes additional feedings,
10 you might have to put a feeding tube in, you might have
11 to give special feedings intravenously. And, again, at
12 some point somebody may decide to go into hospice, and
13 then the cost of the treatments go down, but the cost
14 of hospice is there instead.

15 Q You mentioned the surgery. And I just want to
16 come back to it. Decortication surgery. Is that, for
17 lack of a medical term, a big surgery or a small
18 surgery?

19 A It's a big surgery.

20 Q Is it life-threatening surgery, just in and of
21 itself?

22 A Any surgery potentially is life-threatening, but
23 it's certainly a lot more life-threatening than having
24 a bunion removed.

25 Q Can you explain to the jury a little bit more

1 about what that procedure is that Mr. Jolly underwent?

2 A Well, as I mentioned earlier, it's cutting in
3 through the ribs, and in his case taking a rib out,
4 spreading it, taking and scraping out as much of the
5 tissue or pulling it out as you can. It leaves it open
6 and raw, so there's pain with that afterwards. And
7 then tubes are left in for drainage. That also opens
8 it up for possible infection. So that is all -- this
9 is big-time surgery.

10 Q And you mention that you had an opportunity to
11 review the testimony that Mr. Jolly gave a year ago
12 about his work in large part. When was he deposed in
13 connection with the big, major surgery? Was that the
14 same time frame?

15 A It was later. He's had two sets of depositions,
16 one about his work, and then one in case he couldn't be
17 here at trial, but he was.

18 Q And as part of this surgery, did they do any more
19 biopsy of tissue?

20 A I'm sure. Any time you take tissue out of people,
21 you, again, send it to the pathologist to look at, and
22 there seems to be no question they're dealing with a
23 mesothelioma.

24 Q And you mentioned that this doctor, I think it was
25 Cook or Murray, found these curious bodies. Remember,

1 back in the 19-whatever it was. I'm sorry, I don't
2 have it handy. I'm trying to rush.

3 A 1906.

4 Q Thank you. What are those as it relates to
5 asbestos, and how do they relate, if they do, to
6 Mr. Jolly?

7 A They're now called either ferruginous bodies
8 because they're coated with an iron and protein matrix,
9 or they're called asbestos bodies because they're on a
10 core of asbestos.

11 Now, other things can create these so-called
12 ferruginous bodies, but when you have somebody who's
13 been exposed to asbestos, it's likely the fibers that
14 end up being coated -- and there are a very small
15 number of these compared to the total number of fibers
16 that somebody has in them -- they tend to be sort of
17 the larger fibers that this will happen to. And for
18 every one of these coated fibers, you may have
19 thousands and thousands of uncoated fibers. But you
20 can look for them in tissue.

21 Q And in Mr. Jolly's case and based on your review,
22 did they find any of these asbestos bodies?

23 A They did. The tissue that they found it in was
24 one of his lymph nodes. They found evidence of a
25 couple of these in his lymph nodes.

1 Q A couple, you mean two?

2 A Two. But that can be significant.

3 Q What is your opinion as to the significance of
4 finding two asbestos bodies in Mr. Jolly's lymph node
5 tissue that was taken out of him during this surgery?

6 A Well, you can look at different tissues. Not all
7 that many people over time have looked at lymph nodes,
8 but when it is looked at, it tells you that if you're
9 finding it in lymph nodes, which is not something I
10 would expect to find in you or me, not having worked
11 with asbestos in a way like Mr. Jolly did, but to find
12 it there is meaningful and significant that he had more
13 than sort of background exposure.

14 Q Okay. And does a finding of two asbestos bodies
15 in his lymph node tissue tell us that he was exposed to
16 asbestos?

17 A Yes.

18 Q Dr. Frank, does the finding of two asbestos bodies
19 in his lymph node tissue tell you when he was exposed
20 to the asbestos that's in the asbestos bodies?

21 A You don't know when, you don't know from what
22 product, you don't know when those asbestos bodies were
23 formed, just as you wouldn't if you looked for asbestos
24 fibers that weren't coated.

25 Q You mentioned at the beginning of your testimony

1 that if someone came into your office and said, "I was
2 exposed to asbestos two weeks ago. Am I going to get
3 sick?" you would have no way of knowing. Do you recall
4 that?

5 A Correct.

6 Q With these asbestos bodies, are you able to say or
7 is medical science able to say whether or not they're
8 from asbestos exposures he may have had in the air five
9 years ago?

10 A You don't know when, to which fibers, on what day,
11 from what product.

12 Q What is your opinion, Dr. Frank, as to what would
13 have been Mr. Jolly's normal life expectancy if he had
14 not been diagnosed with mesothelioma being a 71, I
15 think it was at the time, 71-year-old man?

16 MR. BOUCH: Objection, Your Honor. That's a
17 matter of statute in South Carolina.

18 THE COURT: Well, it is a matter of statute, and
19 the statute can, certainly be read into the record, but
20 if he has an opinion.

21 MS. FARRISE: Let me rephrase, Your Honor.

22 MR. BOUCH: Your Honor, I'd like to be heard on
23 that one.

24 MS. FARRISE: Okay. So is there a table? I
25 withdraw, Your Honor. He doesn't have to be heard.

1 Q Dr. Frank, you doing okay?

2 A I'm fine. Just waiting for the next question.

3 Q I want to go back for a brief moment to this issue
4 of knowledge and what was available in the publicly
5 available medical and scientific literature. Okay?

6 A Yes.

7 Q The question was raised, and maybe you have an
8 answer. I want you to assume that Crosby Valve Company
9 and Fisher Controls valve companies started before 1930
10 manufacturing valves that contained asbestos
11 components, gaskets, and packing. Are you with me?

12 A Yes.

13 Q And assume that those companies designed the
14 valves, and they made the choice to include asbestos in
15 those valves as opposed to whatever else they could
16 have chosen. Are you with me?

17 A Yes.

18 Q And I want you to assume that the valves were
19 designed to have a flange face such that it is
20 foreseeable that they are going to be attached to
21 something if they are to have any function. Are you
22 with me?

23 A Yes.

24 Q And so the flange face -- strike that.

25 And assume that these valves would be used in

1 power plants and other industrial-type settings and
2 applications. Are you with me?

3 A Yes.

4 Q And that the gaskets which would need to be used
5 on those flange faces to connect it to piping systems
6 would be these asbestos-containing flange gaskets that
7 we've been talking about. Do you have that in mind?

8 A I did.

9 Q As the manufacturer -- oh, let me also ask you to
10 assume that these manufacturers understood that the
11 flanges would be broken from time to time for purposes
12 of repair or inspection or maintenance.

13 And I also want you to assume that, for that
14 reason, those companies had another business selling
15 replacement asbestos-containing gaskets to be used as
16 part of the maintenance work with their valves after
17 they were sold. Do you have all that in mind?

18 A I do.

19 Q So the question I have is what is your opinion,
20 Dr. Frank, as to what Crosby Valve Company or Fisher
21 Controls could have told Duke Power in 1979 or 1980
22 about whether there was a hazard from the regular
23 foreseeable maintenance of valves that they had sold to
24 Duke Power?

25 MR. BOUCH: Objection, Your Honor. Incomplete

1 hypothetical, assumes facts not in evidence.

2 THE COURT: I didn't understand.

3 MR. BOUCH: Same objection I've been making for
4 the record, Your Honor. Assumes facts not in evidence,
5 incomplete hypothetical.

6 THE COURT: Overruled.

7 THE WITNESS: What could have been shared by the
8 companies supplying asbestos-containing materials was
9 that their product contained asbestos, and that
10 asbestos was known to be hazardous, and that the people
11 working with their product should be cautioned about
12 it, about using that product, about liberating dust,
13 and if they were going to do that, to do it in a manner
14 that would reduce their exposures.

15 BY MS. FARRISE:

16 Q What is your opinion as to whether by 1980, when
17 Mr. Jolly started to work in areas where
18 asbestos-containing gaskets were removed from Crosby
19 and Fisher flanges, was it already known then that the
20 only safe level is zero?

21 A Yes. It's not just for asbestos that the only
22 safe level was zero. It was actually an asbestos
23 company medical director that talked about the only
24 safe level being zero, and an organization called the
25 American Petroleum Institute in 1948, talking about a

1 different cancer-causing agent, benzene, said the only
2 safe level was zero. So the concept of carcinogens,
3 cancer-causing agents, having no safe level was
4 certainly established by the time Mr. Jolly went to
5 work in 1980 at Duke Power.

6 Q What is your opinion, Dr. Frank, as to whether or
7 not asbestos-containing gaskets are encapsulated
8 product?

9 A Encapsulated means that the asbestos is bound up
10 with other materials. A new gasket, when you put it
11 in, is an encapsulate material. There are varying
12 amounts of asbestos, and they are held together with
13 other materials, rubberized materials, whatever. So
14 they go in as something that's encapsulated.

15 But during the normal use of that product, they
16 deteriorate. Most asbestos products will deteriorate.
17 Your car brake, for example, if it had asbestos in it,
18 you know, isn't giving up a lot of fibers as you're
19 working with it, though it does have some. But as the
20 dust comes off the brake, more and more fibers are
21 being liberated because it's being broken down. And
22 that's what happens with these gaskets. They don't
23 stay in their original state. And so the removal and
24 then using scrapers and electric equipment to burnish
25 out these materials certainly will create dust,

1 liberating individual fibers that are no longer
2 encapsulated.

3 Q Going back to what Crosby and Fisher could have
4 told Duke power in 1980 or so about the
5 asbestos-containing gaskets that it was selling to it
6 as replacement parts -- are you with me in terms of
7 that time frame?

8 A Yes.

9 Q By that time frame, Dr. Frank, were products that
10 were not encapsulated, capable of removing or
11 liberating, freeing asbestos fibers, required to have a
12 warning about that?

13 A Yes. We talked earlier. Warnings were required
14 when OSHA regulations came in.

15 Q And there were some products that were exempted
16 from the warning label requirement, correct?

17 A Yes.

18 Q What would need to be demonstrated by a company
19 selling those products in order to get that exemption?

20 A To get that exemption, the company making those
21 products would have to demonstrate that their product
22 didn't give off asbestos.

23 Q Under what circumstances?

24 A Under normal use, and that would include putting
25 in and taking out of such products.

1 Q And have you seen, among the materials that you've
2 been provided in this case or any other, read in the
3 medical, scientific, industrial hygiene publicly
4 available literature that the Crosby Valve Company, who
5 sold replacement gaskets and sold them and specified
6 them with their valves, or the Fisher Control Company,
7 ever demonstrated or even sought to demonstrate by
8 testing that their products did not liberate, free
9 asbestos fibers?

10 MR. BOUCH: Objection; leading, and a 403
11 objection.

12 THE COURT: Overruled.

13 THE WITNESS: I'm not aware. I have never seen
14 anything that either Crosby or Fisher did any testing
15 of their product with regard to liberation of asbestos
16 in any way, shape, or form.

17 BY MS. FARRISE:

18 Q Dr. Frank, what do you have to do, what kind of
19 testing can be done to determine whether or not your
20 product is exposing folks to asbestos under conditions
21 of normal use, installation, and removal?

22 A You either go out to a workplace and do it as
23 people are actually using your product, or you set up a
24 laboratory experiment that mimics what goes on in
25 workplaces as people have done with other materials and

1 measure to see what comes off. It can be done and it
2 has been done for other materials.

3 Q In the absence of any testing whatsoever, what is
4 your view on whether a company can honestly say that
5 their product was encapsulated?

6 A Well, I think it speaks for itself. It may be
7 encapsulated when it goes in, but in the course of
8 taking it out, I don't think you should be able to say
9 that it continues to be encapsulated.

10 Q Are the asbestos fibers which cause disease
11 something that we can see with our naked eyes?

12 A No. They're too small. In fact, if you see dust
13 from an asbestos product, you're dealing with levels
14 that are generally quite high. It also depends on the
15 percentage of asbestos in the product. But you can be
16 exposed to significant levels of asbestos and never see
17 it in the air. So you can't see it; you can't taste
18 it; it doesn't smell. I mean, there's no way to know
19 that you're in an asbestos-contaminated environment
20 unless you see dust, and then you're dealing not with
21 high levels, but potentially very high levels.

22 Q So in this particular case where Mr. Jolly and
23 other folks who were there, who have given testimony,
24 report seeing visible dust emitted from the processes
25 that occurred to remove gaskets from flange facings,

1 does that fact alone, that they saw the dust from a
2 product known to be up to 90-percent asbestos, say
3 anything to you, Dr. Frank, about the levels of
4 exposure?

5 MR. BOUCH: Leading, Your Honor. Objection.

6 THE COURT: Very good. Overruled.

7 THE WITNESS: It tells me that the levels could
8 have been very high.

9 MS. FARRISE: And I am very sorry. I'm going to
10 go full circle.

11 Your Honor, I would like to mark for
12 identification Plaintiffs' Exhibit 936-2, and I have a
13 copy for defense counsel.

14 (WHEREUPON, Plaintiffs' Exhibit Number 936-2 was
15 marked for identification.)

16 MS. FARRISE: And we would offer into evidence
17 what is the general report of Dr. Frank as to his
18 opinions in the Jolly case.

19 THE COURT: Yes, sir.

20 MR. BOUCH: I object, Your Honor. This is an
21 affidavit that Dr. Frank and a plaintiff's lawyer name
22 Christian Hartley put together three years ago, before
23 he was even retained in this case. It does not mention
24 Mr. Jolly at all. I think this is impermissible under
25 *Woodward vs. Farm Bureau*, and it's a self-serving

1 affidavit, should not be admitted into evidence. If
2 they want it as a demonstrative evidence not to go to
3 the jury, fine.

4 THE COURT: Very good. Let me see the exhibit.

5 (WHEREUPON, a bench conference was held off the
6 record in the presence of the jury, but out of the
7 hearing of the jury.)

8 THE COURT: As I understand the *Woodward* case, the
9 *Woodward* case has to do with the admission of a letter
10 that dealt with settlement, and that is the reason it
11 was viewed as prejudicial. That's what my
12 understanding is, looking at this case.

13 MR. BOUCH: Your Honor, I was there. It involved
14 a self-serving affidavit. The document was admitted
15 into evidence in support of Dr. Woodward's case, and it
16 was reversed 5-0 by the supreme court.

17 THE COURT: Right. But Dr. Woodward's case was a
18 case involving his claim of libel and so forth.

19 MR. BOUCH: That's correct.

20 THE COURT: So this is -- the reason it wasn't
21 allowed to be admitted was because it talked about
22 settlement. I don't think it pertains here.

23 This is a learned treatise, as I understand it, an
24 affidavit in the form of a learned treatise that talks
25 extensively about Dr. Frank's opinions about the

1 hazards of asbestos and data from studies with regards
2 to asbestosis, lung cancer, pleural disease, and
3 mesothelioma. That's what I understand this document
4 to be.

5 It's not a document that opines about Mr. Jolly
6 specifically. It is a scientific -- a big scientific
7 study that Dr. Frank has done that expresses his
8 opinions about mesothelioma and other asbestos-related
9 diseases. That's what I understand this to be.

10 MS. FARRISE: That underpin all of these things
11 that he has discussed today and which, therefore,
12 allows him to say what he has said about Mr. Jolly.

13 THE COURT: Well, all right.

14 If the objection is an objection based on
15 *Woodward*, then I will overrule the objection and admit
16 it.

17 I'll study it in more detail to make an opinion as
18 to whether or not it needs to go to the jury and
19 whether they or I need to read all of this material,
20 but I'm going to admit it, and then we'll talk later on
21 about how it can be used in the course of the trial.

22 But the objection is an objection based on
23 *Woodward vs. South Carolina Farm Bureau* supreme court
24 case of 1981, and I overrule that objection.

25 MR. BOUCH: Your Honor, further, this is a -- as

1 Your Honor has described it, it is a learned treatise
2 and a demonstrative exhibit. It can be admitted into
3 evidence, and I understand your ruling, but it cannot
4 go to the jury.

5 THE COURT: I think you might have heard me say,
6 so let me just repeat it if you didn't understand what
7 I said, I understand that exactly, and that's why I
8 said it's going to be admitted as a piece of
9 demonstrative evidence.

10 Whether it is submitted to the jury is something
11 I'll give a little study to after I look at it. I
12 agree with you completely, but it's going to be
13 admitted as a piece of demonstrative evidence, and it
14 may be that it's going to be relied on by Dr. Frank in
15 some more testimony or by other witnesses. I don't
16 know. But the initial objection remains overruled.
17 It's admitted, and we'll make a decision at a future
18 time in the trial about exactly how it would be
19 utilized.

20 (WHEREUPON, Plaintiffs' Exhibit Number 936.2 was
21 admitted into evidence.)

22 MS. FARRISE: Thank you, Your Honor. And merely
23 to complete a matter of housekeeping, may I ask the
24 court --

25 THE COURT: Let me give everybody back their

1 documents.

2 MS. FARRISE: You can keep it for now. We have a
3 copy.

4 THE COURT: Yes, but Mr. Bouch does not have his.
5 Mr. Bouch, come get yours.

6 MR. BOUCH: I'll be glad to have it, Your Honor.
7 I've had one for years.

8 THE COURT: Thank you for your patience, jury.
9 All right. You may proceed.

10 MS. FARRISE: Thank you, Your Honor.

11 May I ask that the court mark and admit the
12 hand-drawn charts of Dr. Frank that he prepared in
13 connection with his testimony today as Plaintiffs'
14 Exhibit 936.4?

15 MR. BOUCH: Your Honor, I object because what has
16 been written is not necessarily complete based on the
17 testimony he gave the jury. The jury understands that.
18 I believe it's entirely improper to admit partial notes
19 into evidence.

20 If they want to mark them as demonstrative
21 exhibits, I have no objection.

22 THE COURT: Let's mark them as demonstrative
23 exhibits, and if we have got any thoughts they need to
24 go back to the jury, we can deal with that at that
25 time, but they're admitted as a piece of demonstrative

1 evidence.

2 (WHEREUPON, Plaintiffs' Exhibit Number 936.4 was
3 marked for identification.)

4 (WHEREUPON, Plaintiffs' Exhibit Number 936.4 was
5 admitted into evidence.)

6 BY MS. FARRISE:

7 Q Dr. Frank, thank you for your patience.

8 The opinions that you have expressed today, have
9 you expressed them as an expert with a reasonable
10 degree of medical certainty?

11 A I have.

12 Q Thank you, Dr. Frank. For now, those are all the
13 questions that I have.

14 MR. BOUCH: Your Honor, do you want me to start or
15 after lunch?

16 THE COURT: Well, my thinking is don't break up
17 your cross-examination; if it pleases the jury, I'll
18 let y'all go to lunch, and then you can hear the entire
19 cross-examination without it being chopped up into
20 pieces.

21 So let's declare a recess. And let me give some
22 cogitation. We're at 12:30. Now let's be here at
23 quarter of 2:00, if we could.

24 Let the jury retire first.

25 (WHEREUPON, the jury exited open court at

1 12:30 p.m.)

2 THE COURT: All right. Before we retire for the
3 lunch break, anything I need to be apprised of or any
4 issues, concerns, et cetera?

5 I'm going to try to drive you through the rest of
6 this expert testimony and the Taylor matter if I can
7 today. I can tell you that right now.

8 MS. McVEY: We're excited about getting that done.

9 Your Honor, we're not going to talk to Dr. Frank
10 about any testimony, but would it be okay if he came to
11 lunch with us?

12 THE COURT: All right.

13 Troops, do y'all have complete faith in the honor
14 and integrity of these lawyers that they can take him
15 to lunch?

16 MR. BOUCH: Dr. Frank and I are old rats in the
17 barn, Your Honor. We have been through this a lot of
18 times. I am confident they couldn't corrupt his
19 testimony if they tried.

20 THE COURT: Thanks very much for that, Mr. Bouch.
21 No troubles. No dilemmas. All right.

22 MR. HOLDER: Your Honor, I'm going to meet and
23 confer again over lunch on the read-in part, second
24 volume of Mr. Taylor's deposition.

25 THE COURT: If you and Mr. McLeod can get

1 together, that would be wonderful.

2 MR. HOLDER: Right. So when we come back from
3 lunch, we may have a couple of objections we need you
4 to rule upon.

5 THE COURT: All right.

6 (WHEREUPON, lunch recess was taken from 12:30 p.m.
7 to 1:53 p.m.)

8 THE COURT: All right. Ladies and gentlemen,
9 we've got several things to do before we get started.

10 Before I get to this motion to quash, let me,
11 first of all, clarify a couple things.

12 With regard to the mortality tables, the mortality
13 tables can be recognized and used, but they're not
14 exclusive. If a witness such as Dr. Frank wants to say
15 what he thinks the life expectancy without cancer is,
16 I've looked at that rather thoroughly, and he can do
17 that. So I invite your attention to the considerable
18 case law there is, Mr. Bouch, on the subject of the
19 mortality tables, but the statute itself says "may."
20 So I don't think the mortality tables are any
21 limitation on the questions that would be asked a
22 qualified-to-answer witness about the life expectancy.
23 That's the first thing.

24 Second thing is, just to make clear, Dr. Frank's
25 thing is a learned treatise. It's demonstrative. It's

1 not going back to the jury, but it will obviously be
2 used potentially by some of the witnesses to talk about
3 various things and maybe the lawyers in their
4 arguments. So that's the status of that.

5 Motion to quash. This is a motion to reconsider
6 the oral denial of the motion to quash plaintiffs'
7 trial subpoena. I don't have time to sit here and
8 write up a big, long order about this thing. I haven't
9 changed my mind. The Rule 45 has been complied with by
10 the service. The service is on counsel for a party.
11 These corporate representatives are corporate
12 representatives of the parties, and so I see no
13 problem, and I expect them to honor the subpoenas and
14 be here tomorrow as per the subpoenas to testify.

15 If there's anything further that needs to be said
16 on that topic, please go forward.

17 MR. McLEOD: Your Honor, we're happy to rely on
18 our pleadings and the motion.

19 THE COURT: Very good. I mean, I just haven't got
20 time right now to give you the nice, detailed order
21 that you might like on this subject because we are
22 right in the middle of the trial, but I've not changed
23 my mind about what to do about it.

24 MR. McLEOD: I understand, Your Honor. Thank you.

25 MR. BOUCH: Your Honor, one thing, and I'm going

1 to be real brief, and I expect Your Honor will be just
2 as brief.

3 We moved in limine last week to prevent Dr. Frank
4 from testifying as to each and every exposure, which I
5 believe he did this morning. You denied that motion.

6 THE COURT: That's right.

7 MR. BOUCH: Pursuant to your earlier rulings, we
8 presume that is a final order?

9 THE COURT: Yes. You're protected. If what
10 you're worried about is protection on appeal, you're
11 completely protected on appeal. I really think, even
12 though that was done pretrial on a motion-in-limine
13 basis, I will consider that for these purposes you have
14 renewed the objection when Dr. Frank testified. Unless
15 I hear some screaming from the other side, that's what
16 I'll regard it. My ruling would be the same as it was
17 when we heard these matters on the motion in limine.

18 MR. BOUCH: We considered that last week a final
19 order, but I just wanted to confirm it on the record.

20 THE COURT: Exactly. No problem.

21 MR. BOUCH: One more thing. I would move to
22 strike that testimony, now that it's been given, under
23 the same grounds as previously expressed in our motion
24 filed last week.

25 THE COURT: Right. And I would make the same

1 ruling that it's appropriate testimony to come in,
2 overrule the objection and deny the motion to strike.

3 MR. BOUCH: I understand, Your Honor. Thank you.

4 THE COURT: I think we have got the record all
5 cleared up about that.

6 Ms. Farrise.

7 MS. FARRISE: I just needed some clarification,
8 Your Honor. I had raised, just not in a big deal but
9 at the bench, that I thought Mr. Bouch's objection
10 about the learned treatise, that it's something he
11 prepared with the plaintiff's attorney, all of that was
12 said in front of the jury, what qualifies as a speaking
13 objection. And Judge Hill's standing pretrial order
14 that I read says no speaking objections.

15 THE COURT: Well, I think that's a point
16 well-taken.

17 And in the future, don't do that where the jury
18 can hear it, Mr. Bouch. Or Ms. Farrise or anybody
19 else. I agree with that. I had my mind on depositions
20 and speaking objections therein, but, yeah, let's not
21 try to invite the jury into our corner of the world
22 about these objections.

23 Let's come up here to the bench and do that. And,
24 if necessary, Diane can always come up here with me and
25 take down anything that needs to be put on the record.

1 So we got it kind of way over here to do that. Hers is
2 portable, and she can come right over here if we need
3 to do that.

4 MR. BOUCH: Your Honor, I understand perfectly. I
5 believe Judge Hill's order was, maybe not explicitly,
6 but what he had in mind was Rule 43(i) about objecting
7 after the court has made a ruling.

8 THE COURT: That was one of Walt Bristow's
9 favorite rules. If you all know Walt Bristow. I tried
10 many cases with him, but that was his favorite.

11 Anyway, I think we are resolved on that. It won't
12 happen again, Ms. Farrise. Frankly, I don't think the
13 jury was following a whole lot of excitement about that
14 one way or another. I do not think they wanted the
15 burden of having to read all those documents. They
16 looked a little relieved when that ruling was made.

17 Mr. Holder.

18 MR. HOLDER: Just a couple of things on page-line,
19 and I think that we'll be set on that and the video
20 will be ready to go. Mr. Taylor's deposition.

21 THE COURT: Yes, I'm aware.

22 MR. HOLDER: Okay. Two real things are the only
23 issues that I have, and I just need to make a record.
24 I understand you may rule against them.

25 First one is the first designation in Volume 2,

1 and it starts at 262, and it goes from Line 4 to 263,
2 Line 8. And basically the objection here is Mr. Taylor
3 seems confused.

4 THE COURT: I'd overrule the objection.

5 MR. HOLDER: The only other issue is near the end.
6 And I want to thank defense counsel on the record for
7 making the effort they did to meet and confer with me
8 today and striking testimony that they had designated.

9 But along those lines, one issue that I do have is
10 starting at 410, Line 25 down at the bottom and going
11 on to 411, and it pretty much goes on the highlighted
12 designations all the way --

13 THE COURT: This is about Crosby valve and it
14 being on the side of the pump in raised letters.
15 What's the problem?

16 MR. HOLDER: They're withdrawing the testimony.
17 It was their affirmative designation that I had
18 countered within it. We would request that that not be
19 withdrawn. I've been working under the assumption that
20 that testimony is --

21 MR. McLEOD: So you want to designate it?

22 MR. HOLDER: Yes, I would like to keep it in.

23 THE COURT: You can designate it. You can let it
24 in. My idea is let it in both sides.

25 MR. McLEOD: Your Honor, that's great. And if the

1 court's ruling is such, we were just trying to reduce
2 the amount that the jury had to suffer through. In
3 Volume 1 of the video deposition that we're about to
4 play, the defense would like to designate another
5 section of testimony that is a half page long.

6 THE COURT: Let's just let it all in.

7 MR. HOLDER: Where is it?

8 MR. McLEOD: We already talked about it.

9 MR. HOLDER: Which page and line?

10 MR. McLEOD: We'll just read it.

11 MR. BOUCH: Your Honor, could we do this later?
12 I'm trying to get Dr. Frank to a 3:30 airplane.

13 MR. HOLDER: That was the last one.

14 THE COURT: You know, that's very kind of you.
15 Dr. Frank is not even your witness.

16 MR. BOUCH: I'm going to run into him again. I
17 don't need him mad.

18 MR. McLEOD: Thank you, Your Honor.

19 THE COURT: All in place? All comfortable?
20 Bring in the jury.

21 (WHEREUPON, the jury entered open court at
22 2:03 p.m.)

23 THE COURT: Please be seated. Thank you so much.
24 I hope you had a pleasant lunch. My clerk and I
25 finally found a "meat and three" in this town, so we

1 had a great lunch.

2 We'll continue this afternoon beginning with the
3 cross-examination of Dr. Frank.

4 Mr. Bouch.

5 MR. BOUCH: Thank you, Your Honor. May it please
6 the court.

7 CROSS-EXAMINATION

8 BY MR. BOUCH:

9 Q Dr. Frank, good afternoon.

10 A Good afternoon, Mr. Bouch.

11 Q Nice to see you again. I know you have travel
12 plans, so I'll try to be quick.

13 A Thank you. I'm lecturing tomorrow in Galveston.

14 Q You're not a treating physician of the plaintiff?

15 A I was not.

16 Q You've never met Mr. Jolly nor his family nor his
17 doctors?

18 A Correct.

19 Q You haven't talked with any other experts in the
20 case?

21 A Correct.

22 Q You have only dealt with the lawyers in the case?

23 A Yes.

24 Q Okay. And I believe you first dealt with a
25 Mr. Graham from North Carolina?

1 A Yes.

2 Q And I believe that he sent you the case initially
3 in early 2016, and you issued a first report March 11th
4 of 2016?

5 A Yes.

6 Q About six weeks or so after Mr. Jolly was
7 diagnosed?

8 A Yes.

9 Q Okay. And I believe you had medical records, you
10 had a work history at Duke that indicated he was
11 exposed to asbestos generally and that he had a
12 diagnosis of asbestos-related meso, and it was your
13 opinion it was to any and all products he may have been
14 exposed to?

15 A Yes, sir.

16 Q And it was a very short page and a half?

17 A That's all it takes to give my opinions, along
18 with the affidavit that supports them.

19 Q About a month ago your deposition was taken?

20 A It was.

21 Q And that was following an additional letter from
22 Mr. Holder now, who took over the case?

23 A Yes.

24 Q You received the deposition of Dr. Oury?

25 A Yes.

1 Q And the exhibits to his deposition including his
2 microphotographs?

3 A Yes.

4 Q Mr. Jolly's deposition, at least part of it?

5 A Two sets of his depositions, yes.

6 Q All four volumes?

7 A Yes. Two discovery, two testimony for trial.

8 Q Dr. Maddox's deposition?

9 A Yes.

10 Q Georgia Pacific Corporation's answers to
11 interrogatories?

12 A Yes.

13 Q And Mr. Jolly's answers to interrogatories?

14 A Yes.

15 Q And in that correspondence with Mr. Holder, he
16 told you of additional exposure?

17 A Yes.

18 Q And that additional exposure was Mr. Jolly spent
19 about two years working for a Reeves lumber -- is it
20 Reeves -- Getty's Lumber Company, unloading and loading
21 bags of joint compound?

22 A Yes, what I told the jury about this morning.

23 Q Right. Paper bags that would break, and it was
24 very dusty?

25 A I didn't say paper bags, but it probably was.

1 Q Well, in your deposition.

2 A Okay.

3 Q Okay. I think you --

4 A In that period of time they wouldn't have been
5 using plastic bags.

6 Q Just so there's no -- "handled paper bags of joint
7 compounds which would occasionally rip or have dust
8 associated with them"?

9 A Yes.

10 Q Is that fair? Okay.

11 And would it be fair to say, Doctor, that your
12 first report where you just received general
13 information on Mr. Jolly's exposure at Duke, it could
14 be argued that your opinion went to the insulation
15 which would be common in a power plant?

16 A It would have been to whatever exposures he had,
17 and as you correctly stated from my letter, it was any
18 and all exposures of any product of any fiber type.
19 Whatever can be documented that he actually had, I
20 would be sitting here telling you it was a substantial
21 contributing cause to his disease.

22 Q Right. I guess my point was the information you
23 were initially supplied was insulation and nothing
24 else?

25 A Probably that was the case initially.

1 Q Okay.

2 A As you said, it was right after he had been
3 diagnosed. They were probably still collecting
4 information. Turns out there were other exposures.

5 Q Okay. Now, so we had insulation and then we took
6 your deposition about a month ago. And the focus, I
7 think there was on the Georgia Pacific exposure because
8 the bags of joint compound Mr. Jolly spent two years
9 unloading were manufactured, I think you said,
10 50-percent Georgia Pacific and 50-percent Kaiser
11 Gypsum?

12 A Right.

13 Q And the exposure -- it was your opinion that the
14 exposure to that joint compound in and of itself was
15 sufficient to cause his mesothelioma?

16 A Correct. If that had been his only exposure,
17 that's what I would be saying.

18 Q Doctor, I'm going to ask you if you could identify
19 this.

20 Have you ever seen it before?

21 A Yes. It's one of the -- here is my copy that was
22 sent to me. It's a picture that Dr. Oury took of one
23 of the ferruginous or asbestos bodies.

24 Q Okay. And I'll ask you to do the same thing with
25 the next document.

1 A The smaller one.

2 Q All right. And you've seen these before?

3 A I have.

4 Q You routinely rely on such information when
5 forming your opinions and doing your diagnostic work?

6 A To the extent that one -- that it is appropriate
7 to do so, yes, sir.

8 Q Okay. Well, in this case, describe what it is.

9 A Well, can I show it to the members of the jury?

10 Q No, no, no. Can't do that. I haven't moved it in
11 yet.

12 A Sorry. Well, it's of what appears to be a fiber
13 that's coated blue with some lumps and bumps on it
14 which are fairly typical of what we talked about this
15 morning, ferruginous or asbestos bodies.

16 Q And these were taken from Mr. Jolly, is your
17 understanding?

18 A They were taken from a lymph node from Mr. Jolly.
19 Not from his lung, not from his pleural tissue but his
20 lymph node.

21 THE COURT: Your Honor, I would like to admit
22 Exhibits 153 and 154.

23 THE COURT: Without objection?

24 MS. FARRISE: No objection, Your Honor.

25 THE COURT: Without objection, admitted.

1 (WHEREUPON, Defendant's Exhibit Numbers 153 and
2 154 were admitted into evidence.)

3 BY MR. BOUCH:

4 Q The ferruginous body that you were describing is
5 that long, baton-shaped thing, Doctor?

6 A Yes.

7 Q Okay. All right. And, Doctor, in your
8 experience, is it true that over 90 percent of the type
9 of fiber within those ferruginous bodies is typically
10 an amphibole asbestos fiber?

11 MS. FARRISE: Objection, Your Honor. The question
12 violates an in-limine ruling.

13 (WHEREUPON, a bench conference was held on the
14 record in the presence of the jury, but out of the
15 hearing of the jury as follows:)

16 THE COURT: What in-limine objection, I mean, are
17 we talking about?

18 MS. FARRISE: There was a motion in limine as to
19 Dr. Oury, which is currently the subject of our pending
20 motion for sanctions. The court's ruling in limine is
21 that Dr. Oury could not talk about what the fiber type
22 might be in this ferruginous body because he had not
23 done the digestion testing and the x-ray defraction.

24 So given that, counsel went, as you know, to
25 Pittsburgh and asked the question anyway. Now, here we

1 are with plaintiffs' expert who, of course, himself
2 didn't do any digestive testing and no one has. It
3 wasn't just --

4 THE COURT: Is this the slide that was an exhibit
5 in Dr. Oury's deposition?

6 Tim, why have you done that? This is completely
7 outside --

8 MR. BOUCH: Your Honor --

9 THE COURT: You're --

10 MR. BOUCH: May I be heard?

11 THE COURT: Just a minute. Let me be heard first.

12 This is, in my view, violative of my order. I
13 said that Dr. Oury could not testify about this. Now
14 you're taking something out of his deposition and
15 you're asking this guy about it. That's violative of
16 my order. It's a backdoor way of trying to get in
17 something I'm not going to let you get in through Oury,
18 and I'm very distressed about that.

19 MR. BOUCH: Your Honor, may I be heard?

20 THE COURT: Yes.

21 MR. BOUCH: The motion was to strike a speculative
22 opinion of Dr. Oury. That was the motion, and that's
23 what you granted.

24 THE COURT: Uh-huh.

25 MR. BOUCH: We argued this before when they made

1 the subsequent motion on the telephone, whereas in the
2 first deposition, it could be understood that Dr. Oury
3 was stating, in fact, what was in here was a particular
4 type, and since he did not do the studies, that he
5 couldn't say --

6 THE COURT: That's right. He can't say it's
7 amphibole.

8 MR. BOUCH: That's right. However, what we
9 have -- and they opened the door. They brought this up
10 in direct, that he had described the ferruginous bodies
11 that he saw on the material that they sent him. He
12 already has a copy of it. And all I'm saying is he
13 says he relies on these things "when I do my diagnostic
14 work."

15 MS. FARRISE: He didn't say that. I just asked
16 him the question, and he just said he did --

17 THE COURT: She's moving to strike that, so that
18 one is not going to count.

19 MR. BOUCH: The point is I laid my foundation that
20 this is a common practice in the medical profession
21 that relies on opinions and probabilities. They never
22 have -- very rarely have a one hundred percent, and I'm
23 not asking him whether, in fact, this is. I'm saying
24 when you see these types of fibers in patients,
25 96 percent of the time what --

1 THE COURT: You're not saying "in patients."
2 You're saying "in Mr. Jolly."

3 MR. BOUCH: I'll say "in patients."

4 THE COURT: Well, you have already said that
5 that's from Jolly. So you're asking about Mr. Jolly,
6 and you're asking in connection with an exhibit that --

7 MR. BOUCH: I'll exclude Mr. Jolly.

8 MS. FARRISE: Well --

9 MR. BOUCH: When they see these types of results
10 on electron microscope --

11 THE COURT: What I said about Oury -- and I was
12 trying to give you the benefit of the doubt. I said
13 Oury can talk about probabilities and percentages, but
14 he cannot say what's in the lymph nodes of Mr. Jolly
15 because he had previously said he did not have the
16 ability to say that because he had not made the test.
17 Now you're asking this guy --

18 MS. FARRISE: After you just admitted Mr. Jolly's
19 pictures.

20 THE COURT: Now you're asking this guy --

21 MS. FARRISE: To speculate.

22 THE COURT: -- to take that slide and make an
23 opinion.

24 MR. BOUCH: No, ma'am.

25 THE COURT: Well, then, here is what we're going

1 to do. What we're going to do is I want that -- and I
2 understand you think you can do it so you're protected
3 on the record. I want that slide withdrawn, and I want
4 you to ask him about general percentages, but I do not
5 want you to ask him about Dr. Jolly -- I mean Mr. Jolly
6 because that is an end-run around what I have already
7 ruled.

8 MS. FARRISE: And, Your Honor, if the exhibit is
9 going to be withdrawn, can you instruct the jury to
10 disregard the testimony?

11 THE COURT: I will. I don't want to get into this
12 thing on a sanction basis because I've deferred all
13 that, but don't put me in that box, Tim. I've ruled,
14 and I know it's not a ruling you agree with, but we've
15 got a long trial ahead of us, and let's not get twisted
16 up over this.

17 MR. BOUCH: Well, Your Honor, they admitted it
18 without objection when I introduced it. I'm not going
19 to -- I'm going to say I'll take it down and I'll
20 ask --

21 THE COURT: The general question. That's all I'm
22 asking you to do.

23 MS. FARRISE: Well, I think the jury, just from my
24 position on the record, given the way it has occurred,
25 the jury will certainly be misled into believing that

1 our expert is saying that Mr. Jolly's -- based on the
2 odds, the fiber there is amphibole, and our expert
3 absolutely cannot say that.

4 THE COURT: I get your approach to it. And,
5 again, what I'm going to do is Mr. Bouch is going to
6 withdraw that exhibit, and he's agreed to do that even
7 though he thinks he did the right thing, and he's
8 preserving all of his positions with respect to the
9 Jury deposition. He's going to ask the general
10 questions, and he's going to do that because I've
11 already ruled on this issue. And I'll instruct the
12 jury that they are to disregard the exhibit that's
13 going to be withdrawn.

14 MS. FARRISE: Thank you.

15 MR. BOUCH: Thank you, Your Honor.

16 THE COURT: Ladies and gentlemen of the jury, as
17 you might imagine, I have meetings with my lawyers to
18 discuss how evidence is going to be put in front of
19 you.

20 At the present time, Mr. Bouch is going to
21 withdraw the slide you just saw, and he'll rephrase the
22 question that he's going to ask.

23 So if you would just disregard that slide and that
24 information and we'll proceed. There will be other
25 ways in which you can get the information you need

1 about these matters, but we have made some previous
2 rulings, and we want to stick within the train tracks
3 we have already laid down, so that's what's going on
4 here.

5 So if you would just -- Mr. Bouch will withdraw
6 that exhibit and go right forward with his examination
7 of Dr. Frank.

8 So, Dr. Frank, if you will let me have that slide.

9 Thank you very much.

10 MR. BOUCH: I think those are his, Your Honor.
11 You have the exhibit.

12 THE COURT: That's a copy of this exhibit that
13 we're withdrawing?

14 MR. BOUCH: That's true, but that's Dr. Frank's
15 file. I mean, I'm not going to ask him about it.

16 THE COURT: Thank you, Dr. Frank. I don't want to
17 take your paperwork.

18 (WHEREUPON, Defendant's Exhibit Numbers 153 and
19 154 were withdrawn.)

20 BY MR. BOUCH:

21 Q Dr. Frank.

22 A Yes, Mr. Bouch.

23 Q You have seen micrographs, microphotographs, in
24 the course of your practice?

25 A I have.

1 Q And you frequently -- you make them yourself?

2 A I've taken some myself.

3 Q And frequently they have on them what is called a
4 ferruginous or asbestos body?

5 A Yes, sir.

6 Q And while there are additional studies that can
7 determine in general exactly to a hundred percent
8 certainty what that internal fiber is, do you have a
9 belief that the overwhelming number of fibers within
10 those ferruginous bodies are amphiboles?

11 A Your question was a little contradictory. It
12 can't be in general. I agree with you, you can
13 determine quite specifically what those fibers are with
14 certain tests.

15 Q Right.

16 A Most of these asbestos bodies or ferruginous
17 bodies have been studied in the lungs. And in the lung
18 where amphiboles reside and stay longer than
19 chrysotile, the vast majority of them are indeed
20 amphibole. Less is known about the fibers that migrate
21 out of the lung, and preferentially chrysotile asbestos
22 migrates out of the lung. It normally stays there
23 about 90 days for a half-life. Half of it's gone in
24 90 days. For the amphiboles, it's more like two or
25 three years. So they hang around in the lung, the

1 chrysotile moves out, and it may move to other tissues
2 such as the pleurae. And in those settings, the
3 percentages may well be different.

4 Q But from what we know now, the science, the
5 overwhelming majority of the core of ferruginous bodies
6 found within the tissue of your patients generally are
7 amphiboles?

8 A Yes, in general that would be true.

9 Q And you're familiar with Dr. Roggli's Third
10 Edition *Pathology of Asbestos-Associated Diseases*?

11 A I get shown it pretty regularly by you and your
12 colleagues.

13 Q Pretty regularly. All right. And while you may
14 not agree with everything in it, you agree that it is a
15 book authored by respected scientists in their field?

16 A Well, it's authored by specific scientists. If
17 they're respected or not is a different question.
18 There is a lot of things about some of those folks I
19 don't respect, but we'll let that go.

20 Q But it's material similar to which you and your
21 colleagues rely upon in your study of the literature of
22 asbestos?

23 A I don't particularly rely upon that book, but it
24 covers topics where some authors are those that I rely
25 upon.

1 Q But others in your profession do rely on it?

2 A Yes. I can't speak for anybody else. I can speak
3 to what I rely on and what I know.

4 Q And, of course, in Dr. Roggli's book, they say
5 96 percent of the core of ferruginous bodies are
6 amphibole?

7 A I have no reason to disagree with that. I have
8 never counted them or done that kind of work myself.

9 Q And they cite as authority two articles by
10 Dr. Roggli, three by Dr. Churg, who I believe you know?

11 A I have met them. I don't know them well. I knew
12 Dr. Churg's father better. He was one of my teachers.

13 Q Dr. Dodson has written -- they rely on two
14 articles by him?

15 A Yes, and I've published with Dr. Dodson.

16 Q Dr. Pooley from Wales?

17 A Well, there's some questions about Dr. Pooley as
18 well.

19 Q Well, I understand you may disagree --

20 A Right, but these are people who work in this
21 field. You may or may not agree or I may or may not
22 agree with everything they write.

23 Q And, finally, they rely on their 96-percent figure
24 on an article written by Dr. Lang or Dr. Selikoff under
25 whom you taught -- or --

1 A Studied.

2 Q -- studied.

3 Now, plaintiff was exposed to insulation at Duke,
4 was he not?

5 A There seems to be exposure to insulation, yes.

6 Q And that was at Duke Power?

7 A Excuse me?

8 Q At Duke Power?

9 A Yes.

10 Q And you had testified that you had been -- you had
11 been in power plants?

12 A I have been in power plants.

13 Q And have you been in any Duke Power plants?

14 A No, not that I recall. I've seen some from the
15 outside, but I've not been in them.

16 Q In order to speed this along, Doctor, I'm going to
17 show you a group of photographs that have previously
18 been marked as Crosby Exhibits 146 through 149.

19 MR. BOUCH: These are Duke documents, Your Honor,
20 that we have previously discussed.

21 MS. FARRISE: Your Honor, just before we get too
22 far down the road, we will object that these, as far as
23 I know, are not Duke documents.

24 THE COURT: Are what?

25 MS. FARRISE: Not Duke documents.

1 THE COURT: These are Crosby exhibits. The two
2 I'm looking at say "Ocone 1, 2 and 3." Does it really
3 matter whether they're Duke documents or not? They're
4 Crosby exhibits, so why don't we just call them Crosby
5 exhibits.

6 MS. FARRISE: Let's just see where we go, Your
7 Honor.

8 THE COURT: Very good. They're admitted.

9 (WHEREUPON, Defendant's Exhibit Numbers Crosby 146
10 through 149 were admitted into evidence.)

11 BY MR. BOUCH:

12 Q Dr. Frank, in your words, what do these pictures
13 depict?

14 A One of them looks like an insulated pipe that's
15 already been fully insulated. Another one is a picture
16 with mostly insulated pipe with some open material, and
17 the third one is two workers and what appears to be in
18 the process of insulating a pipe.

19 Q Now, in the lower right-hand corner of this
20 exhibit, it says what?

21 A "Ocone 1 plus 2 plus 3."

22 Q I believe there is a date below that?

23 A 3/4/74.

24 Q And it looks like a product described there, a bag
25 or a box?

1 A Says "48 Insulation MF pipe insulation."

2 Q Are you familiar with 48 Insulation?

3 A I've heard the name. I don't know anything about
4 the company or what products they sold.

5 Q Would it surprise you it was asbestos insulation?

6 A Not especially, but, you know, just the name
7 doesn't tell me that it is. I don't know if they sold
8 asbestos insulation only or had other nonasbestos
9 products as well.

10 Q At this period of time, in 1974, do you know
11 whether Duke Power was installing asbestos insulation
12 at the Ocone plant?

13 A Specifically, no.

14 Q 147, please.

15 Would this be a picture of a typical insulator in
16 a power plant?

17 A Could well be.

18 I don't have a copy of that.

19 THE COURT: Here you go.

20 MR. BOUCH: It's the one up there.

21 THE WITNESS: I can't tell if he's an insulator.
22 He is working on insulated pipe. He's got a bucket in
23 his hand with, you know, could be glue, paint. I just
24 don't know what he's doing. It certainly is an
25 insulated pipe that he's standing on.

1 Q And says "Ocone 1, 2, and 3"?

2 A Yes.

3 Q Is this another picture of pipe insulation?

4 A Yes.

5 Q Okay. And at the bottom it says "Ocone 6/22/71"?

6 A Yes.

7 Q And in your opinion, in your experience, is it
8 much more likely in 1971 that the asbestos (sic) on
9 these pipes contained asbestos?

10 A It's certainly likely, but I don't know
11 specifically that it did or it didn't.

12 Q Now, of course, your opinions on direct, you were
13 presuming at some points in time things were asbestos
14 or asbestos-free. Are you now saying you don't know?

15 MS. FARRISE: Objection, Your Honor.
16 Argumentative.

17 THE WITNESS: No.

18 THE COURT: Overruled. Go ahead, Dr. Frank.

19 THE WITNESS: If that was a question, I said -- I
20 didn't disagree. I said it's likely that it contained
21 asbestos, but specifically, I don't know about this
22 pipe insulation. That's what I said.

23 BY MR. BOUCH:

24 Q Right. And, finally, 149, please.

25 A Those look to be insulators wrapping some pipe.

1 Q And the date is 10/5/73?

2 A Yes, sir.

3 Q Now, Doctor, pass you up Crosby Exhibit 140. And
4 I will represent this is a Duke document. I don't
5 expect you to have seen this before. It's a letter
6 from Covil Insulation Company to Duke Power,
7 November 14, 1969, correct?

8 A Yes.

9 Q Okay. And they're submitting a bid to do the
10 insulation work on the Oconee power plant, are they
11 not?

12 A Apparently.

13 Q And they are submitting Owens Corning Fiberglass
14 products but are in a position to substitute Johns
15 Manville products as specified with no additional cost
16 to the owner?

17 A They were prepared to do that apparently, yes.

18 Q Would that indicate to you that the insulation
19 that was going to be used at Oconee was going to be
20 Owens Corning product or a Johns Manville product?

21 A So it would seem, and the Owens Corning product
22 was a fiberglass product, and it doesn't specify if
23 they were going to use Johns Manville asbestos or a
24 fiberglass product.

25 Q And, likewise, it doesn't say whether Owens

1 Corning Fiberglass was going to use its Kaylo product
2 with which you were very familiar with and contained
3 asbestos?

4 A It very specifically says "Owens Corning
5 Fiberglass," which is not an asbestos product.

6 Q Well, Owens Corning Fiberglass is the name of the
7 company, isn't it?

8 A I don't know what the formal name of the company
9 is.

10 Q Let's do this. I'm going to show you what has
11 been marked as Defendant's Exhibit 130. You're
12 familiar with that?

13 A I'm familiar with Kaylo, yes.

14 Q And you're familiar with that it is made by Owens
15 Corning Fiberglass?

16 A Yes.

17 Q That's the logo under the word "insulation,"
18 "Owens Corning Fiberglass," is it not?

19 A Yes.

20 Q And the thing, there is a date on it, January 1,
21 1967, isn't there?

22 A Yes.

23 Q It has a warning, "This contains asbestos fiber"?

24 A That's what it says.

25 Q Okay. So these products, if they were sent to

1 Duke, would have a warning on them, would they not?

2 A If this product was used, it should have had this
3 warning on it.

4 Q Okay. Just for completeness, Doctor, I'll show
5 you what's been marked as Crosby Exhibit 141, which is
6 a letter from Owens Corning Fiberglass to Duke Power
7 indicating that they're going to be happy to supply the
8 material?

9 A Yes.

10 Q Okay. Finally, to try and eliminate any questions
11 you may have, I'll show you Crosby Exhibit 142.

12 Would you please bring that up.

13 And that letter from Covil Insulation to Duke
14 Power said, "Here are our price lists for Kaylo calcium
15 silicate and fiberglass pipe covering," right?

16 A Yes.

17 Q Okay. And that's dated January 8, 1970, is it
18 not?

19 A It is.

20 Q Okay. So at least a fair reading of the
21 correspondence between -- let me see here. And,
22 finally, Exhibit 143, another letter from Covil to Duke
23 Power Company, Doctor, where it talks about they will
24 provide insulation on the turbines, separators, piping,
25 fittings, valves, furnished by General Electric

1 Company, correct?

2 A Yes.

3 Q And that letter is dated February 1, 1971?

4 A Yes.

5 Q Okay. And so for at least as of 1971,
6 asbestos-containing insulation by either Owens Corning
7 or Johns Manville was proposed to be used at the Ocone
8 plant?

9 A I think you're reading more into this than I read.
10 In fact, the one letter said -- it doesn't say -- it
11 says Kaylo, which at that point would have been an
12 asbestos-containing material or fiberglass pipe
13 covering, which I take to be nonasbestos. And this
14 last letter doesn't specify if it was going to be an
15 asbestos product or not.

16 Q Do you know the temperature ranges between the
17 fiberglass and the asbestos insulation?

18 A Asbestos will go up to higher heat ranges. I
19 don't know the exact numbers.

20 Q So if you had something going up to a thousand
21 degrees, you couldn't use fiberglass, could you?

22 A There's probably a limit a bit below that.

23 Q And this insulation, this Kaylo insulation and the
24 Johns Manville insulation, if it contained asbestos, it
25 more than likely contained amosite asbestos, would it

1 not?

2 A Most likely.

3 Q Do you agree there is a high degree of
4 mesothelioma from insulators working with amosite
5 insulation?

6 A There is a high degree of mesotheliomas in
7 insulators because they work with both amosite and
8 chrysotile, and they are the most heavily exposed
9 group, and roughly one in ten or one in 12 insulators
10 get mesothelioma.

11 Q Now, you opined earlier as far as mesothelioma and
12 asbestos, you identified Dr. Wagner's study in 1960,
13 the case series study you referred to?

14 A Yes.

15 Q And that involved a crocidolite mine in South
16 Africa?

17 A So I said, yes.

18 Q And I believe that your instructor, Dr. Selikoff,
19 was the first person that identified the
20 carcinogenicity of amosite asbestos in 1972?

21 A Well, he was a little bombastic with his paper
22 when he said this is the first verification of amosite
23 alone causing mesothelioma. Clearly, people had used
24 amosite before that and had gotten mesotheliomas.

25 Q But at least if someone, as you say, wanted to go

1 to one of the premiere, if not the premiere researchers
2 in asbestos in the United States, and he said this is
3 the first article where we have been able to prove it,
4 you would have no reason to disbelieve him?

5 A Correct.

6 Q And that was in 1972?

7 A Yes.

8 Q Okay. Now, the last time I took your
9 deposition -- it's been some time -- you admitted to me
10 that you did not have a study that focused on increased
11 risk using just chrysotile and just gaskets and
12 packing?

13 A I'm not aware that there is such a study that's
14 ever been carried out in the scientific literature. As
15 I said earlier, there's some 3- to 4,000 products, and
16 not every product has had a study. Just as I could say
17 left-handed people born in March who are redheads
18 haven't had a study to see if they get mesotheliomas
19 from asbestos exposure. So those are very narrow
20 parameters.

21 Q Well, you studied with Selikoff. Do you think he
22 was a careful researcher?

23 A Yes.

24 Q He's not a man to say something is safe unless he
25 believed it was safe?

1 A I have never heard him say that the materials were
2 safe.

3 Q All right, sir. Have you heard him say that they
4 pose no hazard?

5 A He's -- under certain circumstances and for
6 certain products, that was his thought, which turned
7 out, in looking back, it was wrong.

8 Q Well, you know, hindsight is always 20/20.

9 A Sure. None of us is perfect.

10 Q Okay. But you're aware of his book with Dr. Lee,
11 *Asbestos and Disease*?

12 A I am.

13 Q Published in 1978?

14 A Yes.

15 Q Authoritative?

16 A '78 or '76?

17 Q '78.

18 A Okay.

19 Q Authoritative?

20 A It's a book I own and have referred to many times.
21 That doesn't mean everything in there is correct, but
22 it's one that I regard, for the most part, as being
23 correct.

24 Q At Page 467, Doctor --

25 A Table 20-3, is it?

1 Q You've seen it a million times, right?

2 A Yes.

3 Q And where they say, "High temperature jointing and
4 packing materials, asbestos fiber, no substitute, heat
5 resistant material, no health hazard in forms used in
6 shipyard applications," correct?

7 A Well, let's be clear as to what -- who said that,
8 and it was a reprint of another scientist's work of a
9 document that Dr. Harries in Great Britain first wrote
10 about his work in shipyards in the 1960s. And
11 Dr. Selikoff, in keeping with not altering somebody
12 else's work, published the whole piece. That doesn't
13 mean he necessarily would have believed that, but in
14 fairness to Dr. Harries, he put the whole thing there.
15 And he talks about shipyards. I don't think I have any
16 knowledge that Mr. Jolly worked in a shipyard.

17 Q Okay. You have no information that gaskets that
18 may have gone into a valve -- you were asked about
19 Crosby valves on ships -- would be any different in
20 composition or use than valves provided in a Crosby
21 valve to a power plant, do you?

22 A Again, you know, there's probably a lot of
23 different valves that Crosby made, and I'm not familiar
24 with the whole catalog, but they probably would be
25 somewhat similar.

1 Q They are probably identical, aren't they?

2 A They may be. I don't know.

3 Q You were asked specifically about some valves that
4 Crosby may have sold to the Navy. Do you remember
5 that?

6 A Yes.

7 Q Okay. You weren't here yesterday, but there was a
8 lot of reading in, and they talked about valves that
9 contained an asbestos internal gasket that was provided
10 to four ships built in 1933.

11 A I think those were the same four ships Ms. Farrise
12 read this morning.

13 Q Right. The Astoria, Minnesota, San Francisco and
14 New Orleans, in 1933. Two of those ships were sunk in
15 Guadalcanal in 1942?

16 A I don't know the history of those ships.

17 Q And the other two were scrapped in 1947 after the
18 war?

19 A I'll take your word for it. I have no reason to
20 argue with you over that.

21 Q And the Walsh-Healey Act adopted the five million
22 particles per cubic foot limit on asbestos in 1960?

23 A I think it was earlier than that, but it may not
24 have applied when those ships were built.

25 Q Okay. The ships were built in '33. And if the

1 Act was not amended to include an asbestos limit until
2 1960 --

3 A Then it wouldn't apply.

4 Q -- then it wouldn't apply?

5 A Correct.

6 Q Now, you said briefly that there are different
7 types of fibers, and we talked about three of them
8 commercially -- the chrysotile, the white asbestos, the
9 amosite, which is the brown, and the crocidolite is
10 blue?

11 A Yes, sir.

12 Q Each one is different chemically?

13 A Yes.

14 Q Each has its own characteristics?

15 A Yes.

16 Q Most believe that amosite is a very potent cause
17 of mesothelioma, correct?

18 A I don't know what "most" is. There's many schools
19 of thought. Actually, some people say crocidolite is
20 the most. Somebody came out and said it was 500 to 100
21 to 1. And then they said, "Oh, no, no, no. That's not
22 right. It's 50 to 10 to 1." And then, "Well, no.
23 There's other data. It might be 50 to 10 to 4 or 7."
24 So that's one school of thought, that the amphiboles
25 are more potent.

1 There's another school of thought that says most
2 mesotheliomas are caused by chrysotile, given that
3 95 percent of all the asbestos used, that sort of makes
4 some sense. There is another school of thought that
5 says if you mix the two types together, you get a
6 synergistic or increased effect. In my own reading,
7 after almost 50 years, is it's an unsettled scientific
8 question.

9 That said, different people have different views,
10 and some people think that the amosite or crocidolite
11 or the amphiboles are more potent. There's animal data
12 that goes back to Dr. Wagner that chrysotile and
13 crocidolite are equally potent in his study.

14 Q Have you ever told me that amosite is believed by
15 most to be a very potent cause of mesothelioma?

16 A And I agree it is a potent cause of mesothelioma,
17 as are the other fiber types of asbestos as well.

18 Q All right. In fact, the studies of Dr. Selikoff
19 demonstrate the death rate with mesothelioma among
20 insulators using amosite is as high as nine to
21 ten percent?

22 A Yes. And it's not just amosite. Kaylo, the
23 product you're talking about, had both amosite and some
24 chrysotile in it.

25 Q Thermal insulation is friable under your

1 understanding, is it not?

2 A Yes. Friable means it can be easily --

3 Q I'll get there, Doctor.

4 A Well, I just was going to explain a term that I'm
5 using or you're using, but go ahead.

6 Q Friable means you can crumble it with the touch of
7 your hand or easily disturbed, right.

8 A Yes.

9 Q And when that happens, asbestos fibers are
10 released in the air?

11 A Yes.

12 Q Now, fibers, to be insulated, have to be a certain
13 size, don't they? Fibers to be inhaled. I'm trying to
14 do you a favor here, Doctor.

15 A I understand.

16 Q Work with me here.

17 A I was going to. It didn't make sense, so.

18 Yeah, the fibers to be inhaled, if they're too
19 big, they're not inhaled. Fibers of a certain --

20 larger ones get filtered out in the nose and the upper
21 airway. The really, really tiny ones get breathed in
22 and breathed out. There is a fairly narrow size range
23 where fibers get inhaled and stay in the lung and then
24 get spread literally throughout the body.

25 Q When you take -- and I know this is a

1 controversial term among us, but when you take a
2 material such as a gasket that is said to be
3 encapsulated and you break it into smaller pieces, you
4 not only have fibers but fibers that are connected with
5 the binder also?

6 A Some of them are still connected to binder, and
7 some are free and loose.

8 Q And the binders frequently prevent what you see
9 from breathing in because it's the wrong size?

10 A Well, the binders mean that there's clumps that
11 are too big to be breathed in, but the loose fibers can
12 still be breathed in.

13 Q Now, you believe, Doctor, that Mr. Jolly was
14 exposed to danger when he was merely around people who
15 were installing or stripping off amosite-containing
16 friable thermal insulation?

17 A If he was exposed to people installing or
18 stripping out amosite-containing insulation, yes, that
19 put him in danger. And to the extent that he did have
20 such exposure that can be documented, that would have
21 been a significant contributing cause along with his
22 other exposures. As you said, my letter says all
23 products containing all fiber types.

24 Q And you weren't here yesterday when Mr. Jolly was
25 with us, but when he said he was exposed to tons of it

1 that was thrown on the floor, you would consider that
2 in and of itself sufficient to be a cause of his
3 mesothelioma, would you not?

4 A If it was asbestos-containing, yes.

5 Q And while you have been asked questions this
6 morning about new plants that may have been constructed
7 in the late '70s, you're also aware that Mr. Jolly
8 worked in Ocone which began insulating in 1970, '71,
9 if those pictures are accurate?

10 A Apparently so.

11 Q And, of course, he also was exposed at plants that
12 were built in the '20s such as Riverside and Buck?

13 A Again, he did some work at those plants, and if it
14 can be shown he was exposed to asbestos, I have no
15 trouble telling the ladies and gentlemen of the jury
16 that those exposures, should he have had them, would
17 have contributed to his disease as well.

18 Q And Allen, Lee, Cliffside, Dan River, Belews
19 Creek, and Marshal plants, all built up into the mid
20 '60s, would have had substantial asbestos insulation
21 containing amosite on their lines and pipes?

22 A It's likely. I don't know the details of those
23 plants, but it's certainly possible.

24 Q You weren't given any information of Mr. Jolly's
25 work at those facilities?

1 A Not the specifics.

2 Q Okay. Now, Doctor, you talked a little bit about
3 ambient exposure, which is generally in the air?

4 A Yes, sir.

5 Q Okay. And ambient exposure is generally, you say,
6 urban is one; rural is another. It's sliced a little
7 thinner than that, isn't it?

8 A I'm not sure I understand the question.

9 Q It was a very inartful question. I was trying to
10 hurry, Doctor.

11 There are background readings taken in many places
12 in the country?

13 A Oh, there's a document from 1984 with probably
14 several hundred measurements from all over the country
15 with lots of different numbers. Those are numbers that
16 the ATSDR, the Agency for Toxic Substances and Disease
17 Registry, suggests should be used for typical
18 background levels. Of course, they could be higher or
19 lower.

20 Q Higher or lower. And based on your testimony this
21 morning, if you were across the street from the Ocone
22 plant, it may be higher?

23 A It might be higher if material is being released
24 out of the plant.

25 Q Right. Or if Mr. Jolly stopped outside Winnsboro

1 on his way to the beach near the old asbestos mine, it
2 might be higher?

3 A Near the asbestos mine, it would be higher, but
4 that's sort of not typical ambient or background level.
5 That's near a point source, but it certainly would be
6 higher.

7 Q Right. Or if he drove over to Simpsonville where
8 they made ironing board covers in the '60s made out of
9 asbestos, it might be higher there?

10 A Might be.

11 Q And if he went to Slater, where they made fireman
12 suits up into the '70s, late '70s, it might be higher
13 up there too?

14 A It might be.

15 Q Now, I believe, Doctor, and I understand your
16 belief is very strong, and your opinion, but you have
17 to give me that some scientists believe that chrysotile
18 does not cause mesothelioma?

19 A In my career, I have met two such scientists out
20 of many scientists who make the claim that chrysotile
21 is not as potent, but only two that I'm aware of, that
22 it doesn't cause mesothelioma. And, clearly, looking
23 at the data that's out there, and without going into
24 the circumstances of some of those individuals and
25 maybe why they said what they said, I'll agree that

1 there are such individuals.

2 Q Okay. And there are also scientists who believe
3 that chrysotile does not cause mesothelioma except in
4 very high doses?

5 A There are some scientists who suggest that as
6 well.

7 Q Okay. Now, Doctor, you exhibited some familiarity
8 with OSHA on your direct exam.

9 A Yes.

10 Q Would you put up 152, please.

11 This has previously been marked.

12 Doctor, OSHA was enacted in 1971, and they came
13 out with their asbestos rules in 1972?

14 A Yes, sir.

15 Q Okay. And now when OSHA first came in, they had a
16 list of what they thought were hazardous materials, did
17 they not?

18 A I don't recall what it said in 1972. That was
19 before I was intending to look at the regulations. But
20 if you tell me that's there, I have no reason to
21 disagree with you.

22 Q And on that list, they adopted for a short period
23 of time the five million particles per cubic foot level
24 that had been adopted by the Walsh-Healey Act in 1960?

25 A That is what they started with, and then they very

1 quickly went to 12 fibers to five fibers to two fibers,
2 and over the years went to .2 and then .1, so there is
3 a history of reduction of amounts of exposure.

4 Q Well, Doctor, the list of hazardous substances
5 that OSHA initially looked at, the first five of them
6 they banned totally, didn't they?

7 A Again, I don't recall. They did require that, for
8 example, joint compound, which we talked about, was not
9 to use asbestos anymore. I don't know what the other
10 four might be.

11 Q Okay. Well, actually, joint compound wasn't
12 banned until '76, wasn't it?

13 A Right. Well, I don't know when they put the
14 regulation out and how much lead time they gave them.

15 Q But certain chemicals and substances in 1972 were
16 banned outright?

17 A Apparently so.

18 Q But they adopted a level, a permissible level, for
19 asbestos exposure with their initial rulings?

20 A Right. And we still have permissible levels that
21 still get people sick.

22 Q And OSHA is responsible for a safe workplace?

23 A Well, they're not responsible for the workplaces.
24 They have regulations that say workers are entitled to
25 a safe and healthy workplace.

1 Q Right. That's their responsibility, make sure
2 OSHA -- that workers have --

3 A Right.

4 Q And they put in their '72 regulations certain
5 responsibilities on Duke Power, the employer, who are
6 exposed to asbestos dust, certain requirements,
7 correct?

8 A Yes.

9 Q And they're listed right there?

10 A Okay.

11 Q Right? Fair enough?

12 A Yes.

13 Q Respiratory protective devices, warning signs,
14 dust samples collection, medical examinations, and
15 records of personal and environmental monitoring?

16 A Yes.

17 Q Now, if we can go over to the third page of that
18 document, Doctor. This is in 1976. OSHA was amended
19 then, wasn't it?

20 A I believe so.

21 Q And in 1976 they banned spray asbestos, didn't
22 they?

23 A I don't know when they banned it. New York City
24 banned it in 1971. I don't know when the ban for the
25 whole country came out.

1 Q They banned asbestos-containing insulation but did
2 not require it to be removed or abated if it was in
3 place?

4 A Right.

5 Q They banned the joint compound that you spoke of
6 earlier?

7 A Yes.

8 Q And they put in compliance rules such as this,
9 correct?

10 A Yes.

11 Q And it said, "Engineering controls such as but not
12 limited to isolation, exposure, enclosure, exhaust,
13 ventilation, and dust collection shall be prescribed to
14 the employer," right?

15 A It requires that they do something using good
16 industrial hygiene to limit the exposures.

17 Q Such as isolation, enclosure, exhaust,
18 ventilation, and dust collection?

19 A Right.

20 Q You weren't here yesterday when Mr. Jolly thought,
21 well, maybe Duke did do that?

22 A I was not here yesterday.

23 Q Okay.

24 Can I have the next page, please.

25 Continuing in 1976, OSHA also required local

1 exhaust ventilation and dust collection shall be
2 designed, constructed, and installed, correct?

3 A Correct.

4 Q Go to the next page, please.

5 And you were asked several questions about power
6 grinding and air grinding and wire brushing and power
7 wire brushing on your direct. Do you remember that?

8 A Yes. I do remember --

9 Q What does it say about in 1976, three years before
10 Mr. Jolly started, four years before he was exposed,
11 OSHA said, "All hand-operated power tools which may
12 produce or release asbestos fibers in excess of the
13 exposure limits" -- by that time it was down to 2,
14 right?

15 A Yes.

16 Q "Not limited -- included but not limited to saws,
17 scores, abrasive wheels, and drills shall be
18 provided" -- not may, shall -- "with local exhaust
19 ventilation systems in accordance with Subdivision 2,"
20 correct?

21 A That's what it says.

22 Q And you had no reason to believe Duke did not
23 comply with this, did you?

24 A I have no reason -- I wasn't there. I don't know
25 if they did or didn't comply or what they knew about

1 the products they were working with.

2 Q Well, let's go into this a little bit more.

3 If Duke ordered an asbestos product, they
4 obviously knew they were getting asbestos?

5 A I would think so.

6 Q Okay. And they knew, pursuant to these
7 regulations, at least as to 1976, they were going to
8 have to do something about it?

9 A Yes, if they were ordering asbestos products.

10 Q Right. And if they knew they were ordering
11 asbestos products, they either had to do a study to say
12 it would not exceed the limit, or they had to put in
13 the ventilation and the isolation and the tool
14 ventilation that is required by these rules, correct?

15 A They had an industrial hygiene department. They
16 may have done those studies. I'm not aware of what
17 they did in Mr. Jolly's workplace.

18 Q Can I have the next page?

19 And in describing not only the ventilation that
20 you had to put on tools and the ventilation you had to
21 put in the work area and the isolation of people
22 working in asbestos, they also said you had to use wet
23 methods, right?

24 A That cuts down on dust.

25 Q That's right. "Asbestos shall be handled, mixed,

1 applied, removed, cut, scored, or otherwise worked in a
2 wet state sufficient to prevent the emission of
3 airborne fibers in excess of the exposure limits,"
4 correct?

5 A Yes.

6 Q And then the last page, please.

7 This is where we say they're not going to use any
8 asbestos cement, mortar, coating, grout, plaster, or
9 material containing asbestos from bags, cartons, or
10 other containers in which they're shipped without being
11 either wetted, enclosed, ventilated as to prevent
12 effectively the release of airborne asbestos fibers,
13 correct?

14 A There's what it says.

15 Q And Duke, as far as you know, had to do that by
16 1976?

17 A Yes.

18 Q Now, have you been -- I'm going to give you -- I
19 believe this was marked yesterday, but just on the off
20 chance we didn't have it -- Crosby Exhibit 134. I
21 believe that was previously marked yesterday.

22 Have you been provided with this, Dr. Frank?

23 A No.

24 Q This is a memo from Duke Power to all its station
25 managers regarding asbestos insulation.

1 A Okay.

2 Q And attached to it are safe working practices when
3 working with asbestos?

4 A Okay.

5 Q This is three years before Mr. Jolly started.

6 A Right. So they were aware of this and put in
7 place safe working practices.

8 Q Right. Safe working practices. And they did.
9 And they talked about in this wetting it down,
10 engineering methods, removal of asbestos, spraying,
11 demolition, all kinds of issues, correct?

12 A Correct.

13 Q And you believe that was a good thing?

14 A That would be a good thing if they put these in
15 place, sure.

16 Q If they did?

17 A Right.

18 Q Okay. Exhibit 135, Doctor. May 28, 1982, Duke,
19 all safety supervisors at steam locations, updated safe
20 working practices for asbestos, correct?

21 A Yes.

22 Q Again, Duke continued to do this, and this, of
23 course, was two years into Mr. Jolly's tenure?

24 A Right.

25 Q Okay. So they either did this or they didn't?

1 A Or they did some of it. I don't know the details.

2 Q Okay. And, of course, they also specify the
3 signs, the warning signs, that need to be there,
4 asbestos dust hazard, avoid breathing dust?

5 A Yes.

6 Q They talk about removal?

7 A Yes.

8 Q Must be handled carefully, must be wetted down,
9 they must use respirators, all kind of things, right?

10 A Yes.

11 Q Then, Doctor, in 1984, they had a new *Asbestos:*
12 *How to Protect Yourself*. This was during Mr. Jolly's
13 tenure, was it not?

14 A Yes. This appears to be an instructor's guide.
15 I'm not sure that Mr. Jolly was ever an instructor and
16 that he would have gotten this.

17 Q Well, in 1984 he went on to be an instructor,
18 didn't he?

19 A Yes. I don't know if he instructed about asbestos
20 removal.

21 Q Well, he said they were -- he lectured on safety
22 items?

23 A Safety is safety, and that's very generic.

24 Q The term "safe" is generic, isn't it?

25 A Yes.

1 Q Nothing is a hundred percent safe?

2 A Probably true.

3 Q Probably true. We could, like you say, get hit by
4 a bus?

5 A Philosophically, you know, we could talk about
6 that.

7 Q Talk about that forever. Nothing is safe?

8 A Right. Walking down the street, we might get hit
9 by a meteor.

10 Q Doctor, if you pull over to a slide outlined --
11 it's about seven pages --

12 A I've got numbers at the bottom.

13 Q 0062.

14 A Yes, sir. Got that.

15 Q And the sound on the slide was, "There are
16 thousands of uses for asbestos because it resists heat,
17 corrosive chemicals, and can be found in some form in
18 almost every home and workplace," correct?

19 A That's what it says.

20 Q That's true, isn't it? 1984?

21 A It would have been found in a lot of workplaces
22 and a lot of homes. Again, there were a lot of
23 products that over the years have contained asbestos
24 and may have still been around people's homes.

25 Q A hair dryer you would buy from the drug store in

1 1990 had asbestos in it, didn't it?

2 A Some of them did.

3 Q It says, "Yet of all the respiratory hazards you
4 may encounter at home and work, asbestos dust is the
5 most harmful"?

6 A Is among the most harmful.

7 Q And this is what Duke was teaching its employees
8 at least --

9 MS. FARRISE: I'd just like to ask if the witness
10 could be allowed to finish his answer.

11 THE COURT: Let the witness finish.

12 BY MR. BOUCH:

13 Q Were you finished, Doctor? I apologize.

14 A That's fine.

15 Q This is what Duke was teaching their employees as
16 of 1984?

17 A This was their slide set. I have no knowledge
18 about how many of their employees or which employees
19 got taught about this.

20 Q The next page says, "There are various kinds of
21 asbestos. Even exposure to low levels may cause
22 physical problems years later"?

23 A Serious physical problems.

24 Q Right. That's what I said, serious medical
25 problems.

- 1 A You left out the "serious."
- 2 Q Freudian slip. Says, "May cause serious physical
3 problems years later," correct?
- 4 A Yes.
- 5 Q Okay. And this at least purports to be what Duke
6 was telling its employees at least as of 1984 if not
7 earlier?
- 8 A It was a script that was put together that talks
9 about all the forms of asbestos and their risk,
10 including cancer.
- 11 Q "Including cancer of the lungs and digestive
12 tract," is what it says, correct?
- 13 A Correct.
- 14 Q It says, "But there are things you and Duke Power
15 Company can do together to eliminate the risk of your
16 asbestos exposure at work"?
- 17 A It says that.
- 18 Q That's what it says.
- 19 A Yes, it does.
- 20 Q And then on the next page it says, "Actually,
21 asbestos is used very little at Duke construction
22 today, mostly to isolate -- insulate, I'm sorry --
23 electrical cabinets, pack valves, and used in gasket
24 material," correct?
- 25 A Yes.

1 Q That's what it says?

2 A Yes.

3 Q Even so, the asbestos in these jobs is bonded,
4 which means it produces virtually no dust?

5 A They're all pretty much encapsulated products
6 going in. That doesn't mean that when you manipulate
7 them, they won't give fibers off later on.

8 Q And it continues, "In the past, however, nonbonded
9 asbestos," and here we're talking about insulation,
10 aren't we?

11 A Yes.

12 Q And cement, right?

13 A Yes.

14 Q And spray insulation?

15 A Well, it speaks for itself.

16 Q Joint compounds?

17 A It says, "Has been used for insulation." There
18 are a lot of products, as it says next to it, the
19 pictures said, "Insulation around piping, valves, or
20 other structures."

21 Q Similar to the pictures we looked at earlier,
22 correct?

23 A Yes.

24 Q And it says, "In the past, nonbonded insulation
25 has been used for insulation throughout the Duke

1 system, so there is a good chance asbestos dust is
2 present wherever old insulation is being removed"?

3 A Right. And the accompanying picture says, "Old
4 asbestos insulation around piping valve or other
5 structure."

6 Q And I'll represent to you, yesterday Mr. Jolly
7 said that's what they threw on the floor when he was
8 there adjacent to it without a respirator.

9 A Okay.

10 MS. FARRISE: Objection; assumes facts not in
11 evidence.

12 BY MR. BOUCH:

13 Q And they, of course, say their safety department
14 takes air samples whenever a respiratory hazard is
15 suspected.

16 A It says that.

17 Q You believe that is prudent pursuant to the OSHA
18 rules --

19 A Yes. It's required.

20 Q -- in existence. It's required.

21 And then --

22 A Not just prudent.

23 Q -- on the next page it continues, "But just in
24 case, do your part and alert your supervisor or safety
25 if you think a hazard exists they may not know about,"

1 right?

2 A That's what it says.

3 Q Now, Mr. Jolly said yesterday that he knew all
4 about the dangers of asbestos. That's why he got a
5 respirator when he could.

6 MS. FARRISE: Objection; misstates Mr. Jolly's
7 testimony.

8 THE COURT: I do think that slightly misstates the
9 testimony. Don't play one witness off against the
10 other. If you've got something you want to ask him
11 about, ask him, Mr. Bouch.

12 BY MR. BOUCH:

13 Q Do you have any knowledge of Mr. Jolly ever
14 putting in a safety complaint?

15 A I don't know one way or another. I do know that
16 at times he used a respirator.

17 Q Do you know whether Duke Power ever had an air
18 sampling over the limit involving gaskets and packing?

19 A I have never seen any data one way or another.

20 Q If you flip over to Page 5 of 9, Duke 0066.

21 A Yes, sir.

22 Q Says, "When air samples show the level of asbestos
23 to be high, you must wear an airline respirator"?

24 A Yes.

25 Q "And for lower levels of dust, you will be issued

1 a regular full facepiece respirator"?

2 A That's what it says.

3 Q "Or a powered air purifying respirator"?

4 A Yes.

5 Q Did Mr. Jolly ever tell you or ever state in
6 anything you've read that he wore those kinds of
7 respirators?

8 A He had a respirator. I don't believe it was an
9 airline respirator. I don't know if it was a full
10 facepiece or not.

11 Q And, finally, Doctor, Exhibit 137 was marked
12 yesterday. It's *Safe Working Practices*, amended
13 January 1985.

14 A Yes, sir.

15 THE COURT: What number is that?

16 MR. BOUCH: 137.

17 Q Now, Doctor, almost finished. Doctor, you have
18 expressed the opinion that any and all exposures
19 Mr. Jolly may have had from any product was a
20 substantial cause of his asbestos -- or his
21 mesothelioma?

22 A I don't think I used the phrase "any and all." I
23 said all of his exposures --

24 Q Right.

25 A -- from all products containing all fiber types.

1 Q That would include products from General Electric
2 Company?

3 A If they contained asbestos and if he was exposed,
4 yes.

5 Q Union Carbide Company?

6 A Same answer.

7 Q 3M Company?

8 A Same answer.

9 Q Air and Liquid Systems Company?

10 A Same answer.

11 Q Buffalo Pumps?

12 A Same answer.

13 Q Ametek?

14 A Same answer.

15 Q Aurora Pumps?

16 A Same.

17 Q Sulzer Pump Company?

18 A Yes. Again, if he was exposed, it would have
19 contributed, yes.

20 Q Byron Jackson Pumps?

21 A Same answer.

22 Q Durco?

23 A Same answer.

24 Q Carrier Corporation?

25 A Yes.

1 Q Carver Pump Company?

2 A Same answer.

3 Q Westinghouse?

4 A Same answer.

5 Q Champion Cable?

6 A Same answer.

7 Q Circle Instrumentation?

8 A Again, if he had exposures to such a product
9 containing asbestos, it would have contributed to his
10 cumulative exposure.

11 Q Crane Valves?

12 A Same answer.

13 Q Cochran Valves?

14 A Same answer.

15 Q Chapman Valves?

16 A Same answer.

17 Q Equipment supplied by Cyprus AMax Minerals?

18 A Again, if he had exposure to an
19 asbestos-containing product from that company, that
20 would have been the contributing cause to his
21 mesothelioma.

22 Q Have you been provided any information on any of
23 the names I have given you?

24 A I used to do some work for Cyprus AMax. I looked
25 after a thousand of their coal miners in Eastern

1 Kentucky but nothing to do with asbestos.

2 Q You have not been provided any information that
3 these products Mr. Jolly may have been exposed to or
4 may have claimed he was exposed to?

5 A I don't have that information.

6 Q How about Anchor/Darling valves?

7 A Same answer.

8 Q I asked you about Byron Jackson Pumps. How about
9 Gardner Denver Equipment?

10 A Same answer.

11 Q Goulds Pumps?

12 A Same answer.

13 Q Kennedy Valve?

14 A Same answer.

15 Q Grinnell?

16 A Same answer.

17 Q DeLaval?

18 A Same answer.

19 Q Ingersoll Rand?

20 A Same answer.

21 Q John Crane packing --

22 A Same answer.

23 Q -- and gaskets?

24 A If he was exposed to asbestos-containing John
25 Crane packing, it would have been, in my opinion, a

1 substantial contributing cause to his mesothelioma.

2 Q Right. Doesn't matter how much or how little?

3 A Some contribute more; some contribute less. They
4 all contribute. You can't say any of them don't count.

5 Q Have you ever seen a study in which the relative
6 risk of exposure to gaskets made with chrysotile
7 results in a relative risk over two?

8 A I have never seen a study that quotes a relative
9 risk of any kind related to just gaskets.

10 Q Okay. Doctor, what's a Crosby valve?

11 A Crosby valve is a valve apparently made by the
12 Crosby Company, Crosby Valve Company.

13 Q Do you know what it's used for?

14 A I'm gathering some of them are used in high
15 temperature lines.

16 Q Do you know anything special about it?

17 A Anything special about their valves compared to
18 other valves, no.

19 Q Can you go down to Home Depot and buy one?

20 A I really don't know. I have never bought a valve
21 in my life, except a toilet valve.

22 Q What's a Fisher valve?

23 A Again, it's a valve made by the Fisher Company,
24 and I have not ever seen one that I know of or am aware
25 if I can or can't buy one.

1 Q Do you know what function it performs?

2 A It probably functions the same way other valves do
3 in the settings in which it's used such as where
4 Mr. Jolly was working.

5 Q What's an actuator?

6 A An actuator?

7 Q Uh-huh.

8 A The only actuator I'm aware of is sort of release
9 valves for steam lines --

10 Q Okay.

11 A -- but there may be more things that are
12 actuators.

13 Q I'm sorry. I didn't mean to interrupt.

14 A It's all right.

15 Q Doctor, why would you use graphite packing instead
16 of Teflon packing?

17 A I don't know. I don't build valves, and I don't
18 know why you would choose one or another. That would
19 be up to the engineers and the people who know what
20 they're using that material for.

21 Q Okay. Doctor --

22 A Teflon is a relatively recent material, so.
23 Graphite has been around a long time and Teflon hasn't.

24 Q Well, Teflon was invented in the 1940s, wasn't it?

25 A I believe so, but graphite has been around a lot

1 longer than that.

2 Q Doctor, I'm almost finished here. Let's jump to
3 this. You were asked about the cost of Mr. Jolly's
4 treatment?

5 A Yes, sir.

6 Q And you said about a million dollars?

7 A I said it would not be unreasonable to be a
8 million dollars.

9 Q Is that a Philadelphia price or a Spartanburg
10 price?

11 A I don't think prices vary that much around the
12 country. It probably varies by hospital, by your
13 insurance, by a lot of things.

14 Q You said you had not seen many or all of the
15 bills, correct?

16 A I have not seen what I understand are all the
17 bills. I have seen some of them.

18 Q How much have you seen?

19 A About \$142,000.

20 Q Is there any reason that 900,000, in your
21 estimation, is missing?

22 A I don't know why they were or were not available
23 to show me, but I was asked questions about what, for
24 example, a surgical procedure might cost.

25 Q But the best opinion on that would be see the

1 bills, right?

2 A That would be the best data.

3 Q And they're not particularly secret, are they?

4 A I wouldn't think so, but some places don't like to
5 give up their bills.

6 Q Well, of course, if they send them to Mr. Jolly,
7 expecting them to be paid, they would be available,
8 don't you think?

9 A It depends what they send him. I doubt Mr. Jolly
10 even had 142- -- well, I don't know if he had \$142,000
11 to pay those bills or if he got what was owed or
12 whatever.

13 Q Well, whether his financial circumstance, whatever
14 it was, at least he would have the bill?

15 A Not necessarily. You have to sometimes ask for
16 them. And I don't know if he asked for them. I have
17 had, you know, my kid in the hospital. It's only
18 because I asked for them that I got a detailed bill
19 instead of just send this amount of money.

20 Q Well, send this amount of money is a bill, right?

21 A Right.

22 Q And, finally, Doctor, you were asked, well, what
23 could Fisher and Crosby have told Duke from 1980 to
24 1984 that Duke didn't already know.

25 A I wasn't asked that. I was asked the first part

1 of the question.

2 Q What could we have told them?

3 A Right.

4 Q Let's use my question.

5 A Okay.

6 Q What could we have told Duke that they didn't,
7 already know?

8 A I don't know what Duke knew, and certainly a
9 company selling asbestos-containing products would do
10 well to share with its purchasers that just want to be
11 sure that you know this product contains asbestos.

12 Q Okay. Well, you identified four things that
13 Crosby and Fisher could have told Duke in 1980 to 1984,
14 correct?

15 A I don't recall the number.

16 Q Okay. You said you could have told Duke that
17 asbestos was in the product?

18 A Yeah. That makes sense.

19 Q And if the Duke invoices here show Duke ordering
20 asbestos --

21 A They would have known.

22 Q -- they already knew, right?

23 A Well, some people at Duke may have known.

24 Q If you order a green suit, presumably you know
25 you're getting a green suit?

1 A Presumably.

2 Q You order an asbestos gasket --

3 A You expect to get an asbestos gasket.

4 Q -- you expect to get an asbestos gasket.

5 "You could have cautioned Duke on the handling."

6 Now, we have been through the OSHA regulations. And,
7 of course, Duke knew --

8 A There were hazards.

9 Q -- at least since 1964-'67 about caution about
10 working around asbestos?

11 A They knew about the hazards of asbestos.

12 Q Right. And they knew about the hazard. That was
13 the next thing. And that Duke was under an obligation
14 to reduce the exposure?

15 A After OSHA, they were under -- I don't know what
16 the rules were before that, but certainly with OSHA,
17 they were under a responsibility to reduce --

18 Q So -- so --

19 A -- exposures.

20 MS. FARRISE: Could he finish his answer?

21 THE COURT: I couldn't hear that, Ms. Farrise.

22 MS. FARRISE: I was actually asking Mr. Bouch if
23 Dr. Frank could answer before he starts asking his
24 question.

25 THE COURT: Let him get finished.

1 BY MR. BOUCH:

2 Q So of the four things that I wrote down, you said
3 we should have told them, whether asbestos existed.
4 They knew that because they ordered it, correct?

5 A Apparently.

6 Q We could have cautioned them, but they already had
7 cautions going back to 1967?

8 A Never hurts to hear important things again.

9 Q We could have told them it was a hazard. But they
10 knew about that, at least since '72 OSHA, correct?

11 A Apparently.

12 Q And we could have told them to reduce the
13 exposure, which they already knew since not only '72
14 OSHA but their own work practice manuals?

15 A Apparently.

16 MR. BOUCH: Thank you, Doctor. That's all the
17 questions I have.

18 THE WITNESS: You're welcome.

19 THE COURT: Very good.

20 Any redirect, Ms. Farrise?

21 MS. FARRISE: If I may, Your Honor, quickly,
22 hopefully.

23 REDIRECT EXAMINATION

24 BY MS. FARRISE:

25 Q Dr. Frank, you used a little bitty word that I

1 want to ask you about. Okay.

2 A Yes, ma'am.

3 Q All right. Here it is. Okay?

4 A Yes.

5 Q If, Dr. Frank, by the time Mr. Jolly begins to
6 work for Duke Power in 1979, and if by 1980 when he
7 goes to Oconee, Duke has abated or removed the
8 asbestos, there would be no reason for Duke to do any
9 number of things that you were just asked about, right?

10 A Correct. That would make sense.

11 Q And I do want to just quickly put a little
12 perspective on these photographs.

13 Can you do the thing here? Now -- can you put it
14 up on TrialPad? It's 149.

15 All right. So what we have here is new
16 construction -- I think we agree on that -- 1973,
17 correct?

18 A I don't know if it's new construction or
19 refurbishing old, but the records for Oconee will speak
20 for themselves.

21 Q Exactly. Now, if this insulation is not
22 asbestos-containing, then what is happening here in
23 terms of putting in the insulation is not an asbestos
24 hazard to the man putting in the nonasbestos materials?

25 A I agree with that.

1 Q And can you tell, Dr. Frank, just by looking at it
2 if it's asbestos-containing or not?

3 A No.

4 Q Right. So we know if Owens Corning Fiberglass
5 stopped selling asbestos-containing insulation in 1972
6 and making it in 1972, there is at least a good
7 possibility that what we see here is nonasbestos, but
8 we just don't know from looking at this picture?

9 A You can't tell from looking at the picture.

10 Q Okay. Now, you were also shown another picture
11 from Ocone. Let me get it out. Here we go. 146.

12 Can you put that up for me?

13 And you were asked about this 48 Insulation. But
14 what is this, Dr. Frank? This here? Does that look
15 like metal to you?

16 A That looks like metal.

17 Q Okay. So after insulation is installed as part of
18 the new construction, they go through in many cases and
19 they wrap it in an aluminum metal coating, right?

20 MR. BOUCH: Objection; leading.

21 THE WITNESS: That may well have been the
22 practice.

23 THE COURT: It's leading, but, frankly, I'm trying
24 to get Dr. Frank out of here, so I'm going to be a
25 little lenient about it.

1 MS. FARRISE: Thanks so much.

2 Q And this is 1974, five years before Mr. Jolly even
3 goes to work for Duke, right?

4 A Yes.

5 Q So if, by the time construction was all said and
6 done, the insulation was installed and wrapped in
7 metal; unless it was disturbed, it wouldn't expose
8 anybody even if it were asbestos?

9 A If it continued to be wrapped and undisturbed,
10 sure, that would be the case.

11 Q And it would be perfectly appropriate for Duke to
12 have asbestos in place, not being disturbed, as being
13 accessible, right?

14 A Yes. I've got a piece of asbestos rock in my
15 office. It's in a sealed Plexiglas box. I work in my
16 office every day, and it's not a problem. If somebody
17 came in and opened that box and let the dust out, now
18 we have a problem. So mere presence doesn't mean
19 you're going to be exposed.

20 Q So, for instance, we have this little valve over
21 here, 146. Do you see that little valve?

22 A I do. It's not so little, actually.

23 Q Okay. But in place, it's not exposing anybody?

24 A Right.

25 Q It is when the work is done that Mr. Jolly and his

1 coworkers describe where they break this flange and
2 start to take it out that asbestos can be released?

3 A Sitting in there, that valve poses no threat to
4 anybody.

5 Q Does this look like foam glass to you?

6 A I can't tell.

7 Q And that's a different kind of pipe insulation?

8 A Sure.

9 Q You talked about looking at this, could it be
10 fiberglass?

11 MR. BOUCH: Calls for speculation.

12 THE WITNESS: Again, by looking at a product,
13 especially from a photograph, a black-and-white, I
14 can't tell you what it is.

15 BY MS. FARRISE:

16 Q Okay. Now, you were asked, however, about a
17 Kaylo, a little Kaylo label. And that's 130.

18 Can you put that up for me, please? Can you put
19 it side by side with 148? No, you can't do a
20 side-by-side? You can? Please do that for me, sir.
21 I'd very much appreciate it.

22 Okay. So here we go. We got some more Ocone new
23 construction sites that -- I mean new construction
24 photos that we can't tell if it's asbestos. But,
25 Dr. Frank, my question for you is, you have seen this

1 Kaylo insulation label at various times throughout the
2 years in different cases, right?

3 A Right. And this is from 1967.

4 Q But it's not that big, is it?

5 A The label?

6 Q Let me ask you to look at 148. This, what is
7 depicted here, is what appears on a three-foot-tall
8 box, right?

9 A Well, I'll take your word that it's a three-foot
10 box.

11 Q Pipe covering comes in three-foot boxes?

12 A Sections. Some of it does, yes.

13 Q Have you ever heard -- this looks pretty big --
14 where and when these labels contained asbestos, the
15 information on Kaylo at least, is that the labels were
16 about this big, right?

17 MR. BOUCH: Your Honor, I object. This is total
18 speculation.

19 THE COURT: I'd move on, Ms. Farrise.

20 MR. BOUCH: Improper redirect.

21 BY MS. FARRISE:

22 Q This label here, under the OSHA regulations that
23 you were being asked about --

24 A Yes.

25 Q -- they require something called a Material Safety

1 Data Sheet, don't they?

2 A There was a requirement for these sheets which
3 describe a lot of factors about that product that are
4 sold in commerce.

5 Q And so if another significant business of the
6 Crosby Valve Company and Fisher Control Company is to
7 sell asbestos-containing replacement parts -- are you
8 following me?

9 A I am.

10 Q The law, under OSHA, required that those products
11 be sent either with a label and a warning or with a
12 Material Safety Data Sheet or maybe the law requires
13 both; what do you think?

14 A Yes.

15 Q What do you think?

16 A It may well require both, depending on what the
17 product is. I mean, all products are required to have
18 MSDSs, Material Safety Data Sheets, and asbestos
19 products are supposed to have asbestos labels.

20 Q That says, "This product contains asbestos fiber,"
21 blah, blah, blah, blah. And we'll talk about that more
22 with other witnesses, but replacement
23 asbestos-containing gaskets packaging should have had
24 this OSHA-approved label, correct?

25 A I would think so if that's what the requirements

1 were.

2 Q Okay. Now, you haven't seen any testimony from
3 any of the workers, including Mr. Jolly, who held those
4 replacement gaskets in his hand, that they ever had a
5 label on them, right?

6 MR. BOUCH: Objection, Your Honor. I believe that
7 misstates testimony. Also --

8 THE COURT: What's that?

9 MR. BOUCH: That misstates prior testimony, one;
10 two, it's improper redirect.

11 THE COURT: Well, we have pretty open redirect.

12 But, Ms. Farrise, you've got a witness that's on a
13 time schedule here.

14 MS. FARRISE: I know, Your Honor. I'll be almost
15 done. Thank you.

16 Q Dr. Frank -- can you put up Exhibit 136, whoever
17 has it, the September 1984 guide from Duke. And turn
18 to the next page, please.

19 Next page says this is an instructor's guide for
20 whoever Duke would pay to teach workers about the
21 hazards of asbestos, right? That's what it looks like,
22 correct?

23 A That's what it appears to be.

24 Q So if I ask whoever is doing it to turn over to
25 Page 0064, you were asked about that on

1 cross-examination --

2 A Yes.

3 Q -- this here says, "Asbestos is used very little
4 at Duke today." Let me stop there. Does that suggest
5 to you that all of that insulation and all the things
6 you were asked about, that by 1984 Duke was actually
7 committed to reducing exposures and using nonasbestos
8 products including insulation?

9 A Apparently, because it doesn't mention insulation
10 in that statement.

11 Q And so they say today they're using it to insulate
12 electrical cabinets, pack valves, and in gasket
13 material. "The asbestos in these jobs is bonded, which
14 means it produces virtually no dust." Do you see that?

15 A That's what it says.

16 Q They were wrong, weren't they?

17 A Yes. Going in it may not, but coming out, it sure
18 does.

19 Q And so Duke, in this context, is a customer, a
20 buyer, a purchaser of the companies who sold the
21 asbestos-containing products, right?

22 A Yes.

23 Q One of the reasons for Material Safety Data Sheets
24 under OSHA is because people like Duke purchasers may
25 be mistaken as to whether or not asbestos products pose

1 a health hazard, right?

2 MR. BOUCH: Objection; leading.

3 THE COURT: Ms. Farrise, you are leading a lot.
4 I've been kind of flexible about it because, frankly,
5 I'm sensitive to Dr. Frank's schedule, but let's don't
6 lead, please.

7 MS. FARRISE: Okay.

8 Q Dr. Frank, had Crosby Valves and Fisher Controls
9 done what the OSHA laws required it to do as a seller
10 of asbestos-containing products and sent to Duke a
11 Material Safety Data Sheet about the health hazards of
12 asbestos, it would have clarified for Duke, corrected
13 for Duke the clear misunderstanding that Duke has about
14 whether or not gaskets and packing can release fibers
15 in 1984; do you agree with that?

16 A As a general principle, yes, I would agree with
17 that.

18 Q Now, you were asked a bunch of questions about a
19 bunch of people. Let's take Crane gaskets quickly. If
20 Crosby and Fisher demonstrate to this jury that
21 Mr. Jolly was exposed to asbestos from Crane gaskets
22 and packing, that would be a substantial factor, right?

23 A Yes.

24 Q But if it turns out that the Crane gaskets and
25 packing material actually came from Crosby or Fisher as

1 a replacement gasket for a Crosby and Fisher valve,
2 then Crosby and Fisher would be responsible for sending
3 and selling products supplied to it by others?

4 MR. BOUCH: Your Honor, facts not in evidence,
5 misstates testimony, leading. There's absolutely
6 nothing to suggest that.

7 THE COURT: It is leading, Ms. Farrise.

8 I do overrule the objection to the content of it,
9 but you've got to do it as a direct examination
10 question.

11 MS. FARRISE: Sure.

12 Q Let me ask you to assume as a hypothetical that
13 the evidence in this case that the jury heard just
14 yesterday was that Crosby and Fisher purchased asbestos
15 from suppliers and then they sold it to other people.
16 Are you with me?

17 A Yes.

18 Q And if I ask you to assume that Crane Company
19 gaskets and packing, Crane was actually a supplier to
20 Crosby and Fisher. Are you with me?

21 A Yes.

22 Q Do you have an opinion as to whether or not, then,
23 Mr. Jolly would have actually been exposed to a Crosby
24 and Fisher product?

25 A That's the name that would have been on the

1 product as he used it.

2 Q Ordered out of a Crosby and Fisher catalog?

3 A Apparently so.

4 Q \$142,000 in bills you saw?

5 A Yes.

6 Q Did it include the big surgery?

7 A No.

8 Q Does Duke Medical University Medical Center in
9 Raleigh, North Carolina, a world-class institution,
10 charge about the same as you people charge up there in
11 New York and Philadelphia?

12 A Yes.

13 MS. FARRISE: Thank you, Doctor.

14 THE COURT: Very good.

15 Anything further?

16 MR. BOUCH: One question.

17 RECROSS-EXAMINATION

18 BY MR. BOUCH:

19 Q Dr. Frank?

20 A Mr. Bouch.

21 Q You've been asked a few questions about MSDSs?

22 A Yes.

23 Q Okay. First time we have come up with that today.

24 You do know, of course, that MSDSs were not required
25 until the OSHA amendment of June 17, 1986, don't you?

1 A I believe they became required, then they were
2 certainly available before then, but may not have been
3 required until then.

4 Q Right. So as far as anybody being required or
5 breaking the law or however it's characterized, until
6 June of 1986, there was no such requirement, was there?

7 A I didn't talk about anybody breaking the law. It
8 may not have been a requirement. It would have been
9 good, prudent business practice.

10 Q All right. And you have no knowledge of whether
11 Duke got MSDSs after that from gasket companies who
12 they may have purchased independently, do you?

13 A I do not.

14 Q Thank you.

15 THE COURT: Very good.

16 Dr. Frank, we thank you for your testimony today.
17 I'm going to release you now, and I'm going to allow
18 you to go out of the courtroom before I release my jury
19 for their break, just so you can make an attempt to
20 catch that airplane on time. Thank you very much, sir.

21 THE WITNESS: Thank you, Your Honor.

22 THE COURT: All right. Now, for our ladies and
23 gentlemen, let's have our afternoon break. I think
24 we've earned it.

25 Let's come back at quarter of 4:00.

1 (WHEREUPON, the jury exited open court at
2 3:33 p.m.)

3 MR. BOUCH: Your Honor, I had examined Dr. Frank
4 on the Oury Roggli book and Selikoff and Lee book. I
5 would like to admit those as demonstrative evidence.

6 THE COURT: I think that's just as proper as
7 Dr. Frank's treatise, so those two documents are
8 admitted as demonstrative evidence. They don't go to
9 the jury, but they're in the same category as
10 Dr. Frank's scholarly material.

11 MS. FARRISE: Excellent.

12 Can I see them first?

13 THE COURT: Let the court reporter mark them.

14 Ms. Farrise, let the court reporter mark them.
15 And, yes, they're admitted as demonstrative evidence.

16 MR. BOUCH: To the extent I didn't formally move
17 to admit, I know I used a lot of the exhibits that are
18 marked --

19 THE COURT: All exhibits used are admitted.

20 MR. BOUCH: Thank you, Your Honor.

21 THE COURT: I believe they have already come in,
22 but just to be darn sure.

23 MR. BOUCH: That's my thing, and I'll get them
24 straight for the clerk on that.

25 Thank you, Your Honor.

1 THE COURT: Anything else bookkeeping and
2 housekeeping-wise? Very good.

3 (WHEREUPON, a recess was taken from 3:35 p.m. to
4 3:56 p.m.)

5 (WHEREUPON, the jury entered open court at
6 3:56 p.m.)

7 THE COURT: Thank you, ladies and gentlemen of the
8 jury. Please take your seats.

9 As I have explained, we'll now see some videotaped
10 material and some read material that will constitute
11 the testimony of a Mr. Taylor, who was one of the
12 coworkers of Mr. Jolly for a time, worked at -- not
13 working with Mr. Jolly, but at the Duke Power
14 facilities.

15 Given the hour, I doubt very seriously if we'll
16 get through all of this testimony of Mr. Taylor today,
17 and I'm not going to try to run you late to accomplish
18 that, but what we don't get to today, why, we'll
19 adjourn at a civilized time and begin tomorrow.

20 So with that, Plaintiff, you may go forward.

21 MR. HOLDER: Plaintiffs call David Taylor by
22 video.

23 Would it be okay if we dim the lights.

24 Yes. If it gets too dark for you to see, let me
25 know. But at least we can brighten up the picture of

1 Mr. Taylor.

2 **DAVID TAYLOR**
3 **(via video and read deposition),**
4 **TESTIFIED AS FOLLOWS VIA VIDEO:**
5 **DIRECT EXAMINATION**

6 Q Good morning.

7 A Good morning.

8 Q Could you please introduce yourself to the jury.

9 A My name is David Taylor.

10 Q Where do you live, Mr. Taylor?

11 A I live in Walhalla, South Carolina.

12 Q And let's go through your background a little bit.

13 Where did you grow up?

14 A I grew up in Seneca, South Carolina.

15 Q And that's where we are today?

16 A Yes.

17 Q Where did you attend high school?

18 A Walhalla -- well, I started out at Seneca. My
19 parents moved to Walhalla, so I had to follow them
20 because there was no way I could have stayed in Seneca,
21 you know. I couldn't afford -- me being a teenager.
22 So I moved to Walhalla and finished high school at
23 Walhalla High School.

24 Q The plant you told us about was the Oconee nuclear
25 plant; is that right?

1 A Yes.

2 Q Is that where you started in 1972?

3 A Yes. May 31st, 1972.

4 Q What job were you hired on as?

5 A First, I hired on utility, and then I stayed there
6 about three months, and then I went into pipefitting.

7 Q And did it take several years for you to train as
8 a pipefitter?

9 A It took me -- me -- it takes about five, five and
10 a half years to be -- to become a qualified pipefitter.

11 Q And during that five to five and a half years,
12 were you doing pipefitting tasks but just under
13 somebody's supervision?

14 A Yes.

15 Q What areas of the Oconee plant did you work in?

16 A Well, I worked throughout the -- the whole plant
17 there from the reactor, auxiliary building, the turbine
18 building.

19 Q Did you ever work at any other Duke plants?

20 A Yes.

21 Q Were there any other Duke nuclear plants?

22 A Yes.

23 Q Which ones?

24 A McGuire and Catawba.

25 Q When were you at McGuire?

1 A Well, I stayed here about a year and a half. In
2 1974, I went to McGuire, and I worked there until '81.
3 I come back here, and then I started supporting the
4 outages; then I went back to Catawba, support there.

5 Q Let's make sure we have a pretty clear timeline.
6 May 1972 until 1974 you were just at Ocone; is that
7 right?

8 A Yes.

9 Q And then from '74 to '81 you were at McGuire?

10 A Yes.

11 Q And what were you doing at McGuire?

12 A Well, they was under construction at that time.

13 Q So you were assisting new construction throughout
14 those years?

15 A Yes.

16 Q What units at McGuire did you work on?

17 A One and two.

18 Q And then in 1981 you came back to Ocone as your
19 home plant; is that right?

20 A Yes.

21 Q During that '74 to '81 time frame, was there any
22 time that you visited Ocone?

23 A Just on the weekends. I came back in '78, support
24 an outage. I think that might have been their first
25 outage they had. I came back down here.

1 Q How long was that outage approximately?

2 A I think it's something like 74 days or 75 days.
3 75 days.

4 Q And then in 1981, Oconee became your home plant
5 again, correct?

6 A Yes.

7 Q Did you go and support other Duke plants after
8 that time?

9 A Yes.

10 Q Can you tell us the names of some of those?

11 A Well, they was like fossil plants. I went to
12 Belews Creek. I stayed about nine weeks up there. And
13 I went to Marshall. I stayed about six weeks up there.
14 That's a fossil plant. I went to Cliffside, stayed
15 about six weeks. And I went to Allen, stayed about six
16 weeks.

17 Q You mentioned Catawba.

18 A Yes.

19 Q That was a nuclear plant?

20 A Yes.

21 Q Do you remember about when you went there?

22 A I didn't go to Catawba until about early '90s,
23 like '92.

24 Q In summary, from 1972 to 1974, you were at the
25 Duke Oconee nuclear plant only, correct?

1 A Yes.

2 Q From 1974 to 1981, you worked primarily at McGuire
3 nuclear plant?

4 A Yes.

5 Q In 1978, you attended an outage at Oconee?

6 A Yes.

7 Q From 1981 to 1993 or so you were based out of the
8 Oconee nuclear plant, but you also visited various
9 fossil fuel plants that we listed earlier?

10 A Yes.

11 Q And then from 1993 to 2015, you were at the Oconee
12 plant only, correct?

13 A Yes.

14 Q As a pipefitter, would your tasks be really
15 different at a nuclear plant versus a fossil fuel plant
16 or can I talk about them all the same?

17 A About all the same.

18 Q Can you tell the jury what your job duties were as
19 a pipefitter?

20 A Well, as a pipefitter, we -- you got to be able to
21 learn how to read a blueprint, a pipe print and the
22 layout and stuff, and we take and we bolt up valves to
23 flanges and then valves to pumps and stuff like that,
24 you know. You got to learn how to read the print to be
25 able to do all that.

1 Q What is a flange?

2 A A flange is -- is two -- there is a component, got
3 holes in it and in between it, you got to put a gasket
4 in between it to seal it.

5 Q What kind of gaskets did Duke use in the '70s and
6 '80s?

7 A They was -- they was asbestos gaskets. If you
8 hooked it up to a pump or a valve, they -- most of them
9 was asbestos gaskets.

10 Q How did you know they were asbestos?

11 A Because it would be on the -- on the -- on the
12 label that comes with it.

13 Q Now, what was your job in terms of dealing with
14 those flange gaskets?

15 A Well, it was to break the flanges loose. If we
16 had to change one out, and we used -- take a scrape
17 blade, a wire brush if it's stuck, because you can't
18 leave it stuck to the -- to the flange and put a new
19 one in.

20 Q What would cause the gasket to stick to the
21 flange?

22 A Well, over time, heat -- heat and stuff would
23 cause it to stick and it may come loose, it may not
24 come loose, and then you have to scrape it off to get
25 it off. And then if you do that, you got a chance

1 of -- for it to become friable. Once it become
2 friable, then it gets out in the air.

3 Q What did the scraper you used look like?

4 A It was like a -- it looked like a screwdriver with
5 a big, wide blade on it. And a wire brush is just a
6 big, old steel brush.

7 Q Can you estimate for us how often in an average
8 week or month you would use a scraper or wire brush to
9 remove a stuck-on gasket from a flange?

10 A Probably every quarter, every -- about every, you
11 know, maybe four times out of the year. Like if you
12 broke it out like a quarter, every quarter of a month,
13 like this month we might do one valve, then it might be
14 four months we'd do another valve, and then four months
15 we'd do another valve.

16 Q You would go months at a time without working on a
17 valve?

18 A Could you say that again?

19 Q Yes. Would you go months at a time --

20 A You asked -- could you state that again?

21 Q Yeah. I think I asked a bad question. Regardless
22 of the manufacturer of valve, I just want to know in
23 general, like on an average week, how many times would
24 you have to work with a valve?

25 A Work with a valve?

1 Q Any valve.

2 A About once a quarter. Once every four -- I mean,
3 once every four months. You know, because they got a
4 lifespan they got that keeps up with. And, you know,
5 it's not every week that we works on a valve. It's
6 like maybe I might -- this month I might work on it; I
7 might work on a valve. It might be four months, I
8 might work on another type of valve.

9 Q Is it true that you only removed a gasket from a
10 flange four times a year?

11 A That was by brand. But I at least move one gasket
12 once a week. But I misunderstood what you said at the
13 beginning.

14 Q Okay. So just so we have a clear record,
15 regardless of the brands, if I were to come to the Duke
16 plant in the 1970s and find you, on an average week,
17 how many times would you remove a asbestos gasket from
18 a flange?

19 A At least once a week.

20 Q I'm going to hand you what I've marked as
21 Exhibit 4. What is that a picture of?

22 A That's -- that's a type of scrape blade that we
23 tried to remove the asbestos that was stuck to the
24 flange.

25 Q So that's not a picture of a scraper that you gave

1 me or anything, right?

2 A No.

3 Q But is that a fair and accurate representation of
4 the type of scraper you would use at Duke?

5 A Yes.

6 Q I'm going to hand you Exhibit 5. What's in that
7 picture?

8 A That is the wire brush. If it -- after you scrape
9 it and if you have any still left on there, you would
10 try to use this wire brush to remove the remaining of
11 it.

12 Q And, again, that's not a picture of a wire brush
13 that you gave me, right?

14 A No.

15 Q Is it a fair and accurate representation of a wire
16 brush that you used throughout your career?

17 A Yes.

18 Q I'm going to hand you what I've marked as
19 Exhibit 6. What's that a picture of?

20 A This is a picture of -- this is a picture of an
21 asbestos fiber that stuck to the flange and little old
22 hairlike things. That is what they call asbestos.

23 Q Now, the picture of the flange that's on
24 Exhibit 6, that's not a picture that you or I took at
25 Duke, right?

1 A No.

2 Q Okay. Is that a fair and accurate representation
3 of what types of flanges and gaskets stuck on that you
4 saw while you were working?

5 A Yes.

6 Q Final exhibit for this section. What is Exhibit 7
7 a picture of?

8 A That's a flange with asbestos stuck on it.

9 Q Is that a zoomed-out version of Exhibit 6?

10 A Yes. You say is it? Exhibit 6?

11 Q Does that look like it's a flange from further
12 away?

13 A Yes.

14 Q That's not a picture that you took, correct?

15 A No.

16 Q Is that a fair and accurate representation of the
17 types of flanges you would see at Duke?

18 A Yes.

19 Q What did it look like around you when you would
20 use a scraper or a wire brush to remove stuck-on
21 gaskets?

22 A Well, what it looked like? Well, you have -- you
23 have some of that will float into the air, some will
24 fall to the floor, and if it -- if it floats in the
25 air, it becomes friable. I mean, it's easy for you to

1 breathe in.

2 Q Did you, in fact, breathe in the parts of the
3 gaskets that were floating in the air?

4 A Yes, because there's no way you can get around it.

5 Q Now, it was only your job as a pipefitter to
6 remove and replace the gaskets that were on the flanges
7 of the valves?

8 A Yes, that's correct.

9 Q Did the valves have internal gaskets as well?

10 A Yes.

11 Q Whose job was it to work on those gaskets?

12 A Well, they got different people. They got valve
13 people, and they took care of stuff like that.

14 Q Did they go take the valves off to a separate area
15 of the building?

16 A No. They would mostly work in the area there,
17 unless it was a real small valve. But if it's a big
18 valve, they take it and they drop it down at the
19 location there.

20 Q Where were you when they were doing that work?

21 A Well, sometimes I'm three to four feet away from
22 them.

23 Q What tools would they use to remove internal
24 gaskets?

25 A They used -- sometimes they used a scrape blade,

1 and they used this, they call it, pick. It's more -- a
2 little bit smaller than a scrape blade.

3 Q Okay. It's called a pick?

4 A Yes.

5 Q Would the gaskets be stuck internally the same way
6 you described on the flanges, or would they come off in
7 one piece?

8 A Sometimes they would be stuck.

9 Q Would it look the same way --

10 A Yes.

11 Q -- in the area that you already described?

12 A Yes.

13 Q Did the valves at Duke utilize something called
14 packing?

15 A Yes.

16 Q What is packing?

17 A Packing is something that keep the valve from
18 leaking water back through the stem of the valve.

19 Q What kind of packing did they use at Duke?

20 A They used -- sometimes they use graphite, and then
21 they used asbestos packing.

22 Q So when the valve technician would remove packing
23 in the way you described earlier, where were you?

24 A Probably three to four feet, because we're working
25 in a room, and, I mean, everybody working in a room,

1 everybody doing -- doing what they're supposed to be
2 doing.

3 Q And there wasn't a special valve packing room,
4 correct?

5 A Right.

6 Q What tools did they use to remove the packing?

7 A They used a scrape blade, and they used this
8 little thing called a pick, where you go in there, and
9 it's got a sharp part in it there where they get ahold
10 of it and pulled it out.

11 Q Now, what --

12 A Anyway, it come out.

13 Q What did the packing look like when it came out?

14 A Well, sometimes it comes out whole and sometimes
15 it comes out in pieces.

16 Q And when the packing came out in pieces, on the
17 occasions that you were three or four feet nearby, did
18 you continue to breathe during that time or did you
19 hold your breath?

20 A I continued to breathe.

21 Q And I know that there were lots of -- let me start
22 that over.

23 Is there any way for you even to estimate how many
24 valves were at the Duke Ocone plant, for example?

25 A Oh, my goodness. Hundreds of them.

1 Q Okay. And so there were some valves that you
2 maybe walked by and saw the name on them but you never
3 touched them; is that right?

4 A Yes.

5 Q I want to ask you about what valves, whether at
6 Ocone or McGuire or these fossil plants, that you
7 remember connecting and disconnecting from the pipes
8 and others removing gaskets and packing from them,
9 okay? And only those valves that utilized asbestos
10 gaskets and packing. Is that fair?

11 So that's my -- that's what I want to limit my
12 question to, okay?

13 Which manufacturers of valves was that the case
14 for?

15 A Well, I had the Crane valve, Anchor/Dar valve,
16 Kennedy valves, Grinnells. I worked on Fisher valves,
17 Chapman valves. I worked on Velan. I think it's
18 V-e-l-a-n. I think it's something like that. And then
19 we had the Newco valves. And man, there's so many. I
20 think I -- did I call Grinnell? The Kennedy valve, and
21 the Edward, and Crosby, Crane valve, Anchor/Dar.

22 Q Sound good? Okay. Let's talk about the Crosby
23 valves that you mentioned, okay? Do you remember what
24 types of valves the Crosby valves were?

25 A Some of them was like a -- air valves and where it

1 takes air to operate them, and some of them was like
2 gate valve.

3 Q Let's talk about the Crosby air valves. Did those
4 connect to pipes using flanges?

5 A Yes.

6 Q Did those flanges utilize gaskets?

7 A Yes.

8 Q What type of gaskets?

9 A Asbestos.

10 Q Did the Crosby air valves have internal gaskets
11 and packing?

12 A Yes.

13 Q What type of gasket?

14 A Asbestos.

15 Q What type of packing?

16 A Asbestos.

17 Q For the Crosby gate valves, how were those
18 connected to pipes?

19 A With -- they flanged together with asbestos gasket
20 in between them to flange, the two flanges.

21 Q Did the Crosby gate valves utilize internal
22 gaskets?

23 A Yes.

24 Q Did they utilize internal packing?

25 A Yes.

1 Q Just because of the cough and the objection, can
2 you state your answer again?

3 A Yes.

4 Q How close were you standing nearby when people
5 removed gaskets and packing from inside the Crosby gate
6 valve?

7 A About three to four feet.

8 Q What were those internal gaskets made out of?

9 A Asbestos.

10 Q What about the packing?

11 A Asbestos.

12 Q Did you breathe dust from the flange gaskets that
13 you removed on the Crosby air and gate valves?

14 A Yes.

15 Q Did you breathe dust from the internal gaskets and
16 packing that other people removed from the Crosby air
17 and gate valves?

18 A Yes.

19 Q Did any of those Crosby valves have any warnings
20 on there about you should wear a mask or respirator
21 when you're working with their product?

22 A No.

23 Q Let's talk about the Fisher valves that you
24 mentioned. What type of Fisher valves did you
25 encounter in your career?

1 A What type? They got like a gate valve, you know.
2 They used -- move water around throughout the different
3 locations throughout the plant.

4 Q Which plant or plants are you talking about?

5 A I'm talking about like McGuire, Ocone, Catawba.

6 Q In terms of how many Fisher valves there were and
7 that you worked on, were there more than average or
8 same average or less than average?

9 A Probably average.

10 Q How were the Fisher gate valves connected to the
11 pipes?

12 A They flanged together with asbestos gasket in
13 between the two flanges.

14 Q And what tools did you use to remove the asbestos
15 gaskets from the Fisher flanges?

16 A The scrape blade and the wire brush.

17 Q Did they look just like the exhibits we went
18 through earlier?

19 A Yes.

20 Q Did you continue to breathe while you were doing
21 that work?

22 A Yes.

23 Q Did the Fisher gate valves utilize internal
24 gaskets?

25 A Yes.

1 Q And what were they made out of?

2 A Asbestos.

3 Q Did the Fisher gate valves utilize internal
4 packing?

5 A Yes.

6 Q What was that made out of?

7 A Asbestos.

8 Q How close -- well, whose job was it to remove the
9 internal gaskets and packing?

10 A The valve -- they call it valve team.

11 Q And how close were you to the valve team when they
12 were doing this type of work?

13 A Probably three or four feet.

14 Q Do you breathe the dust that was associated with
15 that work?

16 A Yes.

17 Q Did the Fisher valves have any kind of a warning
18 on there about precautions that people like you should
19 take to protect themselves from the hazards of
20 asbestos?

21 A No.

22 Q During a lot of these questions I've asked you
23 what the gaskets and packing were made out of and you
24 indicated asbestos. How do you know that?

25 A Because when -- when the -- when the gasket come,

1 it had it on the label that was asbestos gasket.

2 Q When you removed the gasket, you told us you had
3 to put in a new one, right?

4 A Yes.

5 Q Where would you get the new gaskets?

6 A From the manufacturer that they -- from the
7 manufacturer in which they send it to the warehouse,
8 and we pick it up at the warehouse.

9 Q How did you know they came from the manufacturer?

10 A Because they was the only one know what size that
11 it takes to fit the flange.

12 Q For the next few exhibits, we've got some
13 documents that show sales to the Ocone nuclear plant.
14 For all of these, these were not documents that you
15 gave me, correct?

16 A Correct.

17 Q You don't have any documents from invoices for the
18 plant, right?

19 A No.

20 Q There's no reason you would, right?

21 A Huh-uh, no.

22 Q I would like to mark as Exhibit 11 -- what is the
23 manufacturer name at the top of this document?

24 A It's Fisher Control International Incorporation.

25 Q And who is it shipping to?

- 1 A Duke Power Company.
- 2 Q For what station?
- 3 A Oconee Nuclear Station, which is in Seneca.
- 4 DEPO REPORTER: Which is what?
- 5 A In Seneca, Highway 130.
- 6 Q About halfway through, we see a Purchase Order
- 7 Number A06650-77, Page 4. Do you see that?
- 8 A Yes.
- 9 Q Do you see where it says halfway down that Fisher
- 10 Controls was selling a packing set for the -- for their
- 11 ball valves?
- 12 A Yes.
- 13 Q On the same page, do you see that they were
- 14 selling gaskets made with asbestos?
- 15 A Yes.
- 16 Q And is that for a flanged fitting?
- 17 A Yes, because that was a spiral-wound material-type
- 18 gasket that had asbestos in it. A lot of them were
- 19 calling for Flexitallic gasket.
- 20 Q So just because something is Flexitallic, that
- 21 doesn't mean it's not asbestos, right?
- 22 A That's right.
- 23 Q And another page in this packet, we see Purchase
- 24 Order Number C32108-K2, Page 3. Did I read that
- 25 correctly?

1 A Yes.

2 Q Do you see on this page there is a sale of gaskets
3 for type relay?

4 A Relay, yes.

5 Q And on the same page, we see gasket size,
6 quarter-inch thick; material, asbestos; application,
7 Fisher Control pressure relief valve. Did I read that
8 correctly?

9 A Yes.

10 Q Do you remember working with Fisher control relief
11 valves?

12 A Yes.

13 Q Does this document correspond with your memory
14 that manufacturers like Fisher sold asbestos gaskets to
15 Duke for use at the Oconee Nuclear Station?

16 A Yes.

17 Q Who manufactured the turbines at McGuire?

18 A Westinghouse.

19 Q How many of them were there?

20 A I guess, might be six.

21 Q Was it your job to work on the turbines?

22 A No.

23 Q Do you believe you were exposed to asbestos from
24 the Westinghouse turbines at McGuire?

25 A Yeah, because they do the same. They set it off

1 to the side and rope it off.

2 Q Was there anything different about the process of
3 removing the shells and roping it off at Ocone than it
4 was at McGuire?

5 A No.

6 Q How often would you have to walk by Westinghouse
7 turbines at McGuire that had the shells off where you
8 could see the insulation?

9 A Well, you don't have to -- Ocone is a little bit
10 different than McGuire. You don't really have to go
11 from the turbine building to -- through the -- I mean
12 through the turbine building past the turbines to get
13 to the auxiliary building. They got a little different
14 route.

15 Q Okay. So was there -- was there any reason you
16 would have to walk by the Westinghouse turbines at
17 McGuire?

18 A If you was -- if you were working on some hangers,
19 which we used to work on hangers, and you would have to
20 go in there, you would have to go up there, and they've
21 got spraying pan hangers and stuff like that. So if
22 they take a pipe, take a pipe out of the system, you
23 have to block the spraying can, so you up there
24 blocking the spraying can, and then they take the pipe
25 out.

1 Q Okay. So at Ocone with the GE turbines, just
2 part of your daily cycle, you'd have to walk past them
3 three times a day, right?

4 A Yes. If you got any business in the auxiliary
5 building, you have to go by.

6 Q But it was a little bit different at McGuire,
7 right?

8 A Yes.

9 Q Can you estimate for us, whether it's in terms of
10 number of times per day or week or month that you would
11 see the insulation on the Westinghouse turbines within
12 three feet of you? I'll reask the question.

13 The objection can stand.

14 Is there any way for you to estimate for us at
15 McGuire how often you would be within a few feet of the
16 insulation on the Westinghouse turbines?

17 A Well, it's going to be a little bit broader.
18 Probably about five or six feet for there.

19 Q And how often would you be about five to six feet
20 from them?

21 A That's if I got work to do up there. That's how
22 long my work lasts.

23 Q Would it be once a week or once a month, or can
24 you estimate?

25 A When all this activity starts taking place, that's

1 the critical part, when an outage is going on. So it
2 might be -- it might be every day twice a day.

3 Q And how often do they do outages at Ocone?

4 A Every two years.

5 Q How often do they do outages at McGuire?

6 A The same.

7 Q How long does an outage last?

8 A I'd say anywhere between 25 to 30 days. They,
9 like, prefer to do it in 25 days.

10 Q I'd like to ask you about some of the people that
11 you worked with at Duke, okay?

12 A All right.

13 Q Did you ever work with a gentleman named Dave
14 Jolly?

15 A I've been around him, yes.

16 Q What do you remember about Mr. Jolly?

17 A Well, he worked on the pumps, and I think he
18 worked on that for many years. Then he became a
19 supervisor there.

20 Q About what decade do you first remember seeing
21 him?

22 A Oh, probably early '80s.

23 Q Did he work on the inside of pumps?

24 A Yes.

25 Q And would he have been near you when you were

1 removing --

2 A Yes.

3 Q -- the flange gaskets from pumps?

4 A Yes.

5 Q Do you remember anything about Mr. Jolly
6 personally?

7 A Not really, because we kind of -- you know, he did
8 what he had to do, and I did what I had to do. You
9 know, we talked, but not on a regular basis.

10 Q Do you believe that Mr. Jolly was exposed to
11 asbestos in the same manner that you were to the
12 different pumps that he worked with?

13 A Yes.

14 Q Would Mr. Jolly have ever personally done work on
15 valves?

16 A Not to my knowledge.

17 Q Would he have been standing nearby in the same
18 manner that you were?

19 A Yes.

20 Q Do you believe Mr. Jolly was exposed to the same
21 asbestos associated with the valves that you were?

22 A Yes.

23 Q And what is that based on?

24 A What's that?

25 Q And what is your belief of that based on? Was it

1 what you saw with your own eyes?

2 A Yes.

3 Q Which plants did you work with Mr. Jolly at?

4 A At Ocone.

5 Q I'd like to talk to you a minute about safety in
6 general. When did you realize that asbestos was
7 hazardous and could cause disease?

8 A When I really, really got a real grip on it,
9 probably '80s, in the mid '80s and early -- mid '90s.

10 Q Did you start doing anything differently once you
11 knew asbestos was hazardous?

12 A Yes.

13 Q What did you do?

14 A Well, we started wearing -- we have respirators.
15 We got a full-face respirator; then we have a half-face
16 respirator. You have to be fitted to get those. You
17 can't -- I mean, you can't just go and ask for it. You
18 have to be fit test for that because it's a rubber seal
19 that goes around your face, in contour with your face.

20 Q Did you get fitted for those?

21 A Yes. You got three sizes. You got small, medium,
22 and extra large. Well, you got four. You got small,
23 medium and large and extra large.

24 Q If you had known when you started in 1972 that
25 asbestos could cause cancer, when would you have

1 started wearing that respirator?

2 A As soon as possible.

3 Q How does it make you feel to know that you were
4 unprotected for all those years?

5 A Real bad.

6 MR. HOLDER: That is the end of Volume 1, Your
7 Honor.

8 THE COURT: All right. Let's put the lights back
9 up, if you could.

10 MR. HOLDER: May I approach for one second?

11 THE COURT: Yes.

12 (WHEREUPON, a bench conference was held off the
13 record in the presence of the jury, but out of the
14 hearing of the jury.)

15 THE COURT: Members of the jury, we're now going
16 to hear some recited testimony. It's still Mr. Taylor,
17 but all of his depositions were not video-recorded.

18 And just to explain to you, I'm sure you noticed,
19 as I did, that it kind of jumped around a little bit as
20 you were viewing. It's because the parties have cut
21 down -- they're not going to make you go through
22 listening to and seeing the entire deposition audio and
23 going through the several volumes of testimony. They
24 have sliced down the testimony to give you the parts of
25 it that they think are pertinent and most helpful to

1 you from the case. So we're going to be jumping around
2 a little bit, but it's all in aid of not taking the
3 lengthy period of time to put just volumes and volumes
4 of material but rather focus on some things that are
5 believed to be something to help you in the case.

6 All right. Very good.

7 Now, Mr. McLeod is going to be taking the role of
8 Mr. Taylor, and Mr. Reid will take the role of the
9 attorney who was examining Mr. Taylor.

10 All right, Mr. Reid.

11 MR. REID: Thank you, Your Honor.

12 Just so all three of us, Yancey and Jonathan and
13 myself, are on the same page, 206.

14 CROSS-EXAMINATION

15 Q You would be around when the insulators were
16 cutting and sawing the steam insulation that was being
17 applied to the pipes?

18 A Yes.

19 Q Did -- and when those pipes were cut and sawed,
20 particularly when they had to cut them at an angle, at
21 a 90- or 45-degree angle, when they sawed that
22 insulation, that created dust, didn't it?

23 A Yes.

24 Q And did you breathe that dust that was being sawed
25 by the insulators?

1 A Yes.

2 Q And they also have to apply cement or mud? Do you
3 recall that, when they would do --

4 A I think they called it mud.

5 Q Right. You've seen insulators actually apply mud?

6 A Yes, sir.

7 Q And when they mixed that mud, that mud came in
8 bags, didn't it?

9 A Yes.

10 Q It was like -- kind of like dry cement, wasn't it?

11 A Yes.

12 Q And when they poured that -- did they have to pour
13 those bags out into wheelbarrows or vats?

14 A A bucket.

15 Q A bucket. And when they poured that, that cement
16 out, it would create dust, wouldn't it?

17 A Yes.

18 Q And were you around when that dust -- when those
19 bags were being poured out?

20 A Sometimes.

21 Q And you would have to breathe that dust, wouldn't
22 you?

23 A Yes.

24 Q In fact, some of the companies that you sued in
25 your first lawsuit and from whom you got checks from

1 the bankruptcy trust were companies that made
2 asbestos-containing insulation like pipe coverings?

3 MR. HOLDER: Objection, Your Honor.

4 May we approach?

5 THE COURT: Ladies and gentlemen, there is some --
6 Mr. Taylor was making some mention of a bankruptcy
7 trust and his claim. His claim, of course, is not
8 being tried here, so disregard that part of what they
9 just read, and they will continue.

10 Continue, Mr. Reid.

11 MR. REID: 210, line 17.

12 Q As far as your understanding, Duke would
13 provide -- Duke would specify various products and
14 various types of work, and it was your job to just
15 follow those specifications and do what Duke basically
16 asked you to do?

17 A Yes.

18 Q Do you remember Kaylo?

19 A Yes, sir.

20 Q And the insulators -- you know Kaylo was what, a
21 pipe covering?

22 A Yes.

23 Q Two half-rounds? You know what I mean?

24 A Right. I know what you're talking about.

25 Q And they would apply -- the insulators would

1 follow you; the pipefitters, they would apply the
2 insulation. Would they then wire it on after, wire it
3 together?

4 A Yes.

5 Q When they wired it together, they had to beat it
6 into the Kaylo, didn't they?

7 A Yes.

8 Q Isn't that what they did?

9 A Yes.

10 Q Once they had beaten it in, when they were doing
11 some 45s or 90s, they would have to use some mud,
12 right?

13 A Yes, yes.

14 Q And they were -- how far away from you were they?

15 A I mean --

16 Q I mean, how far away were the insulators?

17 A I don't know. Might have been, sometimes
18 probably, I don't know, eight feet maybe.

19 Q Okay.

20 A Sometimes.

21 Q A lot of pipe at Ocone?

22 A A bunch.

23 Q Miles and miles?

24 A Exactly.

25 Q And all -- okay. And all that pipe had to be

- 1 insulated, didn't it?
- 2 A Yes.
- 3 Q And did Duke insulators do that work?
- 4 A Yes.
- 5 Q During that time, did you ever see boxes of
- 6 insulation material?
- 7 A I didn't see no box. I seen bags.
- 8 Q You saw the bags?
- 9 A Yeah, I saw the bags.
- 10 Q Do you remember the names of any of the bags right
- 11 now?
- 12 A I know that Owens Corning was -- was a name.
- 13 Q Okay. Do you remember -- do you remember Johns
- 14 Manville bags?
- 15 A I don't remember.
- 16 Q Eagle-Picher?
- 17 A Sir?
- 18 Q Eagle-Picher?
- 19 A No, sir.
- 20 Q That doesn't ring a bell, okay. Any Philip Carey
- 21 products? Do they ring a bell?
- 22 A Yeah, I've heard of that.
- 23 Q And did you first meet -- sorry. Okay. When did
- 24 you first meet Mr. Jolly, do you recall?
- 25 A I think it was like the mid '80s.

1 Q Mid '80s?

2 A Yeah, early '80s.

3 Q Page 218.

4 Let me ask you, back on Ocone. How big are the
5 units? I mean, are we talking about football -- what
6 size? Big as a football field?

7 A Bigger than a football field.

8 Q Each unit?

9 A Probably as big as about three or higher football
10 fields.

11 Q Each unit was about three to four football fields?

12 A You're talking about units?

13 Q Yes, sir.

14 A You're talking about the round?

15 Q Yes, sir.

16 A Yes, sir. The round, that's a reactor.

17 Q Where you would be working out of -- when you were
18 working at Ocone, your work area, how big was it?

19 A Oh, it was -- I mean, the turbine building is big.
20 It's probably three football fields.

21 Q Right.

22 A And the reactors at Ocone is 200 foot tall.

23 Q Page 222.

24 Did you take any steps at that point to avoid
25 being around asbestos?

1 A When they told us about the stopping, we didn't
2 know about it until about the mid '80s. You understand
3 what I'm saying?

4 Q Not really. Help me. You're saying you heard in
5 1977 that they were stopping using asbestos insulation;
6 is that right?

7 A Well, I'm saying like 1983. That's when the word
8 got out at Duke that -- we had more knowledge that Duke
9 had stopped the insulation, asbestos insulation, in '77
10 to get rid of all of it.

11 Q You're saying they stopped it in '77, but they
12 didn't tell you until '83?

13 A Well, I didn't realize it until about '83 or
14 something like that.

15 Q Okay. Well, when you -- why do you think they
16 didn't tell you?

17 A Well, you know, I don't know. You know, people
18 talk to different people.

19 Q Okay. But they didn't tell you until 1983?

20 A I didn't get real knowledge of it until then.

21 Q Okay. Well, up until, let's say, 1977 at McGuire,
22 and particularly those early years, '74, '75, were the
23 insulators, as far as you know, still using asbestos
24 insulation products like Kaylo?

25 A Yeah.

1 Q Okay. And would you be around those insulators
2 when they were cutting and sawing that insulation
3 material?

4 A Yes.

5 Q And you would breathe that dust when they cut and
6 sawed that insulation, wouldn't you?

7 A Yeah.

8 Q And did they ever use a band saw? Did you ever
9 see them use band saws?

10 A No. It was like a hack saw, a wood saw.

11 Q Right. And they created a lot of dust when they
12 cut it, didn't they?

13 A Yeah.

14 Q Yes?

15 A Yes, sir.

16 Q Okay. And when you're putting in new pipe and the
17 insulators were following you at McGuire, everything
18 you're doing is new construction?

19 A Yes.

20 Q And the insulators are putting in new
21 asbestos-containing insulation?

22 A Yes, yes.

23 Q I want to explore a little bit more about the --
24 about when did -- when did Duke first tell you there
25 was a potential hazard about asbestos?

1 A Probably mid -- probably '83 when they really told
2 us all -- started getting more educated about the
3 asbestos.

4 Q Did you have classes?

5 A Well, we didn't start having classes until --
6 until like '80s and early '90s. But in 19- --

7 Q But it's your recollection that in 1983 you were
8 advised by Duke Power that asbestos was a potential
9 hazard?

10 A Yes.

11 Q Were dust masks or respirators available at Duke
12 Power in 1978?

13 A No.

14 Q When did Duke start putting up -- did Duke ever up
15 any signs to indicate that you needed to take
16 precautions when working with or around
17 asbestos-containing materials?

18 A They started putting signs up back like in the
19 late '80s, early '90s.

20 Q And what would those signs say?

21 A They would probably say something like
22 "asbestos-containing substance in the area."

23 Q And would they say you needed to take precautions?

24 A Yes.

25 Q And what precautions would you take, then?

1 A If you were working in the asbestos area, you
2 needed to have a respirator on.

3 Q Do you remember when OSHA came in? Let me start
4 over. Have you heard of OSHA?

5 A Oh, yeah.

6 Q Do you recall the year that OSHA regulations came
7 into effect?

8 A I think they came -- came in the mid '70s.

9 Q Okay. Were you aware that there were asbestos
10 (sic) regulations that dealt with asbestos?

11 A Yes.

12 Q Is it your -- do you know whether -- Duke, do you
13 have any knowledge about whether Duke was aware that
14 OSHA regulations dealt with asbestos?

15 A No.

16 Q Did OSHA -- did Duke have a safety department?

17 A Yes, sir.

18 Q Did they have a safety department when you started
19 in 1972?

20 A Yes, sir.

21 Q Did they have -- did you -- after OSHA came into
22 effect, are you aware of any studies that were done by
23 Duke Power to determine the asbestos levels that may
24 have been in the air in a work environment?

25 A No.

1 Q Did you ever see Duke do any air testing or air
2 monitoring to determine whether dust levels may have
3 exceeded what was called the permissible exposure
4 limit?

5 A No.

6 Q And even in the late 1980s, did you ever see Duke
7 do any air monitoring?

8 A In the late '80s, I did see that, but not in the
9 '70s.

10 Q Right. Did Duke ever discuss with you the need
11 for wetting down any material that may contain
12 asbestos?

13 A In the late '80s or early '90s, that was talked
14 about, wetting it down.

15 Q But in the mid '70s or --

16 A No.

17 Q -- or late '70s, did they talk about -- they
18 didn't talk about it?

19 A No.

20 Q After they talked about it in the mid to late
21 '80s, 1980s, did you wet down material --

22 A Yes..

23 Q -- when you were going back to work with material
24 that may have contained asbestos?

25 A Yes.

1 Q And what would you do?

2 A Well, you would use -- sometimes -- sometimes if
3 you can glove bag it -- they used to talk about glove
4 bagging it. We had training on how to glove bag
5 asbestos material. And then it talked about you wet it
6 down. You just take a -- in fact, they called it
7 mineral water. It's deband water and you wet it down.
8 It's deband water. It's not regular water.

9 Q How would you get it onto the material? How would
10 you do it? Would you spray it on?

11 A You would spray it on with a spray bottle.

12 Q For example, if you were removing a gasket from a
13 flange that may have contained asbestos, would you
14 spray it?

15 A Yes.

16 Q Well, when did you say you started spraying, mid
17 to late 1980s?

18 A Late '80s and '90s.

19 Q So in the late 1980s, if you were removing a
20 gasket from a flange, you would spray that gasket down
21 first?

22 A Yes.

23 Q And you would also have a mask or respirator on,
24 wouldn't you?

25 A Yes.

1 Q And would the other members of your crew also
2 spray down?

3 A Yes.

4 Q And they would also be wearing --

5 A Yes.

6 Q -- masks or respirators, right?

7 A Yes.

8 Q Page 262.

9 Okay. Anything else you wanted to --

10 A Well, that right there, that I don't know as --

11 I'm jumping too far ahead. You're talking about, and I
12 think I give you the '83 about the respirator and stuff
13 like that.

14 Q Yes, sir.

15 A But if I said that, I didn't mean to say it like
16 that. It's like mid '80s or late '80s or early '90s,
17 we did the study. We started studying about the -- the
18 asbestos -- I mean, the respirator part like '86, '87,
19 something like that. But trying to get everybody to
20 understand how to go about -- how to wear the
21 respirator, you know, training up to it, and we started
22 using it like in '81, '82.

23 Q Do you mean '91 or '92? You just said you started
24 wearing it in '81 or '82.

25 A Excuse me? So like '86, that's where we got all

1 the training up on that, but we started using them like
2 '91, '92, something like that.

3 Q I think the record will reflect he didn't start
4 learning in '86 and started wearing them in '81,
5 obviously.

6 THE COURT: What now?

7 MR. REID: Your Honor, 264, Line 7.

8 THE COURT: Okay.

9 Q Okay. Now, were there any kind of -- you said --
10 and I want to just try to get it straight here. You're
11 saying that you first -- well, you had a training
12 session in 1986?

13 A Somewhere right in there.

14 Q On how to use the respirator?

15 A That's going to start like, you know, they started
16 telling us that that's where we're going to start
17 using, to help us be more aware of the dust and stuff
18 that we breathe in.

19 Q Right. And, but, so they did training on
20 respirators in 1986 regarding asbestos?

21 A Yes.

22 Q And you're saying it took them five years to give
23 you the respirator?

24 A Well, we were studying. They were doing studies
25 and stuff and trying different stuff, you know.

1 Q And so did -- when you had training in 1983 or
2 1984 --

3 A We were talking about classroom.

4 Q Did you not have any training at least by 1984 on
5 respirators?

6 A Not to my knowledge.

7 Q Okay. You're not aware of any Duke documents in
8 1984 that discussed either the use of respirators or
9 the potential hazards of asbestos?

10 A They might have come out, but I'm saying, sitting
11 in the class, if they want you to get familiar with it,
12 they set up a class, and they have a certain guy
13 training us, talking about the respirator. I think it
14 might have started in '74, but we didn't have classroom
15 sessions probably until '86 or something like that.
16 Probably a couple of years later.

17 Q Okay. So you already know about the potential
18 hazards of asbestos, though, in 1983?

19 A Yes, yes.

20 Q They're talking to you about the use of
21 respirators -- what I hear you saying now is in --
22 let's just say '84 to '86.

23 A Yes.

24 Q And you're saying that it took Duke five years
25 almost before they required or requested that you and

1 your other coworkers wear respirators when working with
2 or around asbestos-containing products?

3 A That I -- that I -- that I actually wore the
4 respirator.

5 Q Okay. But at least when you were getting training
6 in 1986, you're getting trained by Duke employees, by
7 Duke safety people, on the hazards of asbestos?

8 A Yes.

9 Q 276, 18.

10 You didn't work with or around insulation?

11 A I worked around -- with people that worked around
12 it, but I never --

13 Q You didn't apply the insulation, did you?

14 A No, sir.

15 Q But you worked in the area where insulators were
16 doing insulation work?

17 A They were all there, yes.

18 Q I'm sorry?

19 A Yes.

20 Q When I'm mentioning them, I think you told me that
21 you worked with Mr. Jolly in the mid '80s; is that
22 right, at Ocone?

23 A That's when I first met him, worked around him. I
24 never did -- we never did, you know, work, you know,
25 work close. You know, we talked from time to time but

1 not on a regular basis.

2 Q Right. Were y'all on the same crew or different
3 crews?

4 A Different crew.

5 Q So you weren't working with him on a daily basis
6 when you were at Ocone?

7 A No, sir.

8 Q Is that correct?

9 A No. We might have been in the area and, you know,
10 everybody talking and mingle around, and that's about
11 it.

12 Q All right. You recall the first time that you
13 would have worked even in the area with him or just the
14 mid '80s?

15 A No, sir, just mid '80s.

16 Q Okay. Do you recall the last time?

17 A No, sir.

18 Q Are you able to remember a specific time or job
19 site where you can say that you saw Mr. Jolly working
20 on or around a specific brand of valve or pump?

21 A No, sir.

22 Q Okay. Now, Mr. Glenn and Mr. Jolly -- well, at
23 least Mr. Jolly, would you agree that he would start --
24 was he wearing a respirator the same time that you
25 started wearing a respirator?

1 A Yes.

2 Q I want to switch gears and ask -- you talked about
3 gaskets yesterday. Would you agree that there are
4 different types and different compositions of gaskets?
5 In other words, gaskets can be made of a lot of
6 different things, can't they?

7 A Yes, sir.

8 Q And I know you've talked about asbestos-containing
9 gaskets.

10 A Yes.

11 Q But gaskets can also be made out of cork, can't
12 they?

13 A Yes.

14 Q And they can be made out of -- or there can be
15 rubber gaskets, right?

16 A Yes, yes.

17 Q Are you familiar -- and are you familiar with
18 Teflon or Teflon-coated gaskets?

19 A Yes.

20 Q Okay. Would you agree that there are different
21 materials that make up packing?

22 A Yes, sir.

23 Q Would you agree that there's some nonasbestos
24 packing?

25 A Yes, sir.

1 Q Are you familiar with mechanical seals?

2 A Yes, sir.

3 Q And what is that?

4 A That's a -- it's a type of -- it's a metal. It's
5 not -- it's not -- I think -- I think you have to --
6 it's like a cup. They got different shapes of them,
7 and you have to -- they have to sit in a certain way to
8 be able to seal.

9 Q Now, would you agree that certain pieces of
10 equipment, some valves or pumps, have mechanical seals?

11 A Yes, sir.

12 Q Do you recall which ones did or not?

13 A No, sir.

14 Q Okay. For any specific valve or pump, are you
15 able to recall how many times you removed a flange
16 gasket from that valve or pump?

17 A From a specific brand?

18 Q I guess that's the question, actually.

19 From a specific brand?

20 A Oh.

21 No, sir.

22 Q And for any specific valve or pump, are you able
23 to say how many times you were around others while you
24 were working -- the valve -- the valve techs or the
25 pump techs -- when they were working on any specific

1 valve or pump?

2 A No, sir.

3 Q So the engineer, the Duke engineers, knew what
4 y'all were doing on the pumps and valves and knew when
5 you were doing it?

6 A Yes.

7 Q Okay. And they're the ones -- did they have
8 the -- did they draw up specifications or guidelines
9 for maintaining the valves and pumps?

10 A Yes, yes.

11 Q 305.

12 I'll try to be quick. My name is Jake Bibis, and
13 I have some questions about valves for you.

14 Yesterday you initially testified that you worked
15 with valves generally about once per quarter or once
16 every four months, correct?

17 A Yes.

18 Q Okay. And you listed, on my count, 12 different
19 brands of valves. Does that sound about right?

20 A I don't know.

21 Q One of those valves was Fisher. Do you remember
22 that?

23 A Yes.

24 Q Okay. You testified that Fisher was average as
25 opposed to above average or below average, correct?

1 A Yes.

2 Q Okay. Are you able to tell me how many times you
3 recall working with or around a Fisher valve?

4 A Could I tell you?

5 Q Right. Do you know how many times?

6 A Well, just a routine thing I can do. I can't tell
7 you how many times.

8 Q Sure. So if you were working on valves of a
9 specific brand about once every four months or once
10 every quarter, are you able to tell me, if that's
11 consistent with how often you worked with a Fisher
12 valve, would it be more or would it be less?

13 A It would probably be more.

14 Q Okay. And your work would be disconnecting and
15 reconnecting the Fisher valve from the line, correct?

16 A Yes.

17 Q And doing some flange gasket work?

18 A Yes, sir.

19 Q And as you've testified, it was the valve techs,
20 as you called it, the valve team, who work solely on
21 the internal components, right?

22 A Yes, sir.

23 Q You never did any of that with Fisher valves?

24 A No.

25 Q Okay. What sites, what locations do you recall

1 seeing Fisher valves?

2 A They got them at Oconee, McGuire.

3 Q Okay. Oconee and McGuire?

4 A They might have some at Catawba.

5 Q Okay.

6 A I'm not sure.

7 Q So you don't specifically remember seeing them at
8 Catawba, do you?

9 A No.

10 Q Okay. Let's talk a little bit about what the
11 Fisher valves looked like. You said they're gate
12 valves, correct?

13 A Yes.

14 Q And they had water running through them?

15 A Yes.

16 Q Do you recall the temperature of the water?

17 A No, sir.

18 Q Okay. And any way to give an estimate of what the
19 temperature may be?

20 A No, sir, unless I got a drawing.

21 Q Right. Okay. Do you remember ever seeing a
22 drawing for a Fisher valve?

23 A Yes.

24 Q Specifically, you do?

25 A If you got a pipe drawing, you're going to have --

1 you're going to have a list of valves in that line.

2 And they got design temperature.

3 Q Okay. Do you have a specific recollection of
4 seeing a drawing for a Fisher valve at any of the
5 locations?

6 A Yes, sir.

7 Q Okay. And would that be at either Oconee or
8 McGuire?

9 A Yes, sir.

10 Q Okay. Other than gate valves, do you remember any
11 other type of Fisher valves you may have worked with or
12 around?

13 A No.

14 Q Okay. Do you recall what type of system or
15 equipment the Fisher gate valves were on?

16 A No.

17 Q Do you remember the size of the Fisher gate
18 valves?

19 A Different sizes.

20 Q How about --

21 A I can't -- I can't -- they got different sizes.

22 Q Okay. What about the size of the pipe? Can you
23 give me a range of the size of the pipe that would be
24 going in and out of a Fisher valve?

25 A No.

1 Q No. Okay. Do you remember how the Fisher valves
2 were operated? Let me break that down for you. Were
3 they operated manually, electrically, pneumatically, or
4 by air?

5 A They were run by -- you could manually operate the
6 valves. Some of them got air.

7 Q Okay. It's okay if you don't know. Just tell me.
8 I know it's a long time ago.

9 Do you recall, by chance, how many of them were
10 manual versus how many of the Fisher valves were air?

11 A No.

12 Q 318. Did you ever review a Fisher manual or
13 handbook of any sort?

14 A No, sir.

15 Q Okay. Have you ever met anyone, a representative,
16 from Fisher?

17 A No, sir.

18 Q Okay. That's all I have. Thank you.

19 325.

20 Okay. And, generally speaking, let's talk about
21 Duke Power sort of overall. I think they had a safety
22 department in every plant, correct?

23 A Yes.

24 Q Okay. And did you have regular safety meetings at
25 every plant?

- 1 A Yes.
- 2 Q Okay. Were they weekly? Were they monthly?
- 3 A Every day. Every morning before we went to work.
- 4 Q I've heard people call it a gang box meeting. Is
- 5 that --
- 6 A Yes.
- 7 Q In other words, all the pipefitters would get
- 8 together, and you had a supervisor, foreman, someone
- 9 who was the boss?
- 10 A Yes.
- 11 Q And the boss would give you -- not only give you
- 12 your instructions for the day but give you safety
- 13 briefings?
- 14 A Yes.
- 15 Q And, obviously, a lot of the work you did in the
- 16 early part of your career was at nuclear plants?
- 17 A Yes.
- 18 Q Safety is a little different in a nuclear plant,
- 19 true?
- 20 A Yes, yes.
- 21 Q They're pretty strict, correct?
- 22 A Yes.
- 23 Q In fact, the federal government is involved
- 24 heavily in the construction of a nuclear power plant?
- 25 A Yes.

1 Q Okay. Back then in the '70s, it would have been
2 the Atomic Energy Commission, AEC?

3 A Yes.

4 Q Did you ever have any dealings with AEC personnel?

5 A No.

6 Q Okay. You knew, though, that Duke, in building
7 the plant, had to comply with government regulations,
8 correct?

9 A Yes.

10 Q And the government had their hand in basically
11 every single aspect of the construction and operation
12 of the nuclear power plant, true?

13 A Yes.

14 Q Right down to what kind of valves you were allowed
15 to use?

16 A Yes.

17 Q Okay. You knew that the government would come
18 in and -- could come in and inspect your work?

19 A Yes.

20 Q You knew that the materials that were used in the
21 construction of the plant had to be approved by the
22 federal government before you could start a nuclear
23 reaction and run a power plant?

24 A Yes.

25 Q Okay. And that if any -- if Duke wanted to change

1 anything, they had to get government approval, correct?

2 A Yes.

3 Q Okay. Now, and I don't know if I -- if this has
4 been asked, and if it has, I apologize, Mr. Taylor. In
5 terms of the construction, let's take Ocone for
6 instance, for example, was Duke acting as its own
7 construction contractor?

8 A Yes.

9 Q And I know they had a subsidiary company called
10 Mill Power Supply, and I think we have seen that on
11 some of the documents that your lawyer showed you
12 yesterday.

13 A Yes.

14 Q So in terms of the actual construction of the
15 plant, Duke was responsible for the construction?

16 A Yes.

17 Q Okay. And you were a Duke employee?

18 A Yes.

19 Q Okay. You had testified yesterday about seeing
20 insulation. I think you said you recognized the name
21 Kaylo?

22 A Yes.

23 Q This has been marked as Exhibit 20.

24 Sir, you have been handed what's been marked as
25 Exhibit 20. Did you ever see a label like this one on

1 boxes of Kaylo insulation without -- at any time while
2 you worked for Duke?

3 A No, sir.

4 Q Okay. If this label, which says, "Caution,
5 product contains asbestos fiber. Inhalation of dust in
6 excessive quantities over long periods of time may be
7 harmful. Avoid breathing dust. If adequate
8 ventilation is not possible, wear respirators approved
9 by the U.S. Bureau of Mines for
10 pneumoconiosis-producing dust," if you had seen that
11 label, would you have --

12 A I would have put on a respirator.

13 Q You would have asked Duke for one, correct?

14 A Yes, sir.

15 Q Okay. You didn't see this on the boxes. Did
16 anybody who worked for Duke ever tell you this
17 information, say, "Hey, look, did you see this on the
18 box of Kaylo"?

19 A No.

20 Q Okay. Is that something you feel Duke should have
21 told you?

22 A Yes.

23 Q Okay. I mean, if Duke is bringing these boxes --
24 and, obviously, the Duke employees, the insulating crew
25 for Duke, they saw this box, correct?

1 A Yes.

2 Q Mr. Taylor, I'm going to hand you what's been
3 marked as Exhibit 21. I believe you had indicated
4 yesterday that you recalled Johns Manville making
5 insulation that was used at Duke Power; is that
6 correct?

7 A Yes.

8 Q Okay. Did you ever see a caution label like the
9 one on Exhibit 21 during your time at Duke Power?

10 A No.

11 Q Okay. And you said you knew that OSHA came out in
12 the 1970s?

13 A Yes.

14 Q Did you know that one of the very first substances
15 that was regulated by the federal government was
16 asbestos in the workplace?

17 A Did I know it?

18 Q Yes, sir.

19 A No.

20 Q Obviously, if Duke were scheduling these safety
21 meetings, it was Duke's responsibility to make sure you
22 attended, correct?

23 A Yes.

24 Q Obviously, if the federal government is requiring
25 employers to take precautions regarding asbestos in the

1 workplace before you even started at Duke, would you
2 have expected Duke to follow these regulations?

3 A Yes.

4 Q And did you know that these regulations required
5 employers to use engineering methods including
6 enclosure, vacuum sweeping, exhaust, and ventilation to
7 control asbestos dust? You would expect Duke to follow
8 that, correct?

9 A Yes.

10 Q And if these procedures are not sufficient, if the
11 employer is supposed to provide respiratory protective
12 devices for use by employees, you would have expected
13 Duke to follow that too, correct?

14 A Yes.

15 Q And if you look at the left-hand column there, it
16 says part 1910, Occupational Safety and Health
17 Standards, Standard for Exposure to Asbestos Dust. Do
18 you see that?

19 A Yes.

20 Q Okay. If you look on the third page of the
21 document, it goes through some methods of compliance
22 with the OSHA regulations including engineering
23 controls. Do you see that in the middle column there
24 toward the top?

25 A Yes.

1 Q Okay. When you started on at Duke in 1972, were
2 you issued a respirator approved by the Bureau of Mines
3 or the federal government?

4 A No.

5 Q If you go to the next page, sir, in the left-hand
6 column, it talks about special clothing. Do you see
7 that?

8 A Yes.

9 Q Were you issued special clothing for working
10 around asbestos in 1972?

11 A What's that now?

12 Q Were you issued any special clothing for working
13 around asbestos in 1972?

14 A No.

15 Q Were you given change rooms when you came into
16 work and left work when you started in '72?

17 A No.

18 Q Were you given clothes lockers in '72?

19 A No.

20 Q Did they have a laundry service for your work
21 clothes when you started on in '72?

22 A No.

23 Q If you look in the middle column and on to the
24 right, it talks about caution signs and labels. Do you
25 see that?

1 A Yes.

2 Q It says, "Caution signs shall be provided and
3 displayed at each location where airborne
4 concentrations of asbestos fibers may be in excess of
5 the exposure limits. Signs shall be posted at such a
6 distance from such a location so that an employee may
7 read the signs and take precautions, take necessary
8 protective steps for entering the area marked by the
9 signs." And then it goes on and tells you what the
10 signs are supposed to say. It's in the right-hand
11 column. Do you see that?

12 A Yes, sir.

13 Q It says "asbestos dust hazard."

14 A Yes.

15 Q It says, "Avoid breathing dust and wear assigned
16 protective equipment." Do you see that?

17 A Yes.

18 Q It says, "Do not remain in area unless your work
19 requires it." Do you see?

20 A Yes.

21 Q It says, "Breathing asbestos dust may be hazardous
22 to your health." Do you see that?

23 A Yes.

24 Q Were those signs that you saw in 1978 when you
25 went to the first outage at Ocone?

1 A I never seen those signs.

2 Q You told me they had signs up.

3 A They probably had the signs, but I'm not saying
4 that -- I didn't pay that detailed attention to them,
5 to the signs.

6 MR. REID: Your Honor, I think we're at 359, Line
7 3.

8 Am I correct on that, Yancey?

9 THE COURT: 359, Line 3?

10 MR. McLEOD: Yes, ma'am.

11 THE COURT: Do you think we're at a breaking
12 point?

13 MR. McLEOD: That would be wonderful.

14 THE COURT: I couldn't agree more. I'm glad you
15 said that. I'm going to leave mine right here.

16 Ladies and gentlemen of the jury, we're going to
17 break today. Let's try to be back for a start at 9:30.
18 Kind of get there about 9:15 or so, then we'll begin
19 commencing again at 9:30, and we'll, of course, begin
20 with the completion of the testimony of Mr. Taylor and
21 then other portions of the plaintiffs' case.

22 I just cannot thank ya'll enough. I've been in
23 this business for almost 50 years, 49 years as a lawyer
24 and as a judge. And I've tried a lot of cases in front
25 of a jury as a lawyer, and I certainly tried a lot of

1 them as a judge. I don't believe I've ever seen a jury
2 that is this attentive about what is a very technical
3 and sometimes tedious case. And I just cannot thank
4 you enough on behalf of myself and the court system as
5 well as these fine lawyers and the parties in this
6 case. Thank you so much. God bless and have a good
7 evening.

8 (WHEREUPON, the jury exited open court at
9 5:02 p.m.)

10 THE COURT: All right, ladies and gentlemen. Now,
11 let's talk a little bit about anything, any dilemmas
12 before we start, or can we start at a civilized hour?

13 (WHEREUPON, an off-the-record discussion was
14 held.)

15 (WHEREUPON, proceedings adjourned at 5:03 p.m.)
16
17
18
19
20
21
22
23
24
25

