

FILE NAME: Garlock (GAR)

DATE: 1986 Dec 4

DOC#: GAR042

DOCUMENT DESCRIPTION: Legal - Deposition of GE Houghton with BC Notes

Elwood Houghton

12. plant engr. in ash. textiles worked for J-M in Newville
1927-1939
13. they used respirators in dustier areas
- 25 describes use of local exhaust ventel. on carding equip.
- 27 K + M poorer dust control than J-M; R-M $\approx$ J-M
- 33 Went to Garlock in Palmyra NY 1939 - mfg. gaskets, plys, cloth
- 35 Garlock had started in the 1880's
- 36 used crocidolite in some gaskets for chem. resistance
- 39 dust control better at Garlock than J-M
- 40 Garlock used respirators for maintenance work, handling A fiber
- 48 Was unaware of 1940's gov't inspection recommendations re dust contr
- 64 GtH operated dust sampling & performed analyses.
- 78-79 (not sure if he ever saw warning labels) worked there until 1970
and consulted for Garlock until 1979. Unaware of any brochure
warnings to employees
- 79 Garlock has plants in France, Philippines & Spain
- 82-83 Attended 1956 ATI mtg. where K & Smith discussed Heuper writings/C
- 89 Generally got ATI minutes 1 mo. after mtgs. & read minutes
Can't recall health discussions in 1956 or when he first
heard of A $\rightarrow$ Ca
- 90 recalls 1957 W. comp. claim by Grace Bayford for asbestosis
- 92 attended ATI mtgs. 1956-1970 & rarely missed one
- 100 rubber "carrier" material in gaskets would deteriorate before the A
- 105 Glasser refers to 1977 decision to put warnings on gaskets
by Garlock's "product liability committee"

CIRCUIT COURT OF THE CITY OF CHESAPEAKE, VIRGINIA

WILLIAM STACEY OVERBY,

Plaintiff,

versus

Docket No.
20555-M

GARLOCK INC. -

Defendant.

Deposition of GEORGE ELWOOD HOUGHTON, held at 516 West
Main Street, Palmyra, New York on December 4, 1986, commen-
cing at 10:00 a.m.

APPEARANCES: GLASSER and GLASSER, ESQS.
Suite 400
125 St. Paul Boulevard
Norfolk, Virginia 23510
Appearing on behalf of the Plaintiff
By: RICHARD S. GLASSER, ESQ., of Counsel

DUANE and SHANNON, ESQS.
The Joynes House
209 West Franklin Street
Richmond, Virginia 23220
Appearing on behalf of the Defendant
By: JAMES C. SHANNON, ESQ., of Counsel

ALSO PRESENT: BERNARD L. LEVINTHAL, ESQ.
HELEN ZORNOW

REPORTED BY: CAROL P. RAES
Midtown Reporting Service
1100 Times Square Building
Rochester, New York 14614
(716) 325-2130

DEPOSITION
EXHIBIT

CIRCUIT COURT OF THE CITY OF CHESAPEAKE, VIRGINIA

WILLIAM STACEY OVERBY,

Plaintiff,

versus

**Docket No.
20555-M**

GARLOCK INC.

Defendant.

**Deposition of GEORGE ELWOOD HOUGHTON, held at 516 West
Main Street, Palmyra, New York on December 4, 1966, commen-
cing at 10:00 a.m.**

APPEARANCES: GLASSER and GLASSER, ESQS.
Suite 400
125 St. Paul Boulevard
Norfolk, Virginia 23510
Appearing on behalf of the Plaintiff
By: RICHARD S. GLASSER, ESQ., of Counsel

DUANE and SHANNON, ESQS.
The Joynes House
209 West Franklin Street
Richmond, Virginia 23220
Appearing on behalf of the Defendant
By: JAMES C. SHANNON, ESQ., of Counsel

ALSO PRESENT: BERNARD L. LEVINTHAL, ESQ.
HELEN ZORNOW

REPORTED BY: CAROL P. RAES
Midtown Reporting Service
1100 Times Square Building
Rochester, New York 14614
(716) 325-2130

INDEX TO WITNESSES

GEORGE ELWOOD HOUGHTON

Examination by Mr. Glasser	3 - 106
Examination by Mr. Shannon	106 - 107

INDEX TO EXHIBITS

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>MARKED</u>
1	Four-page document; first page reading "Mr. Bristol" and "Important"	49
2	Asbestos Textile Institute minutes of June 19, 1946 meeting	59
3	March 13, 1946 Dust Control Meeting minutes	64
4	June 13, 1946 Dust Control Committee minutes	67
5	85 pages of documents; first document being "Report Preliminary Dust Investigation For Asbestos Textile Institute, June 1947"	75
6	Minutes of March 8, 1956 meeting of Asbestos Textile Institute	81
7	Minutes of March 7, 1956 meeting of Asbestos Textile Institute	81

1 MR. SHANNON:

2 There is one stipulation. I'll read
3 it from a letter of September 5 to me from
4 Robert Hatton. Paragraph 4 of that letter
5 states, "The deposition of George Elwood
6 Houghton will proceed at a time and place
7 convenient to Garlock and the witness, within
8 three weeks of this date and, of course, we
9 have by agreement abrogated that particular
10 date requirement. ~~And upon completion of~~
11 ~~such deposition, it shall be placed under~~
12 ~~seal and not be used under evidence except in~~
13 ~~cases in which the law firms of Glasser and~~
14 ~~Glasser or Patten, Worham and Watkins are~~
15 ~~counsel of record. This deposition will be~~
16 ~~noticed in a case in which Garlock is the~~
17 ~~only defendant and no defense counsel shall~~
18 ~~attend the deposition other than Garlock's~~
19 ~~counsel. However, in the event that such~~
20 ~~deposition reveals information which would be~~
21 ~~relevant and material to the liability of~~
22 ~~other defendants in asbestos products~~
23 ~~liability litigation, then in that event,~~
Garlock agrees that the deposition may be

renoticed to permit defense counsel an
opportunity to participate in the deposition
and have it in a form that would be
admissible in litigation in which other
defendants were involved."

As a follow up to that letter of
September 8, I responded to Bobby Hatton on
September 18, and the following portion of my
letter of September 18 is also pertinent to
the taking of this deposition. "Also, I
understand that your agreement not to use
this deposition other than in a case in which
you are counsel of record refers to your
involvement as counsel who originated a
particular plaintiff's case. We do not
understand," we, being Garlock, "that we have
agreed that you are eligible to be associated
in other plaintiffs' lawyers' cases around
the country and use your status as counsel of
record to offer this deposition against
Garlock therein." So under those terms and
conditions we're here today to proceed with
Mr. Houghton's deposition.

1 MR. GLASSER:

2 If I may make a preliminary comment,
3 as Jim Shannon is well aware, I am associated
4 with Bobby Hatton, and I am aware of both
5 Bobby's letter of September 5, 1986 and Jim
6 Shannon's response of September 18, 1986,
7 both of which you have accurately reported to
8 the record. I do want to make sure that my
9 feelings are known that the letter of
10 September 5, 1986 confirmed a settlement that
11 was made in ten cases in which Garlock was a
12 defendant. These ten cases were either
13 handled by my office or by Bobby Hatton's
14 office or by our offices jointly, and they
15 were pending either in the state of Virginia
16 or in the state of Texas. The provision
17 concerning Mr. Houghton's deposition and that
18 it be placed under seal and other provisions
19 calling for basically a temporary moratorium
20 in discovery were requested by Garlock, were
21 a part and parcel of the settlement
22 procedure, and as Jim has consented to so
23 that we could in fact resolve the differences
for the ten plaintiffs that we were

1 representing. They were consented to by the
2 plaintiffs; myself, included. I make this
3 statement because I'm not in favor of sealed
4 depositions. It was not my desire that it be
5 placed under seal, but it was, as Jim
6 reported, a part of the discussions that
7 ended with the resolution of ten cases. With
8 that comment, I'm prepared to proceed and I
9 would ask you please to swear the witness.

10 MR. SHANNON: We're reserving all objections except
11 as to the form of the question.

12 MR. GLASSER: That's correct.

13
14 G E O R G E E L W O O D H O U G H T O N , called herein
15 as a witness, having first been duly sworn, was examined
16 and testified as follows:

17
18 EXAMINATION BY MR. GLASSER:

19 Q Before I ask you any formal questions, I just wanted to
20 let you hear my voice a little bit as I will be talking
21 to you once the formal questioning starts to make sure
22 that you can hear me and understand me. Do you
23 understand?

- 1 A Yes.
- 2 Q I notice that you're wearing two --
- 3 A I have it in both ears, yes.
- 4 Q -- two hearing aides, and you have told me before the
5 deposition started you might need questions repeated,
6 so if at any time you don't understand my question or
7 I'm not clear, please don't hesitate to ask me to
8 repeat or to rephrase.
- 9 A I won't.
- 10 Q And if at any time you want to take a break or a rest
11 for whatever reason, if you will tell us we will
12 promptly do so.
- 13 A Yes.
- 14 Q And we have here with us today at everyone's request
15 Helen Zornow who is a nurse and she'll also be looking
16 out for you.
- 17 THE WITNESS: You can see my eyes, all right?
- 18 MRS. ZORNOW: Yes.
- 19 Q You're comfortable and you're ready to begin?
- 20 A I'm relaxed.
- 21 Q Thank you, sir. Just so the record will be clear, Mr.
22 Houghton, would you state your full name?
- 23 A My full is name is George Elwood, E-l-w-o-o-d,

1 Houghton, H-o-u-g-h-t-o-n. I go by my second name,
2 Elwood.

3 Q And today is December 4th, 1986?

4 A Correct.

5 Q And we are at your home at ~~14822 Main Street~~ Main Street in
6 Palmyra, New York.

7 A Yes, 14822.

8 Q Mr. Houghton, have you given any past sworn testimony
9 in any asbestos-related matter?

10 A Yes, we have had the investigations.

11 Q And what type of investigations were they?

12 A I'd say similar to what you're going to carry out.

13 Q And can you tell me about how many times you have had
14 testimony like this that you have given?

15 A I'd say similar. I've been asked questions.

16 Q Have they been with the presence of a court reporter?

17 A I don't recall any of that being done.

18 Q Were they involving only attorneys from Garlock or did
19 they also involve attorneys like myself who --

20 A It would be both.

21 MR. GLASSER: Off the record.

22 (Whereupon a discussion was held off the record.)

23 Q Have you ever been called upon to give any statements

1 to any legislative body or to any trade association
2 concerning asbestos?

3 A I was the representative from Garlock to Asbestos
4 Textile Institute.

5 Q I will discuss that with you later on in our
6 discussion. Have you ever written anything concerning
7 asbestos?

8 A My major writings have been regarding the asbestos
9 spinning operation.

10 Q And do you have copies of what you wrote concerning the
11 asbestos spinning operation?

12 A I might possibly have some, but they would be buried in
13 file papers. I'd have to search. I don't know.

14 Q Can you tell me during what time frame you did writings
15 concerning asbestos spinning?

16 A Well, that was while I was active with Asbestos
17 Textile Institute. I think it was probably about
18 1962 to 1970. Any report I might have made would
19 have been probably about 1968, in that neighborhood.

20 Q I'm going to drop back, Mr. Houghton, and ask you if
21 you will review for me your educational background.

22 A I graduated from Westtown's School in Pennsylvania in
23 1924. That was a college preparatory school. I

1 attended Philadelphia Textile -- Philadelphia Textile--
2 no, it was called -- Yes, Philadelphia Textile School
3 was the name of it. It was located at Broad and Pine
4 in Philadelphia at that time. It has been changed from
5 Philadelphia Textile to Philadelphia College of
6 Textiles and Science now.

7 Q How long did you attend there?

8 A That was a three-year course.

9 Q Did you learn anything during that schooling period
10 about the use of asbestos as a textile?

11 A No.

12 Q Did you graduate from the Philadelphia Textile School
13 approximately 1927?

14 A 1927.

15 Q And following your graduation, what was the first type
16 of employment that you had?

17 A I moved from school right to Johns-Manville Corporation
18 in ~~Manville~~ Manville, New Jersey.

19 Q What was the nature of your employment at
20 Johns-Manville or field?

21 A I was in the asbestos textile manufacturing which
22 involved fiber preparation, spinning and twisting and
23 weaving asbestos cloths and yarns.

1 Q That was your specific responsibility?

2 A Yes, I was there for 12 years, and so I moved from
3 learning the trade and then up to you might say an
4 engineer of various operations. I had exposure to all
5 of the operations from the fiber preparation where
6 fibers were sold as such and spinning into asbestos
7 yarn, carding and twisting, weaving. I became
8 acquainted with braiding, which was in the neighboring
9 department, so I had a pretty broad education; also in
10 safety clothing manufacturing.

11 Q Primarily, if I understand you correctly, your
12 experience at Johns-Manville was with the manufacturing
13 of asbestos cloth and asbestos yarns?

14 A That's right.

15 Q How much occasion did you have to see and be around the
16 machines where the fibers were prepared, spun and
17 twisted in the manufacturing process?

18 A I'd say complete knowledge of the mechanical
19 processes. I was sent to set up textile and instruct
20 people on the handling of the equipment.

21 Q And did your job responsibility relate to the equipment
22 itself and how it should be set up from an engineering
23 standpoint?

1 A Yes.

2 Q Did you also have a role concerning how the dust would
3 be ventilated or controlled? I'm speaking of asbestos
4 dust that was generated during the various processes of
5 the manufacturing that you've described.

6 A Yes.

7 Q What was available in the 1927-1939 time frame to
8 enable you to help control asbestos dust?

9 A More or less your own ingenuity. I don't think we had
10 such in actual magnifications or dust-studying
11 equipment.

12 Q Did they have exhaust fans and ventilation?

13 A Yes.

14 Q Did they have hoods that could fit over dusty areas to
15 gather and remove the dust?

16 A That was particularly true in fiber preparation and
17 carding. Some hooding was applied to looms.

18 Q Did they also understand that you could separate or
19 isolate a dusty process so that the dust that was being
20 created would not go all over the work environment?

21 MR. SHANNON: I object to the leading of that
22 question.

23 A The hooding was designed for that, yes.

1 Q You were aware that in the 1927 to 1939 time frame
2 there were also respirators that were available?

3 MR. SHANNON: I object to the leading.

4 A We used ~~respirators for all the work in the~~
5 ~~dustier areas like cotton preparation and carding,~~
6 ~~handling of stock, and all that.~~

7 Q How were respirators used by the men who handled the
8 stock and were in the various manufacturing processes?

9 MR. SHANNON: I object to that. It mischaracterizes
10 his former testimony.

11 A It would be used because it was recognized as a dusty
12 area. There were limits set by the federal
13 government at that time where dust should be not
14 exceeding 5 microns per cubic foot in the type of
15 studies that were done at that time. We had samples
16 sent away, we had some outside insurance companies come
17 in and make analyses, and our efforts were to try and
18 live under the federal requirements.

19 Q You mentioned 5 microns per cubic foot. Could that
20 have been 5 million particles per cubic foot?

21 A A micron, I think, is a ten thousandth of a
22 millimeter. I think. I'm not positive on that, but a
23 micron was a microscopic measurement.

1 Q I understand what a micron is. My question, Mr.
2 Houghton, is that the standard that you described?
3 Think back and say would you agree that that standard
4 was 5 million particles of total dust in a cubic foot?

5 A No, it would be 5 microns in an examination microscopic
6 examination area. I think the sampling was taken
7 against a glass plate, and that area was magnified, and
8 the particles are counted in a certain area on that
9 magnified sample.

10 Q Let me try to clarify. There was a standard that you
11 tried to stay within, and in determining size, there
12 were microscopes available in order to allow the dust
13 that had been gathered in testing to be counted.

14 MR. SHANNON: I object as the leading. He hasn't
15 testified to that.

16 A This measurement device I'm mentioning was not
17 available to me until I was at Garlock.

18 Q I understand, but at Johns-Manville, they were able to
19 take dust counts.

20 A The insurance company did that.

21 Q And when they took dust counts, they will then count
22 it under a microscope, is that correct?

23 A That's the way I understand they did it.

1 Q And they had a standard that they tried to stay within
2 when they were dealing with asbestos dust?

3 A Yes.

4 Q Why was there a standard for asbestos dust in the 1927
5 to 1939 time frame?

6 A That was in the hands of the insurance company and it
7 was not discussed with us.

8 Q Do you know whether the insurance company that handled
9 and studied Johns-Manville was the Metropolitan Life
10 Insurance Company?

11 A I can't answer that accurately. It may have been, but
12 it was not my knowledge.

13 Q Did you ever have occasion to meet Dr. Anthony Lanza?

14 A I don't remember that name.

15 Q You do recall, however, that the insurance companies
16 came into Manville and made studies and test counts
17 concerning the asbestos dust operation?

18 A I think my answer would be I know they have come in.

19 Q Do you know, Mr. Houghton, whether the results of
20 those studies were ever published and made available
21 in the literature?

22 A Not that I could -- not that I was exposed to no.
Folks up the ladder may have heard it, but I was down

*of
Foundation
Insurance*

SUST

1 low.

2 Q Your work was primarily ~~at the~~ level where the
3 manufacturing machines were being ~~designed~~, developed
4 and used?

5 A I was associated with the machines producing the
6 material, but I was ~~not connected with the~~ designing of
7 ~~cards or fiber preparations~~. I did do some design work
8 on looms.

9 Q Did your design work on the looms take into
10 consideration how ~~to control the~~ dust that could be cut
11 out by the asbestos fibers that were being spun in
12 looms?

13 A Any equipment designed would be to act like a vacuum
14 cleaner but not get in the way of the manufacturing
15 operation of the equipment.

16 Q And by vacuum cleaner, they had vacuum cleaners in the
17 1927-1939 period, is that correct?

18 A Yes, they had fans and hoods connected with the vacuum,
19 yes.

20 Q And the vacuum cleaner effect was to remove the excess
21 dust without interfering with the manufacturing
22 process?

23 A Yes. We realized that to pick up dust, you had to

1 approach as closely as possible to the movements that
2 were taking place to be effective.

3 Q And you wanted to remove the asbestos dust from the
4 work environment to avoid any hazards associated with
5 breathing too much asbestos dust?

6 MR. SHANNON: I object to the leading questions,
7 Richard. He hasn't said anything about
8 asbestos dust. He's talked about dust. If
9 you're going to ask why, ask him. Don't tell
10 him.

11 MR. GLASSER: I want to make it very clear that I
12 have a right to lead this witness, and that I
13 don't think an objection as to leading is
14 appropriate, and I feel that my questions are
15 proper as structured. I understand your
16 objection, and you may object as to form if
17 you feel it's appropriate, and obviously, I
18 would want to have an chance to rephrase it,
19 but I do feel that leading is permissible
20 here.

21 MR. SHANNON: I understand that under the conditions
22 we're working under today. I feel you might
23 be advised to be very circumspect in your

1 leading questions considering Mr. Houghton's
2 age and considering his hearing difficulties.

3 MR. GLASSER: I'm trying but I feel my questions are
4 proper in terms that he is a long-term
5 Garlock employee.

6 Q Don't you concern yourself with the lawyers talking.
7 We're talking to the judge who didn't want to come up
8 and brave the snow with us.
9 (Whereupon the reporter read back the pending
10 question.)

11 Q Do you remember my question that I asked before I
12 talked with Jim Shannon?

13 A I didn't have a machine like that, I know.

14 Q Let me repeat my question as best I can. ~~We were~~
15 ~~talking about the vacuum effect that was used on the~~
16 ~~machines. The looms and the spinners were making~~
17 ~~asbestos cloth, as I correct.~~

18 A ~~The looms were making asbestos cloth.~~

19 Q ~~And asbestos cloth was approximately 80 to 90 percent or~~
20 ~~more asbestos fiber by weight, as I correct.~~

21 A Yes, that's correct.

22 Q ~~And even higher running 80 percent or 90 percent~~
23 ~~asbestos percentage by weight.~~

1 A ~~Sometimes~~ 95 percent.

2 Q And the concern about the vacuum effect was to remove
3 as much of the asbestos dust as could be done so as to
4 reduce any hazard to the workers who would be breathing
5 the dust?

6 A Yes.

7 Q And that's because it was known that the breathing of
8 asbestos dust could be harmful to those who breathed
9 it?

10 MR. SHANNON: I object to that. I think it was
11 known that the breathing of any dust could be
12 harmful to those breathing it, as we know
13 that people who worked in cotton mills today
14 have brown lung and other diseases. I object
15 to your question as it implies special
16 knowledge that this man has about the hazard
17 of asbestos dust, and no such knowledge has
18 been established.

19 Q Mr. Shannon, wasn't it known by the 1930's that
20 it was important to limit the amount of asbestos dust
21 that a person breathed?

22 A You're looking at history, ~~and people have been~~
23 learning. We look back and we can see some things we

1 have ~~been~~ learning over the years; in other words,
2 we've ~~made~~ some sort of progress. We have not been
3 aware all that time of everything that we now know.

4 Q I understand, but they ~~known~~ in the 1930's when you were
5 at Johns-Manville that it was important ~~to~~ ~~try~~ to
6 control and limit the amount of ~~asbestos~~ ~~dust~~ that the
7 manufacturing process was ~~generating~~ ~~in~~ ~~the~~

8 A ~~Yes~~ ~~or~~

9 Q And part of your job as an engineer working in the
10 asbestos textile manufacturing was to help with the
11 design to limit the dust.

12 MR. LEVINTHAL: I object to that. It mischaracterizes
13 his prior testimony as to what involvement he
14 had with it.

15 MR. GLASSER: Jim and I are nodding at each other.
16 If we can have one, it will make the sides
17 fair and conform to our court rules.

18 MR. SHANNON: That's right. I will have to make
19 the objections. I will make that my
20 objection and we'll proceed.

21 (Whereupon the reporter read back the pending
22 question.)

23 Q Is that correct?

1 A That's one of the duties, yes.

2 Q What progress can you describe to me that was made in
3 limiting dust while you were at Johns-Manville? Did
4 you play any role in helping to reduce the dust of
5 the workers?

6 A I get confused with knowing that I did more actively
7 work here, but at Johns-Manville, my job was not
8 designing particularly for dust control.

9 Q And you say when you became more active "here," you
10 mean once you became an employee at Garlock?

11 A I was a superintendent here.

12 Q And "here" is the Garlock plant at Palmyra, New York?

13 A Yes.

14 Q While you were at Manville, was there any discussion
15 that you can recall concerning the hazard that could
16 occur to a person who breathed too much asbestos?

17 A To my position there, I think I did not get in on those
18 engineering discussions.

19 Q Can you tell me how you learned that there was a
20 standard that you should strive to stay within when
21 dealing with the quality of asbestos dust?

22 A I can't give you a good answer when I learned that it
23 would be best to keep it at a certain level. I think

1 probably casual discussions would be the best I could
2 say.

3 Q While you were at Manville?

4 A Johns-Manville.

5 Q While you were at Manville, did you have any occasion
6 to attend any meetings or educational seminars
7 concerning your engineering expertise relative to
8 asbestos textile manufacturing?

9 A No seminars. Practical experience on the job was
10 probably the major -- where I picked up information.

11 Q Who were, in your opinion, the most knowledgeable
12 people at Manville concerning the need to control dust
13 while you were there?

14 A I think Mr. Cannon, Phil Cannon was probably the
15 closest. I don't think you'd have much information
16 from him now.

17 Q He's deceased?

18 A Yes.

19 Q Did you know Clifford Sheckler?

20 A I think I know the name, but I don't think I associated
21 with him any.

22 Q Did they have a medical department at the Manville
23 plant?

1 A Later they worked into a need for a nurse, but when I
2 was there, they had a doctor, but most of the medical
3 treatments were made in the office of the factory;
4 very limited medical service at the beginning.

5 Q Were you aware as to whether there had been any
6 Workmen's Compensation suits filed against Manville in
7 the 1930's for asbestos disease?

8 A I was not aware of suits at that time.

9 Q You're aware now that they had suits in the 1930's?

10 A Yes.

11 Q Did you have occasion while you were working at
12 Manville to travel around to any other Manville plant
13 other than the textile manufacturing facility at
14 Manville, New Jersey?

15 A I only picked up equipment at the Waukegan factory
16 when -- This is 1933. I was asked to move equipment
17 from both Manville and Waukegan to the asbestos factory
18 at Asbestos, Quebec. Factory at Asbestos, Quebec was a
19 plant with a number of departments making similar
20 products to those at Manville.

21 Q They also had some mining facilities that Manville
22 owned in Asbestos?

23 A That was the major. What was going on there was there

1 mining, but they had set up a production plant there,
2 too, for Canadian product and I was sent up there when
3 they wanted to set up a textile plant, and so I went up
4 there with equipment from Manville and Waukegan, but I
5 saw very little of Waukegan's production. I was just
6 taking some machinery away.

7 Q Did you help in setting up the layout for the asbestos
8 textile manufacturing facility that was being set up in
9 Asbestos, Quebec?

10 A Yes.

11 Q And you were aware at that time it was important how to
12 lay it out and also to lay it out so that you could
13 control the dust that would be generated?

14 A Yes. We -- the cards already had hooding on them.

15 Q The carding machines?

16 A Yes, the carding machines had hooding, so I had them
17 lay out a dust recovery department with fans exhausting
18 the hoods of the cards and blowing into a recovery
19 system so that you weren't blowing the dust over the
20 countryside.

21 Q And in that fashion, you were able to remove much of
22 the asbestos dust from the work environment and then
23 capture it so it would not, like you say, be blown

1 outside the plant to the neighborhood?

2 A Yes, it was filtered.

3 Q How advanced was the thinking at Manville concerning
4 the need to control asbestos dust in the 1930's?

5 A They had made good advances. The old system was fans
6 on top of the building, not down where the dust are
7 generated. The dust was in the room. Then when I got
8 there, they had just installed 48 sets of cards with
9 dust recovery systems blowing into a filter house on
10 the roof.

11 Q And the dust recovery system on the cards was close to
12 the source where the dust was being generated?

13 A Yes, completely covering the hooding and the machine;
14 also drawing out from underneath the card, too.

15 Q Now, while you were at Manville, did you have occasion
16 to see any of their asbestos product manufacturing
17 facilities other than textiles, like the pipe covering?

18 A Yes.

19 Q And they also had a pipe covering facility right at
20 Manville?

21 A Yes.

22 Q And were they also using engineering devices for dust
23 control in the other operations, other than textile

1 manufacturing?

2 A There was some hooding where dry asbestos was handled
3 to feed into mixers. There was hoods over that area.
4 Mostly, though, the recovery systems were connected
5 with the cards and the looms.

6 Q Did you have occasion during your time at Manville ever
7 to see the manufacturing processes at another
8 manufacturer's plant?

9 A Yes.

10 Q Can you tell me whose plants you had occasion to visit?

11 A Keasbey & Mattison. That was I think at north -- or it
12 was in Pennsylvania, yes.

13 Q Was that Ambler, Pennsylvania?

14 A Yes. And it became -- They were purchased by American
15 Asbestos, so Keasbey & Mattison disappeared and
16 American Asbestos took it over.

17 Q Do you know whether Nicolet also purchased some of
18 Keasbey & Mattison?

19 A I never went to any Nicolet plant in Pennsylvania. I
20 went by the Nicolet mines in Canada, but I didn't visit
21 it.

22 Q You did not go into the Nicolet mines?

23 A No.

1 Q When you went to the Keasbey & Mattison textile plant,
2 how up to date as compared to Manville --

3 A The date?

4 Q No, how up to date, how advanced were they as compared
5 to Manville in their efforts to control asbestos dust?

6 A Keasbey & Mattison were not as advanced as
7 Johns-Manville.

8 Q What was the purpose of your going to Keasbey &
9 Mattison?

10 A They wanted me to take a job there as supervisor. I
11 didn't go.

12 Q Did you have occasion to go to any other asbestos
13 companies other than Keasbey & Mattison while you were
14 at Manville?

15 A There's one other I visited, may have been a Raybestos
16 division. I think it's a Raybestos factory but it was
17 owned -- it was a different name. It was in about
18 central Pennsylvania.

19 Q It was an asbestos textile facility?

20 A Yes.

21 Q How advanced, from what you could observe, was the
22 Raybestos-Manhattan facility?

23 A I think they were somewhat similar to Johns-Manville.

1 Q By similar, you mean that they had made some of the
2 same advances to control dust?

3 A Hooding and so forth, yes.

4 Q Did you ever have contact while you were at Manville
5 with anyone from Raybestos concerning asbestos or
6 engineering dust control measures?

7 A No. It was more observation ~~of the unit~~. That's all.
8 Not dust control or problems.

9 Q Why did you go to the ~~Raybestos-Manhattan~~ facility?
10 Was that in the 1930's?

11 A It was in the 30's. I'm hazy on that. I was sent
12 there by Johns-Manville for some purpose. It may have
13 been for picking up cylinders or equipment. They may
14 have had something for sale, and so other than that, I
15 can't give you an answer.

16 Q Other than Keasbey & Mattison and Raybestos, do you
17 recall seeing any other asbestos manufacturer's
18 operation?

19 A I've seen several after being here, not at Manville.

20 Q Still at Johns-Manville, another question, did you ever
21 have a chance to see the gasket manufacturing operation
22 at the Manville facility?

23 A Yes.

1 Q Can you tell us what you observed concerning the gasket
2 manufacturing operation at Manville?

3 A Cloth from asbestos textile was shipped to them. There
4 were more than one operation. One was dipping, passing
5 the cloth through a gasoline rubber shamoy and then
6 passing it up through a drying towel to remove the
7 gasoline fumes, so fully impregnated asbestos-cloth was
8 made as one of the products that's particularly used in
9 frictioning where two pieces of cloth are pressed
10 together in making a gasket. Then the other method was
11 frictioning and skinning by colander, and a large
12 percentage of the cloth was used that way making
13 slabs. These slabs were used in cutting packing rings
14 for gaskets. They were a punch press type of
15 operation. More cloth was used in either impregnating
16 or in frictioning than used as dry cloth. Dry cloth
17 was used in their clothing manufacturing for safety
18 clothing. They had a plant at Johns-Manville for
19 making gloves and coats and pants for firefighting,
20 working in steel mills, where you were exposed to high
21 temperatures, that they made them.

22

23

(Whereupon a brief recess was taken.)

1 BY MR. GLASSER: (Continued)

2 Q Do you recall the names of any of the people you met at
3 the Raybestos facility?

4 A No. I might remember it if the names were recited to
5 me, but no, I wasn't particularly familiar with those
6 folks.

7 Q Do you remember any names from Keasbey & Mattison?

8 A That was 30 years ago. I'm poor on remembering names.

9 Q I'm going to shift over now, Mr. Houghton, to Garlock,
10 and I want to ask you first how did you come to be
11 employed by Garlock?

12 A In 1938, the superintendent of the textile plant was
13 Harry Elder and he died. I'm not sure why he died but
14 he died in '38, and they were in need of someone to
15 operate the department. They had at least a couple of
16 years of doing the best they could with what they had
17 or Owen Burns was one of the workers and he was in
18 charge when I came here, but Mr. Hubbard, Cecil Hubbard
19 was factory manager. He was later promoted to vice
20 president. George Abbott was president of the company,
21 and I came up here in March of that year and they told
22 me to -- I came in February and they told me to come up
23 in March, so I've been in here, made a good impression

1 on.

2 Q That was February, 1938 or 1939?

3 A It was '39 when I was called in February to examine the
4 place and I came to work in March the 13th.

5 Q How did you know about Garlock or how did Garlock know
6 about you?

7 A ~~There was a fairly good relationship between Garlock~~
8 ~~and Johns-Manville. There was an interchange.~~ There
9 was some people that went from here to work at
10 Johns-Manville and some folks from Johns-Manville had
11 come here, so the companies knew each other. This was
12 in '39, tail end of the depression, and when I told my
13 superintendent, Mr. Cannon, that I had accepted a
14 position here as superintendent, Phil Cannon said to me
15 if there was anyplace other than Garlock, I'd advise
16 you not to go. This was a backside way of a compliment
17 of Garlock, so he didn't stand in my way, but I had
18 already told him I had accepted because I had had a
19 couple of other opportunities to leave and they told me
20 they were glad I stayed at Johns-Manville, so I didn't
21 like -- Usually, when something like that happens, you
22 got a little increase in pay, so I didn't like to keep
23 edging myself up by the saying I got another chance,

1 but anyway, he said if there was anyplace besides
2 Garlock, that I'd advise you not to go.

3 Q You mentioned that some of the people from Manville had
4 come to Garlock and some from Garlock to Manville. Can
5 you help me with any names of people who transferred
6 from one to the other?

7 A I know that there was a Bavis whose brother works here,
8 had gone from here to John Manville. He worked in the
9 packing department, then there was another mechanic
10 that moved down there. His name was Mr. Ob. nuts. He
11 was a very good mechanic. When I'm not thinking, I'll
12 remember it for you.

13 Q If you remember it, you just advise us of the name but
14 we'll keep going in the meantime. Had you ever visited
15 any facility owned by Garlock while you were at
16 Manville?

17 A No, I didn't know of Garlock until I heard that there
18 was an opportunity here. I may have heard the word but
19 I didn't really know much about it, but I never saw
20 Garlock until I came here to visit.

21 Q You started with Garlock in March 1939?

22 A Yes.

23 Q And that was in Palmyra, New York, where your home is?

1 A That's right.

2 Q What type of facility did Garlock have in existence in
3 1939? What did they produce in Palmyra?

4 A Well, they have about a dozen departments. They make
5 gaskets, folded gaskets, make gasket rings, had pan-
6 holed gaskets for boilers and then they made varieties
7 of packings, rings and compressed asbestos sheet
8 gaskets. They sell sheeting, but they also punch out
9 millions of disk rings for valve stems or they make
10 felt packings for ball bearings. They make large
11 variety of molded parts in high temperature molding for
12 vulcanizing rubber. They make rubber sheets for sale.
13 They furnish cloth to others to make safety clothing.
14 They now make Teflon products.

15 Q If we can, going back to the 1939 time when you
16 came, were the gaskets made of asbestos-containing
17 asbestos-containing gaskets?

18 A ~~Yes~~

19 Q The folded gaskets, did they have asbestos?

20 A The folded gaskets were made of asbestos and then
21 folded together to make ~~asbestos~~ products, but
22 most of them were rubberized ~~asbestos~~
23 frictioning, and then they were ~~asbestos~~ into

1 ~~1. Asbestos.~~

2 Q And ~~the~~ compressed asbestos sheets, are they the sheets
3 from which gaskets can be cut to a specific size?

4 A Yes, most of them in single sheet from a 64 on up to
5 maybe as far as an 8, and then they laminate if they
6 want to go thicker than 8.

7 Q And the folded gaskets and the compressed asbestos
8 sheets and the packings, did those contain or do you
9 know the percentage of asbestos by weight in those
10 products, the general range?

11 A Well, most of time used the ~~commercial blend, which is~~
12 the 75 percent, and then there would be a good 80 or 60
13 percent rubber on top of that, so we're down now to
14 maybe 30 percent asbestos in some of these rubberized
15 products.

16 Q And the ones that did not have the rubber, then, would
17 more or less be like the commercial grade of asbestos
18 cloth, roughly about 75 percent asbestos by weight?

19 MR. SHANNON: I object. I don't think that he said
20 there were any that didn't have the rubber
21 that were used for gaskets.

22 A Well, others dipped in maybe Teflon. Again, they're
23 coated. A small percentage might be used in a dry

1 cloth, but mostly they're coated or impregnated.

2 Q Am I correct that Garlock Packing Company had been in
3 business for a good while before you came here in 1939?

4 A Yes, I guess Garlock was probably about 1880 or
5 somewhere around there.

6 Q 1887 sound about right?

7 A That's somewhere around when it started. I think it
8 started with rubberized fabric using somebody's rubber
9 boots for strings for making packing power plant. The
10 fella was using anything he could get. Finally he used
11 this and it worked, so he moved from the power plant
12 over to making rubber slabs like rubber boots, and from
13 there he progressed into using other materials.

14 Q When you came to Palmyra, Mr. Houghton, can you tell me
15 overall about how many people were employed?

16 A Oh, I don't know, maybe less than 200. Maybe around
17 200.

18 Q Approximately how many of those 200 would have been
19 involved in manufacturing items that contained
20 asbestos?

21 A That's kind of a broad figure you're asking. I could
22 say maybe 35 to 38 making the asbestos parts, then the
23 other parts like high-pressure manufacturing and the

1 mill and colander, they all handled the products, maybe
2 another hundred there. You're now reaching out into a
3 range of products, so to give you an exact figure, I
4 couldn't do it.

5 Q The type of asbestos that was used was primarily the
6 chrysotile or the white asbestos?

7 A Mostly, yes.

8 Q And you also had some of the blue asbestos or the
9 crocidolite?

10 A A certain percentage of the crocidolite was used. We
11 didn't do any weaving or spinning of crocidolite. That
12 was purchased maybe from Germany.

13 Q Or Rhodesia?

14 A The Rhodesian would be the source but the spinning was
15 done maybe in Germany.

16 Q The crocidolite, was that ~~used in products other than~~
17 ~~gaskets~~ or was it strictly used in ~~gaskets~~?

18 A I ~~think~~ was used where ~~chemical resistance~~ was a
19 major factor because ~~crocidolite is better~~ against
20 acids than the chrysotile.

21 Q Less corrosive when it comes in contact with --

22 A Yes, it would resist corrosion or resist decomposition
23 better than the crocidolite.

1

2

5

8

2

2

1 falls and is removed once a week.

2 Q And the hoods and the vacuum ventilation system that
3 you've described was basically to remove the asbestos
4 dust that was being generated in the manufacturing
5 process?

6 A That's right.

7 Q And you used the same type of engineering both for the
8 chrysotile and for the crocidolite?

9 A We did not process any crocidolite.

10 Q Through carding and through the looms.

11 A That's right. We didn't make any fabrics. We bought
12 some yarns for braiding, but those were dipped in oils
13 or greases and then braided.

14 Q What was your specific job responsibility as
15 superintendent when you started with Garlock in 1939?

16 A Run the plant. ~~Run the plant. Run the plant. Run the plant.~~ preparation,
17 ~~carding, spinning, weaving, and~~ and upkeep of the
18 ~~equipment, purchasing equipment to make repairs when~~
19 ~~all of these machines subject to wear or breakdown,~~
20 ~~lubrications, and so forth, you worked up schedules for~~
21 ~~maintenance.~~

22 Q When you came to Garlock in 1939, was Garlock also
23 aware of the need to keep asbestos dust to a certain

1 ~~level 2~~

2 A I ~~think~~ the federal requirement was in existence at
3 that time.

4 Q Were there any laws that you were aware of from the
5 State of New York that related to the work site and
6 dust?

7 A I don't recall any New York State law.

8 Q How would you compare the knowledge concerning the
9 importance of controlling asbestos dust at Garlock to
10 what you had observed at Manville?

11 A I think we were better here than Manville. I think the
12 dust recovery system was functioning more efficiently.

13 Q Did your responsibilities as plant manager,
14 superintendent, include keeping an eye over how well
15 the dust control system was operating?

16 A I was probably the only one that was closely related to
17 these jobs. I would call the maintenance department
18 for cleaning up once a week or coming in to do any of
19 those operations to keep place working right. It was
20 my job.

21 Q Did Garlock have any respirators available for ~~the~~ men
22 who were working with ~~and around~~ the asbestos?

23 A Yes. / Those people that worked for the maintenance

1 department had to wear the improved mine respirators
2 when they were cleaning up at the end of the week, when
3 they were removing dust from the filterhouses or from
4 cleaning up around the machinery. We used respirators
5 for those men that carried stock. We'd have those box
6 trucks and they would bring the material that had been
7 blended. Rayon and asbestos was loaded into these
8 trucks and brought up the elevator and then brought to
9 feed into the cards, so those men were required to wear
10 respirators during handling of stock by hand.

11 Q How much textiles were produced, ~~asbestos textiles~~ were
12 produced at the Palmyra plant of Garlock?

13 A Oh, I guess it was probably about ~~two million~~ pounds a
14 year.

15 Q And that was sold commercially?

16 A The highest percentage was used within the factory,
17 either in the dipping machines or in the high- pressure
18 manufacturing where they coated it with rubber.

19 Q So some of it --

20 A Most of it was that way, ~~that was shipped in rolls,~~
21 but the most of it was ~~internally used.~~

22 Q And was any of the textiles that you have described
23 also used to make further products like the Garlock

1 gaskets?

2 A Yes. That was after the coating process. There is
3 very little requirement for asbestos just as a dry
4 cloth.

5 Q Once you had made a compressed asbestos sheet out of
6 which gaskets could be cut, you were able to print on
7 that compressed asbestos sheet, am I correct?

8 A They would put a label on it, yes.

9 Q And you could put Garlock's name on it?

10 A It might be a label, the brand, and a style number
11 might be on there, so it could be identified as a
12 Garlock product.

13 Q And that would be right on the product itself?

14 A That would be printed right on the sheet.

15 Q And Garlock made gaskets in various light and dark
16 colors?

17 MR. SHANNON: You're talking about compressed-
18 asbestos sheet gaskets?

19 Q Compressed-asbestos sheet gaskets, what colors did they
20 come in?

21 A Color?

22 Q Yes, sir.

23 A Oh, might be in a black, one a dark gray. They had

1 some in the white.

2 Q Would that be a white or a light gray?

3 A It would be off color white. Once you start using
4 white rubber on white asbestos, you come up with a
5 dirty gray, and they might have a -- I think they may
6 have used some blue and some red.

7 Q Now, the style number, does the number 7005 ring a bell
8 for you from the gasket materials?

9 A I was not majorly connected with that, so -- 700's, I
10 heard those numbers, but I didn't handle them enough to
11 be a good answer for you.

12 Q Am I correct that many of the gaskets produced by
13 Garlock, but not all, had the name of Garlock on the
14 material itself?

15 MR. SHANNON: Again, compressed-asbestos sheet
16 gaskets.

17 A Well, many of the products might have a number and then
18 be boxed in a Garlock-labeled box. I don't think the
19 word "Garlock" would show on everything that they made.

20 Q I understand, but the name was put on some of the
21 compressed-asbestos sheet gasket material?

22 A Oh, I guess the word "Garlock" showed on some of the
23 sheet, yes.

1 Q In the mid to late 40's, would it be fair to state that
2 Garment's employees that were exposed to dust, asbestos
3 dust, were aware that asbestos could possibly be
4 harmful to them if they breathed it without necessary
5 protection?

6 A Most people do not live in a state of awareness of
7 danger hanging over their head all the time. We had
8 probably more long-term workers in textile than in most
9 of the other plants. There was no sense of fear in the
10 plant.

11 Q Was there awareness that it was important to keep the
12 ventilation and exhaust equipment working and to use
13 respirators when you were around asbestos dust?

14 A When you were working in a dusty area, yes. Generally,
15 we had a pretty clean department. On the respirators
16 were not worn by everybody. It was only where you were
17 handling dusty material like feeding a card or laying a
18 batch.

19 Q Were there any programs that you recall Mr. Noughton,
20 at Palmyra to advise the employees of the importance of
21 keeping the ventilation and exhaust equipment working so
22 that the asbestos dust level in the air could be kept
23 low?

1 A That ~~was~~ responsibility of the supervision.

2 Q And ~~what~~ did the supervision do to make sure that the
3 men were aware of the importance of keeping the
4 asbestos content low?

5 A I don't think that generally people are aware of
6 details like that. They depend on their supervision to
7 keep things up to date, and keep adjusting to ~~right~~
8 Now, you make improvements, then it's up to ~~us~~ see
9 that the improvements are kept in the proper shape, and
10 that was the foreman's job. The superintendent might
11 be checking by casual moving through the department to
12 see that it was being done, but you had foremen that
13 were also responsible.

14 Q How many buildings were there at Palmyra?

15 A Oh, the numbers were something like up to 25. Numbers
16 of buildings is kind of a hard thing to do because
17 here's a shed and it's given a number, so roughly,
18 there were around 25 different types of manufacturing
19 going on.

20 Q Who was Mr. Bristol?

21 A Bristol?

22 Q Yes, sir.

23 A He was in charge of the machine shop, and I guess he

1 had yard gang for maintenance of the whole factory
2 outside as well as the tinsmith and the electrical
3 department were all under Bristol.

4 Q In some of the buildings, for example, Building 15, are
5 you able to identify what Building 15 was or what
6 service was performed there, do you recall, in the 1942
7 time frame?

8 A 15? I was in Building 7. 15 I don't think is clear
9 enough in my mind just which it was.

10 Q In Building 8 or Building 15, in June of 1942, I have a
11 paper which I will share with you, but I want to ask a
12 clarification first. A comment was made of the need to
13 remove fumes and impurities on the second floor that
14 were created, generated or released by filling bins
15 with powdered materials. Would the powdered materials
16 being referred to be asbestos?

17 MR. SHANNON: Why don't you let him see the
18 document? It might help. Are you talking
19 about Building 8 or 15? You said both at the
20 beginning of the question.

21 MR. GLASSER: There's a reference, Jim, and I think
22 I'll need his help to clarify it, but I have
23 extra copies of the same document.

1 Q This is the document, Mr. Houghton, I'm showing to
2 you. At the same time I've got another copy here for
3 your counsel. Let me turn to the first page. I'm
4 going to move back just for a second and it is marked
5 June 5, 1942. Do you see that, 6-5-42?

6 A Yes.

7 Q And it has "Mr. Bristol" then the word "important" and
8 it has some initials. Do you know whose initials those
9 are?

10 A I can see a C there, but that number 8 doesn't tell me
11 much. Let's see, I don't know whether that might be
12 C. R. Hubbard. C. R. Hubbard was the vice president in
13 charge of the factory, the molding department.

14 Q If you will turn to the next page --

15 A It looks like Frisbee Walborth.

16 Q That looks like who?

17 A This looks like Walborth.

18 Q This might be a signature from the industrial
19 commissioner. What I was questioning, if you look at
20 the paragraph numbered 1, it talks about the need to
21 "Provide an exhaust system to remove fumes or other
22 impurities from your factory on second floor, created,
23 generated or released by filling bins with powdered

1 materials." Do you see where I read that?

2 A Yes.

3 Q Is the powdered material that they're referring to
4 there asbestos?

5 A It sounds like it may be where they were making up
6 compounds, second floor.

7 MR. GLASSER: Jim, to answer your question, it says
8 Building 8 and 15.

9 A Manufacturing didn't do much blending on the second
10 floor. That was blending in the basement.

11 Q Now, with regard to that on the basement, look with me
12 at paragraph marked number 2. Here the direction is to
13 "Construct and locate hood so that dust from grinding
14 gaskets will fall or be drawn into the hood," and then
15 it has a parenthesis, "(gasket grinding machine -
16 basement - building 8 and 15.)"

17 A They had a mill in the basement for re-- well, they
18 would chop up gasket trimmings to be reprocessed in the
19 mixing, gasket grinding. There might be some type of a
20 gasket tolerance that required a certain thickness, and
21 then they would put it through a grinder which would
22 have a surface grinding operation. That could make a
23 rubber dust and be a nuisance and it could be a fire

1 hazard if you didn't keep your machinery clean.

2 Q Do you have any recollection of a document such as
3 this being delivered to the Garlock Packing Company
4 by the Department of Labor?

5 A No. I being not connected with maintenance, I would
6 not see any report like this.

7 Q Can you identify the writing that appears on the left-
8 hand margin of page 2 of this exhibit?

9 A No.

10 Q If any direction or order were given to the plant to
11 collect certain fumes or grindings that were escaping
12 into the work environment, would those have generally
13 been brought to your attention?

14 A No.

15 Q Are you aware that in the 1942 time frame, there were
16 documents such as this received by the Garlock Packing
17 Company at its Palmyra plant?

18 A They wouldn't have come to me. I was not in the health
19 department. The problems of textiles would come to
20 me. In fact, only to me because it was -- if I needed
21 any help, I'd go to maybe Bristol for electrical or
22 other upkeep business, but for the maintenance of dust
23 control was mine, designing was mine.

1 Q Thank you, Mr. Houghton. I'm going to give this to the
2 court reporter and ask her to identify that please as
3 Houghton Number 1 so they can see what you and I were
4 sharing and talking about.

5 (WHEREUPON HOUGHTON EXHIBIT 1 - Four-
6 page document; first page reading "Mr.
7 Bristol" and "Important" - WAS MARKED FOR
8 IDENTIFICATION.)

9 Q When problems were brought to your attention that
10 needed correcting as it related to the vacuum system or
11 the need to keep asbestos dust low? What sources of
12 information did you have to turn to in addition to your
13 own past experience?

14 A We had a very good man, a John Kattenack, who was a big
15 help in designing dust recovery systems like a cyclone,
16 and he was the one I would go to, and he was very
17 helpful.

18 Q ~~Is he~~ available today?

19 A ~~He~~ he's also in the ground.

20 Q Was there anyone at or ~~available to you at~~ ~~Garlick~~ who
21 kept up with ~~the situation~~ it
22 related to the asbestos hazard?

23 A I ~~thought~~

1 Q My question is had you any time, say, in the 1930's,
2 while you were at Manville or in the early part of your
3 career at Garlock heard of Dr. Merewether over in
4 England and the studies that he had done on asbestos
5 textile plants over there?

6 A I think my answer is no.

7 Q I'm going to show you, and it's a thick document
8 consisting of 34 pages, but I'm showing it to you just
9 to see whether or not that in any way refreshes your
10 recollection. This is only a photocopy of what the
11 document was.

12 MR. SHANNON: Can we identified it for the record?

13 MR. GLASSER: For the record, I'm showing him the
14 "Report on the Effect of Asbestos Dust on the
15 Lungs and Dust Suppression in the Asbestos
16 Industry." It is a two-part paper by E.R.A.
17 Merewether and W.C. Price. It is dated 1930.

18 A One shilling, three pence. No, I did not know of him,
19 and the report that this covers did not come to me.

20 Q I thank you, and I will show you another report and ask
21 you whether you have seen or heard of this.

22 MR. GLASSER: For the record, this is an United
23 States Treasury Department Public Health

1 Report which was done by the United States
2 Public Health Service. It is the January to
3 June, 1935 volume, and specifically from that
4 is an article which carries the date January
5 4, 1935 entitled, "Effects of the
6 Infiltration of Asbestos Dust on the Lungs of
7 Asbestos Workers." It is signed by Dr. A.J.
8 Lanza. Now, one thing that I would show Mr.
9 Houghton and ask him to read is the
10 introduction or the introductory paragraphs
11 on this article to see if that has any
12 meaning to him.

13 MR. SHANNON: You're asking him whether he knew that
14 in 1929 the Metropolitan Life Insurance
15 Company was approached?

16 MR. GLASSER: I'm asking him basically does he have
17 any familiarity with Dr. Lanza's 1935 study,
18 and what I'm showing him which might tie in
19 with what we've discussed on the record is
20 whether or not the Metropolitan Life
21 Insurance Company was the plant that studied
22 Manville. The reference is made that this
23 report emanated out of Manville studies, and

1 I believe also Raybestos-Manhattan studies.

2 A Well, this was not brought to my attention while I was
3 at Johns-Manville. It was not brought to my attention
4 at Garlock. It may be that most -- some of these
5 information were not -- That didn't excite people yet.

6 Q Let me ask was it known while you were at Manville in
7 the 1927-1939 time frame that if you and I went out for
8 the first time today and breathed asbestos, that it
9 would not hurt us or show up on our x-ray tomorrow or
10 next month or even next year but that it took time for
11 the injury which may result from asbestos to show up?

12 MR. SHANNON: Wait, Mr. Houghton. I object to that
13 question. I don't quite understand it, and
14 are you asking whether he knew in the 1930's
15 that there was a lag, that your question?

16 MR. GLASSER: I'll be happy to re --

17 Q Do you understand my question?

18 A I ~~think~~ so, and I don't think that then consciousness
19 of ~~the industry~~ had become too much aware of the
20 seriousness of it, and they weren't preaching to us who
21 were working in the factory you must get going on
22 this. It wasn't the same awareness that you have now
23 was not then.

D 03711

1 Q I understand, but to clarify my question, were you
2 aware that the hazard of breathing asbestos fibers in
3 the 1930's was that over a period of time, it could
4 cause problems?

5 A No. We knew that some folks were sent to be checked by
6 x-ray, but it was not the same plantwide type of study
7 that was undertaken at Garlock. We were sent every two
8 years to Clifton Springs, all of us, for an x-ray
9 check.

10 Q Why?

11 A For an x-ray check.

12 Q Was there --

13 A There was no discussion to the individual why.

14 Q Did you understand why they were taking periodic chest
15 x-rays?

16 A I did, yes.

17 Q What was your understanding, Mr. Houghton?

18 A Well, the reports came back only to those that might be
19 cautioned you'd better move to another department.

20 Q And the reports would reflect that there were some
21 change on your x-ray that related to your breathing
22 asbestos dust?

23 A Not described as such, but we might assume that.

1 Q Let me show you still a third report that I will share
2 with your attorney.

3 MR. GLASSER: This is a report, for the record, from
4 the U.S. Treasury Department Public Health
5 Service, Public Health Bulletin No. 241,
6 dated August 1938, and this was a "Study of
7 Asbestosis in the Asbestos Textile Industry,"
8 and the primary author is Waldemar C.
9 Dreesen.

10 A Now, this bulletin did not come to my hand. It was
11 dated --

12 Q 1938.

13 A --'38.

14 Q Were you aware that the U.S. Public Health Service had
15 evaluated and reviewed four textile plants?

16 A We were aware that the insurance companies would make
17 periodic checks.

18 Q And the standard that you and I have described that
19 limited the quantity of asbestos dust, was that
20 developed, according to your understanding, by the
21 insurance company investigations?

22 A Well, there was a U.S. Bureau of -- I don't know
23 whether it's the Bureau of Safety or something that

1 issued their requirements. I'm not sure of the wording
2 of the department, but there was a Safety Department in
3 the U.S. Government that issued these health notices,
4 and that's the one that -- well, Public Health Service,
5 right in front of me. I don't think it was all from
6 the insurance company. I think the federal government
7 did it maybe because of the insurance company, but I
8 was not in on that kind of a discussion at all.

9 Q I understand. Let me try to find one thing in this
10 report. I'm reading on page 117, and I just wanted to
11 refer in line 3 to the wording where it says "Less than
12 5 million particles per cubic foot." Do you see that?

13 A Yes.

14 Q Was that standard 5 million particles per cubic foot?

15 A That was the top limit.

16 Q And that was the top limit, and if I understand, beyond
17 that limit, there was a recognized hazard to people
18 breathing asbestos?

19 A That was where you were supposed to use respirators.

20 Q And that --

21 A And it was our problem, to keep it below that.

22 Q And am I correct that it did not make any difference
23 where the person worked but if the air that he was

1 breathing had asbestos in it and the measurement was
2 greater than 5 million particles of total dust per
3 cubic foot, there was need for protection, regardless
4 of what his job was?

5 A That's true.

6 (Whereupon a brief recess was taken.)
7

8 BY MR. GLASSER: (Continued)

9 Q You mentioned earlier, Mr. Houghton, the Asbestos
10 Textile Institute. What was the Asbestos Textile
11 Institute?

12 A It was a membership of all asbestos manufacturing
13 companies as well as the different mining companies in
14 Canada. I guess you have one mining company in
15 Vermont, but it was made up of the manufacturing
16 companies as well as the mines.

17 Q And was it an organization formed to render service to
18 buyers and users and makers of asbestos textiles?

19 A Not so much for the users as the producers. I think it
20 was mainly for the manufactures to discuss problems.
21 Each might come up or bring to the organizations some
22 of their thoughts.

23 Q And it was also an organization where you could share

1 advancements, engineering advancements on matters like
2 dust control?

3 A Yes, you could share.

4 Q Now, you mentioned George L. Abbott as being a
5 president of the Garlock Packing Company.

6 A He was president.

7 Q Was he also the representative to the Asbestos Textile
8 Institute in the 1946 time frame for Garlock?

9 A He may have been brought in on some of their
10 organization's side of it, but mostly it would be maybe
11 a purchasing agent, or some other one of the group
12 would be sent to these meetings and I would be usually
13 the one.

14 Q Look with me, please, at the exhibit that I have passed
15 to you and, for the record, it is some minutes of the
16 Asbestos Textile Institute taken at the general meeting
17 held on June 19, 1946 at the Warwick Hotel in
18 Philadelphia, Pennsylvania. Have you seen minutes from
19 the Asbestos Textile Institute?

20 A Some. Those that I attended I would see them.

21 Q Is this in the general form of the minutes that you
22 attended?

23 A I don't remember Harris McKinney. This is back right

1 in the beginning stages, and so I recognize some of
2 these names like George Fabel.

3 Q And he was with Southern Asbestos Company?

4 A Yes.

5 Q And do you recognize any of the other names?

6 A Well, I think I remember Dillon of Johns-Manville.

7 Q What about Mr. Weaver of Raybestos Manhattan?

8 A I may have remembered him. Waken, I remember, of
9 Johns-Manville.

10 Q That's Mr. Waken, W-a-k-e-n, Frank J. Waken?

11 A Yes.

12 Q What about Mr. Widmayer of Keasbey & Mattison?

13 A I don't remember him. I never really got closely
14 attached to --

15 Q What about Mr. J. A. Bettis of Raybestos-Manhattan?

16 A No, I don't remember him.

17 Q If you will, turn with me to page 4 of these minutes
18 that Mr. George L. Abbott attended for Garlock.

19 There's reference to a definition of the Institute, and
20 do these words, in your opinion, reflect the purposes
21 of the Asbestos Textile Institute? "The Asbestos
22 Textile Institute is a voluntary, non-profit
23 organization formed to render service to buyers and

1 users of asbestos textiles."

2 A They're saying users, then they plan to send out
3 bulletins to customers. I was not in on that.

4 Q I understand.

5 MR. GLASSER: I'm going to ask the court reporter if
6 she'd be kind enough to just mark this as
7 Houghton Exhibit Number 2.

8 (WHEREUPON HOUGHTON EXHIBIT 2 - Asbes-
9 tos Textile Institute minutes of June 19,
10 1946 meeting - WAS MARKED FOR
11 IDENTIFICATION.)

12 Q Are you aware as to whether or not some time during
13 1946 or maybe prior to 1946 a report from the Garlock
14 Packing Company relative to their dust control system
15 was prepared?

16 MR. SHANNON: What are you referring to there?

17 MR. GLASSER: Let me give you a copy. For the
18 record, I am looking at the reference to
19 appearance, and I have a copy for Mr.
20 Houghton, also, in the minutes of the dust
21 control committee meeting held on Wednesday,
22 March 13, 1946 at the Engineers Club in
23 Philadelphia, Pennsylvania of the Asbestos

1 Textile Institute.

2 Q On page 2 under paragraph numbered Number 5, there is a
3 statement that "The problem of reduction of dust at the
4 carding engines was then discussed. Mr. McKinney
5 presented a report from the Garlock Packing Company
6 relative to their dust control system." Did you see
7 where I read that?

8 A That's number 5?

9 Q Yes, sir.

10 MR. SHANNON: Your question is does Mr. Houghton
11 remember that report?

12 Q Do you remember a report prepared?

13 A No. There's a fair chance that I may have been asked
14 to prepare the report, but '46, I was there and nobody
15 else was working in a supervisory state in the textile
16 department but me, so I don't remember any report.

17 Q If a report had been prepared as this copy of the
18 minutes indicates, do you know whether a copy of the
19 report would still be available at Garlock?

20 A Well, they had copious storage of reports, but I don't
21 know anyone now over there that is responsible for such
22 a thing, but, you know, it might be the thing to do
23 would be to ask -- I don't know who over there, but

1 what's his name?

2 Q Is this the current management at Garlock?

3 A The current management and the manager -- president was
4 not closely connected with it at that time. We've had
5 several changes in the top. Dick Watson would probably
6 be able to dig in to whoever might be having knowledge
7 of times. The one in charge of files is dead. She was
8 a pretty good person to go to, but I think this would
9 have to be brought up to Dick. He would be a much
10 better one to go after than me.

11 MR. GLASSER: Let me make a request to the attorneys
12 that are here. I would request that you ask
13 Mr. Watson whether or not he knows of and can
14 produce a copy of the report from Garlock
15 Packing Company relative to their dust
16 control system that was presented to Mr.
17 McKinney, who is Harris D. McKinney, the
18 Institute Manager of the Asbestos Textile
19 Institute and discussed in these minutes of
20 March 14, 1946, and I have no reluctance, as
21 stated on the record, I have very high regard
22 for Jim Shannon, and if that inquiry can be
23 made, if you think it's more appropriate that

1 we file it with a more formal notice to
2 produce, I will do so, but I'm trying to
3 accomplish that more informally right now,
4 and if that's permissible to make that
5 request --

6 MR. SHANNON: We'll note your request and make your
7 request to Mr. Watson.

8 A This paragraph 2 refers to a Bausch & Lomb dust
9 counter, and we purchased a Bausch & Lomb dust
10 counter. That was in effect when you saw that 5
11 million particles reference. Well, that's when we were
12 using it, and we used it here. It was a device in
13 which there was a combination of a magnified device and
14 a cylinder with a plunger that would suck in a cardium
15 of air and impinge that against a glass plate. We used
16 a piece of paper that we would moisten to give humidity
17 and we put that in the chamber, and when you pulled
18 that plunger, the air was slightly moistened and
19 particles would be lodged on that glass plate. Then
20 you simply pick the thing up and you -- the plate was a
21 disc and that sample would be a little band and you had
22 about 12 positions on that glass plate, so you could
23 make samplings at different places.

1 Q Looking through a microscope?

2 A Right, and then we would -- we had a numbering so we
3 had a record of where we had taken our samples and then
4 I would plug it into the -- There was a light on it and
5 you would count. It was a little grid. It was a two
6 bars and some vertical marks, and in that area was the
7 equivalent of a reading of a cubic foot.

8 Q And you could determine, therefore, what the dust was
9 by making this counting and make a very good educated
10 guess as to what the dust concentration was in the
11 area?

12 A As you were counting maybe 40 particles on that little
13 plate, the 40 particles times a thousand would be forty
14 thousand. I'm talking a little bit out of the top of
15 my head, but --

16 MR. SHANNON: Mr. Houghton, excuse me, but don't
17 talk out of the top of your head. Wait for
18 Mr. Glasser to ask you a question and answer
19 what he asks you. If he wants to get more
20 information about this mechanism, I know he
21 will ask. Don't discuss, Mr. Houghton,
22 please do not discuss things he doesn't ask
23 you about.

1 Q But I'm very interested and I take it from your
2 statements that you did some of the counting yourself.

3 A (No verbal response.)

4 Q You're nodding your head yes?

5 A Yes.

6 Q These countings were done at Garlock in the 1946 time
7 frame or earlier?

8 A The year we bought it I can't give you, but we had it.

9 MR. GLASSER: I'm going to ask please that this be
10 marked as Houghton Number 3, and specifically
11 they are the minutes of the dust control
12 committee meeting held March 13, 1946.

13 (WHEREUPON HOUGHTON EXHIBIT 3 - March
14 13, 1946 dust control meeting minutes - WAS
15 MARKED FOR IDENTIFICATION.)

16 Q I'm going to go back to what is marked Houghton Exhibit
17 Number 2, and this is the minutes of June 19, 1946
18 where Mr. George Abbott, George L. Abbott, attended for
19 Garlock. On paragraph Number 2, it states that one of
20 the activities that had been done during the last
21 quarter included the "notification to members and
22 nonmembers on O.P.A removal of ceiling prices." That
23 was one thing they did. Another thing was the

1 "distribution of the Garlock Dust Control System
2 report," and that's the report that I've asked you did
3 you specifically recall.

4 A I do not recall it.

5 Q Do you know whether it was the practice of the ATI to
6 keep not only members advised of what was going on but
7 also keeping nonmember companies informed of Institute
8 activities?

9 MR. SHANNON: Mr. Glasser, please, if you're going
10 to ask him a question, if he knows, ask him,
11 but I think the record should reflect you're
12 pointing out something on that document which
13 evidentially indicates what you've just
14 asked.

15 MR. GLASSER: I'm happy to confirm what I was
16 showing him when I asked the question is
17 paragraph number 3. In fact, let me read it
18 to the record, and I'm reading from Houghton
19 Exhibit Number 2, the minutes of general
20 meeting of June 19, 1946.

21 Q Was it your understanding that this was a regular
22 practice, namely, "The president brought up the matter
23 of keeping nonmember companies informed on Institute

1 activities." Do you know whether the Asbestos Textile
2 Institue not only tried to serve its members concerning
3 asbestos matters but also nonmembers?

4 A I don't know that.

5 Q Going back, Mr. Houghton, to the 1946 time frame,
6 again, the mid-40's, were you familiar with the
7 Industrial Health Foundation, the IHF?

8 A No, I was not kept up to date on that, no.

9 Q Do you recall whether or not a study was made of the
10 Garlock Packing Company's plant by a Mr. W.C.L. Hemeon
11 who was a chief engineer for the Industrial Health
12 Foundation in the 1947 time frame? Do you remember
13 people coming or Mr. Hemeon coming to the plant to
14 study and evaluate what you do with regard to dust
15 control?

16 A I can't give you an answer. No, I'd say no.

17 Q I will share some papers with you that may or may not
18 help let me ask this question first. Are you aware
19 that the Asbestos Textile Institute at its meeting as
20 reflected by the minutes of the subcommittee meeting on
21 dust control committee held June 13, 1946 at the
22 Engineers' Club in Philadelphia, was concerned and I'm
23 reading in paragraph 1A of those minutes, of the

1 "Importance of dust control problem to all member
2 companies and the need for immediate cooperative
3 action." My question: Were you aware that the
4 Asbestos Textile Institute was discussing the need to
5 gather information, facts, on dust determination and
6 control procedures in the various plants of its
7 members?

8 A I do not remember any report of that action.

9 Q Were you aware of any services that were available by
10 the Mellon Institute in Pittsburgh?

11 A I'm not aware now. No, I can't say I was aware.

12 Q And I might have asked this, but were you aware that
13 the Industrial Health Foundation operated out of
14 Pittsburgh and offered industrial hygiene, engineering
15 and medical advice to industry where it was sought?

16 A No.

17 MR. GLASSER: For the record, I will ask that this
18 be marked as Houghton Number 4.

19 (WHEREUPON HOUGHTON EXHIBIT 4 - June
20 13, 1946 Dust Control Committee minutes - WAS
21 MARKED FOR IDENTIFICATION.)

22 MR. GLASSER: Off the record.

23 (Whereupon a discussion was held off the record.)

Q I'm going to show you a thick document, and though it's all one document, the copy that I give you is divided by some loose pages and then there's a paperclipped portion and then some more loose pages. I'm going to ask the court reporter to mark this entire exhibit as Houghton Number 5, and for the record, I will read it with Mr. Houghton. This is a report of the Industrial Hygiene Foundation of America, Incorporated out of Pittsburgh. It is a "Report of the Preliminary Dust Investigation for the Asbestos Textile Institute," dated June, 1947 by W.C.L. Henson, head engineer; specifically, it's dated June 13? I think June 13, 1947. I'd like you to take a moment or as much time as you need and look at that, and I don't want to speed your taking the time. You take your time, but also let me pull out for you the paperclipped portion, and the paperclipped portion is dated July 11, 1947 and it's a "Memorandum on the Plant of the Garlock Packing Company Supplementing the General Report," and the general report is the document that you have, and it identifies that as the "Preliminary Dust Investigation For Asbestos Textile Institute of June, 1947," and you might look specifically at this three-page report to

1 see whether it has any effect on your memory concerning
2 a study that was done by Dr. Hemeon on the Garlock
3 Packing Company plant.

4 A "We rate this as average."

5 MR. SHANNON: Don't read out loud. She'll write it
6 down. Just read it to yourself.

7 MR. GLASSER: Off the record.

8 (Whereupon a discussion was held off the record.)
9

10 MR. GLASSER: While we were off the record, Mr.
11 Houghton had just a matter of several minutes
12 to look at the document, which is a rather
13 large document. We decided we're going to go
14 to lunch. I have told Mr. Houghton in the
15 presence of his counsel that when we return
16 from lunch, I will ask you him whether or not
17 the document has any effect on his memory,
18 whether or not he recalls this study being
19 made; specifically, whether he remembers or
20 recalls a study being made of the Garlock
21 facility, which is included in this report,
22 but in any event, we'll resume those
23 questions following the lunch hour.

Midtown Reporting Service

501 Times Square Building
New York, N.Y. 10036

D 03728

1 (Whereupon a recess was taken at 12:50 p.m. and the
2 deposition reconvened at 1:50 p.m.)
3

4 MR. GLASSER: We have had a lunch break since
5 approximately an hour ago, and when we
6 returned, Mr. Houghton had not had an
7 opportunity to review the document that we
8 left with him, namely the Hemoen document
9 which we marked as Houghton Exhibit Number
10 5. Since we've been back ten minutes or so,
11 he has had time --

12 MR. SHANNON: Five.
13

14 BY MR. GLASSER: (Continued)

15 Q You've had some time, Mr. Houghton, to review the
16 large document and the three-page paperclipped
17 portion?

18 A I've gone in detail on the one Garlock.

19 Q Do you have any recollection of an examination or
20 evaluation having been made by the representatives of
21 the Industrial Hygiene Foundation of America around the
22 1947 time frame as a part of an investigation of
23 approximately ten plants that the Asbestos Textile

Institute was overseeing?

A I can recall making studies myself and ~~insurance~~
~~company~~ but as for tying it to
 a definite report, I cannot accurately say. I know
 that.

Q As I understand your testimony, were there reports or
 evaluations made of the Palmyra plant in the mid
 1940's?

A Since you say in the area of the 40's, yes.

Q What you don't have any specific recollection of Dr.
 Hemeon coming through and reviewing your plant and
 writing this report.

A No.

Q Did Garlock have a rather unusual interplant heating
 system where extra heat from one plant was carried over
 to another plant?

A Heating?

Q Heating or excess hot air removal.

A Each plant had its own heating system from the power
 plant's supply of steam. Our own thermostat would take
 care of our unit. Each building was a unit, but there
 was no pumping of air around. It was steam heated by
 independent heating units.

1 Q Staying with the period around the date of this report,
2 namely, July 1947, were you aware that there was
3 concern in the Asbestos Textile Industry to try to
4 determine or verify whether the 5 million level was in
5 fact a safe or sure level?

6 A No.

7 Q Were you aware that there were efforts among the
8 various asbestos textile manufacturers through the
9 Asbestos Textile Institute to exchange information on
10 how to improve things?

11 A I think it was an independent effort to improve your
12 particular unit. We weren't -- I was not concerned
13 with other units.

14 Q But if you had good information, you were willing to
15 share it through the Asbestos Textile Institute with
16 others?

17 A Willing. I was always willing but there was not a
18 constant feeding from one to another.

19 Q Was it your understanding in the mid 1940's that the 5
20 million particle standard that we have discussed was
21 not positive insurance that no disease would occur, it
22 was more of a goal to strive for, is that correct?

23 A It was more as a goal, yes, that's -- I was not in the

1 health department.

2 Q As an engineer, were you aware that there was the
3 electron microscope was in existence in the 1946-1947
4 time frame?

5 A To answer that question, I couldn't say -- no, I was
6 not aware that it was available for our use.

7 Q But were you aware that it had been invented?

8 A Oh, I think I may have heard that they had developed
9 the microscope.

10 Q The electron microscope?

11 A The electron microscope; yes.

12 Q Am I correct that the electron microscope had an
13 ability to see things at a far greater magnification
14 than a regular light microscope?

15 A Yes, I've heard that.

16 Q Were you aware that there was concern expressed in the
17 1947 time frame that the light microscope was not a
18 good device for counting very small asbestos fibers?

19 A No, I didn't hear that.

20 Q Did you know the difference between a fiber and a
21 particle?

22 A I think the definition was a fiber was of some 5
23 microns or over; a particle was a spot.

1 Q Would it be fair to say that a fiber was three times
2 longer than it was wide and a particle was more of a
3 rounded shape.

4 MR. SHANNON: I object to that.

5 A No, I can't say that.

6 MR. SHANNON: He hasn't testified to anything like
7 that.

8 A I can't say that.

9 Q I'm showing you a page that comes out of the Remeon
10 report, Houghton Number 5, that has a copy of what
11 purports to be a photomicrograph. Do you see where I
12 show that?

13 A Yes.

14 Q Have you ever seen in the 1947 time frame pictures or
15 studies of asbestos that were produced under an
16 electron microscope?

17 A No.

18 MR. GLASSER: I am going to request the court
19 reporter to confirm that this has been marked
20 as Houghton Number 5 and pursuant to my off-
21 the-record discussion with Jim Shannon, I am
22 going to give you today the cover sheet of
23 that exhibit, and I'll discuss it on the

1 recors. My notations were basically my own
2 cues that give me an abbreviated portion of
3 the text. I really don't have an objection
4 to that being filed. I think it would be
5 nicer to have a nice clean copy, but rather
6 than run the risk I'm going to leave her this
7 copy and then if I can supply her with a
8 clean copy, then it will be substituted. The
9 copy of the text is identical.

10 MR. SHANNON: I don't have any objection of what-
11 ever you want to do. If you want to supply
12 her with a clean copy at a later time, that's
13 perfectly all right.

14 MR. GLASSER: Pusuant to that I'm going to add to
15 page one the rest of this bulk.

16 MR. SHANNON: Off the record.

17 (Whereupon a discussion was held off the record.)

18 (WHEREUPON HOUGHTON EXHIBIT 5 - 85
19 pages; first document being "Report of
20 Preliminary Dust Investigation For Asbestos
21 Textile Institute, June 1947 - WAS MARKED FOR
22 IDENTIFICATION.)

23 Q Mr. Houghton, did you have any occasion, sir, in the

1 1940's to attend any of the meetings of the Asbestos
2 Textile Institute?

3 A I have no record that I know of of my attending in the
4 40's. I think my start was in the 50's.

5 Q Was it Mr. Abbott who attended ATI for Garlock in the
6 1940's?

7 A He probably did. When I attended, he did not.

8 Q When he attended in the 40's, did he ever report to you
9 what had been discussed?

10 A I cannot recall any reports from him.

11 Q Do you know to whom he would ordinarily report in the
12 1940's?

13 A It might have been through the various different
14 factory managers, Cecil Hubbard for a number of years,
15 and my memory is poor, but there were probably a period
16 of not more than five or six years of any one of the
17 various managers when something took place and they
18 would change or they died.

19 Q Mr. Hubbard, you told me, is no longer available?

20 A He's dead. I guess he's been dead for 20 years.

21 Q Do you know whether any of the managers of any of the
22 asbestos-producing Garlock plants from the 1940's are
23 still alive and available?

1 A I don't think so. Mullen is dead and oh, fella that
2 lived down here, he's dead. No, there aren't many of
3 them alive. All along the line, they've dropped off,
4 and they didn't work in the asbestos plant.

5 Q We have talked about various dust counting techniques
6 that were used within the plant on the carding and
7 other dust-producing operations. To your knowledge,
8 did Garlock ever run tests to determine the dust count
9 of how the product would act when it was being used by
10 the user?

11 A Not that I know of, no.

12 Q To your knowledge, did Garlock ever publish any booklet
13 or put down in a report for its customers what
14 precautions should be taken when people, users, were
15 using asbestos containing products from Garlock?

16 (Whereupon a discussion was held off the record.)

17 Q Were you shaking your head before we went off the
18 record?

19 A I can't give you any positive answer, no.

20 Q To your knowledge, at any time while you were with
21 Garlock, did they ever place a warning on their
22 asbestos-containing materials to warn people of any
23 hazard that might be associated with the use of the

1 products?

2 A It was not my job. I don't know of anyone doing that,
3 but I can't give you an answer.

4 Q How long did you remain in the employ of Garlock?

5 A Thirty-one years on salary there, nine years as a
6 consultant after retirement.

7 Q And if my mathematics is correct, then, you would have
8 worked for Garlock from 1939 until 1970?

9 A That's right.

10 Q On salary?

11 A On salary.

12 Q And then, are served in a consultant capacity from
13 1970 to 1979?

14 A Yes.

15 Q And your answer about never having seen any warnings
16 on any of the asbestos-containing products --

17 A No.

18 Q -- that would be true from 1939 to 1979?

19 MR. SHANNON: That also assumes that he would have
20 had an opportunity to observe. You didn't
21 ask him where he might have served as a
22 consultant. My father is a consultant now in
23 his old firm, and he hasn't been in the firm

1 for years.

2 Q Am I correct that you never from 1939 to 1979 saw any
3 warning on the asbestos-containing materials
4 manufactured by Garlock?

5 A No.

6 Q What was the nature of your consultant work from 1970
7 to 1979 for Garlock?

8 A Some was development work in the factory. Mainly
9 concerned with graphite, yarn and Teflon. Some of it
10 has been in foreign countries: I was sent to set up
11 braiding plant and instruct the weavers -- the
12 operators on making braided packings, both in France
13 and in the Philippines. For one period, I examined a
14 textile plant reporting back conditions I found in that
15 plant in Spain.

16 Q Were these all Garlock plants?

17 A All Garlock plants.

18 Q Has Palmyra always been its primary manufacturing site
19 for ~~packings~~ and textiles?

20 A Its primary, yes.

21 Q Did Garlock, to your knowledge, ever share any of the
22 information it had about the importance of reducing
23 dust where asbestos dust was being generated? Did it

1 share that information with any of the users or
2 purchasers of its product?

3 A I was not in on any of that, no. As for Garlock doing
4 it, I can't give you an answer.

5 Q When did you first become aware of any association
6 between the infiltration of asbestos fibers and any
7 form of cancer?

8 A You say when? That I can't give you a good answer.

9 Q I have a paper that I will be discussing with you in a
10 matter of moments from March of 1966 where the records
11 indicate you attended an ATI meeting, but I want to ask
12 some leading questions first. When did you first start
13 attending ATI meetings?

14 A Probably about 1960.

15 Q But if a record indicates that you had attended
16 earlier, could you have attended as early as March of
17 1956?

18 A Being on memory, possibly. In Philadelphia.

19 Q That's correct, that's correct. Did you know the name
20 in the 1950's of the Saranac Laboratories in Saranac,
21 New York?

22 A I think I'll have to say no.

23 Q Did you know the name as best you can recall, Mr.

1 Houghton, of Dr. Garrett Sceepers?

2 A No.

3 Q Did you know the name of Dr. Wilhelm Hueper?

4 A I'll have to say no.

5 Q Let me show you the document that I had reference to
6 and I'm going to show you and your attorneys two
7 different documents which I am going to mark numbers
8 Houghton Number 6 and Houghton Number 7. Houghton
9 Number 6 will be the minutes of the general meeting of
10 the Asbestos Textile Institute held March 8, 1956 in
11 Philadelphia, Pennsylvania, and Houghton Number 7,
12 though inconsistent chronologically, will be the
13 minutes of the meeting of the Board of Governors of the
14 Asbestos Textile Institute held on March 7, 1956 in
15 Philadelphia, and let me give a copy of these to
16 counsel.

17 (WHEREUPON HOUGHTON EXHIBITS 6 and 7 -
18 Minutes of March 8, 1956 and March 7, 1956
19 meetings of the Asbestos Textile Institute,
20 respectively - WERE MARKED FOR
21 IDENTIFICATION.)

22 Q Mr. Houghton, I'm turning to now what the court
23 reporter has marked as Houghton Number 6, and in terms

1 of the general form, can you identify this form as
2 being what you recall the Asbestos Textile Institute
3 minutes generally to look like?

4 A Well, it looks like the type of report that we
5 received.

6 Q And do you see your name on page 1?

7 A Right here, there and here. (Indicating.)

8 Q And so that the record is clear, the two places that
9 you referred to, number one was on the list of those in
10 attendance over on the right-hand side of the page in
11 the middle, in all caps it says, "Garlock Packing
12 Company," and it says G. E. Houghton, that's you, is
13 that correct, sir?

14 A Yes.

15 MR. SHANNON: Attending as a guest.

16 MR. GLASSER: Attending as a guest, that's right.

17 Q And the second place where your name is listed is in
18 paragraph number one where it states in the next to
19 last line of that paragraph that Mr. G. E. Houghton,
20 Garlock Packing Company, and Frank Gatke, Asbestos
21 Textile Company were in attendance at the meeting and
22 also were in attendance at the Air Hygiene meeting on
23 March 7th, okay?

D 03741

1 A All right.

2 Q If if you turn over to pages 2, in paragraph number 6,
3 it indicates that at the meeting on March 7th, the day
4 before, that one of the matters that was fully
5 discussed were the comments of Dr. Smith, that's
6 Kenneth Wallace Smith of the Johns-Manville
7 Corporation, which related to the report issued by Dr.
8 Hueper, who was with the National Cancer Institute, on
9 a subject relating asbestosis with lung and heart
10 disease was discussed at great length. Do you see
11 where I'm reading that?

12 A I see where you're reading it, yes, but I was not at
13 that earlier meeting. This was an earlier meeting,
14 wasn't it?

15 Q I understand but if you will turn back with me and see
16 whether this refreshes your recollection. In paragraph
17 number 1 it states, and I'll read it in its entirety
18 and you read with me, "The meeting was called to order
19 by President Waken and an address of welcome extended to
20 all of the members present. Recognition and welcome
21 was also extended to representatives of two former
22 member companies who attended the meeting of the Air
23 Hygiene Committee on March 7 and were also in

1 attendance at this meeting, namely, G. E. Houghton,
2 Garlock Packing Company, and Mr. Frank Gatke, Asbestos
3 Textile Company." Do you see where I've read that?

4 A This apparently my first meeting with the ATI.

5 Q But the question is raised concerning the meeting on
6 March 7th, and for that I would ask that we turn to
7 the other exhibit that I gave you which you now have in
8 front of you, and this is the one for March 7th, and do
9 you see -- and I'd like you to look at paragraph 24,
10 and take a moment. It's difficult to read. I'll be
11 happy to read it with you. Can you read it? Sir,
12 while you're flipping on the light to see better, do
13 you remember Dr. Kenneth Wallace Smith from the
14 Johns-Manville Corporation?

15 A I cannot give any accurate remembrance of this man.

16 Q Are you able to read it, Mr. Houghton?

17 A Most of the words I can understand.

18 MR. SHANNON: Off the record.

19 (Whereupon a discussion was held off the record.)

20 Q You and I will read it together. He's going to read it
21 and she'll take it down so the record is clear.

22 Starting on A, it says, "The Air Pollution Committee

23 report was presented by two representatives from that

1 committee, Dr. Kenneth Smith and Mr. D.R. Holmes,
2 chairman of the committee. Dr. Smith addressed the
3 meeting first with remarks directing attention to a
4 report issued by Dr. Hueper titled 'Public Health
5 Monograph #36, A quest into the environmental causes of
6 cancer of the lung.' Much of the information set forth
7 in this report is unsubstantiated and is in variance
8 with established understanding and knowledge of
9 informed men in the medical profession; however, this
10 article is apparently assumed to be the only authentic
11 treatise today available which may be used as a
12 reference for court action involving asbestosis and its
13 relationship to heart disease and lung cancer. Dr.
14 Smith strongly recommended that the Institute initiate
15 a program of investigation and publicity to counteract
16 the unfavorable publicity presently directed to the
17 asbestos industries as a result of the work of Dr.
18 Hueper. It was recommended that the Industrial Air
19 Hygiene Foundation be engaged to collect the necessary
20 information to publicize the results so obtained." Did
21 I read that correctly?

22 A Yes.

23 Q Do you recall the presentation by Dr. Kenneth Smith

1 concerning the article that had been written by Dr.
2 Hueper associating asbestosis and lung cancer?

3 A If I had seen that, it would have been from a report
4 because I wasn't at that meeting.

5 Q If you will turn back with me to Houghton Number 6, do
6 you recall being at the meeting on March 8, 1956?

7 A Yes.

8 Q Do you recall at that meeting as is reflected by Number
9 6 of those minutes that the report concerning Dr.
10 Hueper's article was discussed at the meeting that you
11 were in attendance at on March 8, 1956? Do you
12 remember any discussion such as is reflected by Number
13 6 of the minutes?

14 A To recall? No.

15 Q Do these minutes, and take your time and review them,
16 and see whether any of the matter the discussed help to
17 serve or refresh your recollection.

18 MR. GLASSER: Off the record.

19 (Whereupon a discussion was held off the record.)

20 MR. GLASSER: Jim Shannon has pointed out to me
21 that in Houghton Number 6, the minutes from
22 March 8, 1956 that there is a very obvious
23 deletion of four or five inches or so in the

1 middle of page 2 of those minutes. There is
2 a partially visible 5 in the left-hand margin
3 apparently marking paragraph 5 which has been
4 blocked out. My best knowledge is that this
5 is a copy of what we have in our office
6 expressly, so that no question is raised, it
7 is nothing that we have blocked out, and yet
8 I leave open the fact that should anyone be
9 able to produce a bonified copy of the
10 minutes of this meeting, that we will be
11 happy to receive that as an exhibit or
12 perhaps a supplemental exhibit which we could
13 mark 6A for whatever value that is. My copy
14 does not reflect paragraph 5, and I have no
15 information as to what it is or how it got
16 blocked out.

17 A I remember being at this meeting, but then you asked me
18 do I recall these various items. My answer would be
19 no.

20 Q My concern, Mr. Houghton, is to determine do you
21 recall any mention associating asbestos or asbestosis
22 with lung cancer from the meeting?

23 A Oh, I think I've absorbed that over the years.

1 Q What about in the time frame around March of 1956? Do
2 you recall having looked at this, and I don't mean to
3 try to ask do you remember everything, but I'm trying
4 to determine do you have any recollection as to whether
5 you had heard anything concerning the association of
6 asbestosis and lung cancer in the 1956 time frame?

7 MR. SHANNON: I object to the question because it's
8 been asked and answered at least two or three
9 times now, and the continued repetition of it
10 is beginning to suggest an answer to him.

11 MR. GLASSER: I don't mean for it to do so.

12 MR. SHANNON: I know you don't mean it. It's going
13 to have that effect if you keep asking it of
14 him.

15 Q Do you understand my question?

16 A I understand do I have that knowledge, but not -- I
17 don't recall when I got the knowledge.

18 Q Do you recall whether or not you would have received a
19 copy of the minutes of the meeting that you attended?
20 Wasn't that generally the practice of --

21 A The practice would be about a month after the meeting.

22 Q And was it your personal practice with regard to
23 meetings that you had attended to read or review the

minutes that were sent to you?

1
2 A Yes.

3 Q And is it not more likely than not that you would have
4 received a copy of these minutes, and I'm referring to
5 Houghton Number 6 which has your name mentioned?

6 MR. SHANNON: I object. That calls for complete
7 speculation. He's he told you that he
8 remembers being at the meeting, but he can't
9 remember the specific topics. Now you're
10 asking if he remembers receiving the
11 document.

12 Q That's a different question, but do you recall
13 receiving a copy of these minutes?

14 A I recall receiving copies of minutes, yes. This
15 particular one, I can give you a positive answer.

16 Q Customarily when you did receive minutes, you would
17 review them?

18 A Yes. Years have go by.

19 Q I understand that, I really do, Mr. Houghton, and I
20 know that the question is tough. You never had
21 occasion in reading minutes that you received from
22 ATI meetings to say well, that's wrong, that didn't
23 happen or make any correction to any minutes?

1 A No.

2 Q Going to a different topic, Mr. Houghton, are you aware
3 that in 1957 on November 14, 1957 a Worker's
4 Compensation claim was filed by a lady by the name of
5 Grace Baylord claiming that she had either pulmonary
6 fibrosis or pulmonary asbestosis and her job or work
7 place was the textile department where she had been
8 employed intermittently from 22 years during the 1923 to
9 1957 time frame? Do you remember or knew Grace
10 Baylord?

11 A Yes. That was her married name.

12 Q Was she a worker under your supervision?

13 A Yes.

14 Q Were you aware that in 1957 she filed a Worker's Com-
15 pensation claim against Garlock for pulmonary
16 asbestosis?

17 A I think my answer would be yes.

18 Q And you're aware that she was paid funds then?

19 A I don't recall seeing that report, but I know she
20 filed a claim.

21 Q Was she the first claim for asbestosis that you are
22 aware of at Garlock or were there ones earlier than
23 1957?

1 A I can't answer that.

2 Q You don't recall any before 1957?

3 A No, I don't recall any.

4 Q Do you know what her job was in the textile department?

5 A I think she was a twister operator. Twister means a
6 machine that combines two or more threads together and
7 twists it. She was a twister operator.

8 Q Did the twister have a local exhaust ventilation
9 system?

10 A No. The yarn is spun so it doesn't produce much dust,
11 so the twister is relatively a clean machine. The
12 spinning frame produced dust. That's the one I put
13 machine dust recovery equipment on.

14 MR. GLASSER: Off the record.

15 (Whereupon a discussion was held off the record.)

16 Q What period of time did you attend the ATI meetings
17 yourself?

18 A Most of the meetings from that date there.

19 Q From 1957?

20 A '56. Most of time I attended up to 1970. I think that
21 there were not many that -- I didn't attend one.
22 There's one I did not attend was down in South
23 Carolina. It was at a Hilton Head.

1 Q They had approximately how many meetings a year?

2 A It was two, sometimes three.

3 Q Did you serve on any committees?

4 A Oh, yes, we would break up into committees, but I
5 haven't clear-cut records of committees I served on,
6 but we would have a general meeting, then we would meet
7 in groups, probably mostly reflecting that sections we
8 were involved in.

9 Q Did anyone else attend meetings with you from Garlock?

10 A Yes.

11 Q Who generally would attend with you or in addition to
12 you?

13 A It was not always the same one. I can't give you
14 those names. I'd have to work on my memory, which
15 isn't very good. I can't give you a list of names. I
16 know that Sedella Dixon went with me in the latter part
17 because he came with us in 1967.

18 MR. SHANNON: Off the record.

19 (Whereupon a discussion was held off the record.)

20 Q I understood your testimony that starting with 1966 and
21 continuing through 1970 that you attended many of the
22 meetings yourself and you rarely missed any.

23 A Yes.

- 1 Q The one that you missed was in Hilton Head, that your
2 aware of?
- 3 A That's the only one that stands out in my mind.
- 4 Q And in addition to your attending, there were other
5 people who would, on occasion, attend from Garlock?
- 6 A Yes, there would be frequently there would be one
7 other.
- 8 Q Mr. Kuzmuk?
- 9 A Kuzmuk.
- 10 Q Did Al Dayton ever go?
- 11 A I don't think I remember Al Dayton being with me. He
12 was on the safety committee.
- 13 Q Did you go to any meetings of the ATI after 1970?
- 14 A I think not.
- 15 Q When you went to meetings of the ATI between 1956 and
16 1970 and returned to Palmyra, to whom would you report
17 what had happened at the meeting?
- 18 A It would only be the factory manager. Factory manager
19 sometimes was the vice president, but it would be the
20 factory manager that I would directly report to.
- 21 Q And your position, Mr. Houghton, when you came in, you
22 were initially, I believe you told us, a superintendent
23 in the textile department?

1 A Up until 1968 and then they wanted me to go in the new
2 missile department, so I was moved over to the
3 engineering department from then on, I worked in the
4 missile department and then he worked on development
5 for Chevron and other products, probably mainly
6 Chevron.

7 Q Did you continue to have contact with those plants
8 that were making asbestos-containing materials?

9 A When an Asbestos Textile meeting would take place,
10 they'd ask me if I could go.

11 Q And you would attend for the company?

12 A Yes. I was the -- up until -- now, that was -- yes,
13 1970. From then on, I didn't attend, but that was 1960
14 that I started working on engineering, but I was still
15 more or less related to the textile departments, more
16 or less consultant for textile problems.

17 Q And still attending the Asbestos Textile Institute
18 meetings?

19 A Yes.

20 Q Is it fair to state that one of the topics that was
21 discussed at many meetings was the health effect
22 associated with exposure to asbestos and ways to
23 control it dust?

1 A Some, not all.

2 Q It was discussed at some meetings but not all meeting.
3 Did there come a time where you heard any discussion at
4 the Asbestos Textile Institute about the need to place
5 warnings on asbestos-containing products?

6 A I recall no discussion on warnings.

7 Q After 1970, when you were no longer on the payroll but
8 were serving as a consultant to Garlock, were you
9 kept abreast as to dust counts that were going on at
10 the plant and what the asbestos levels were in those
11 dust counts?

12 A Only in discussions. We had developed a new plant and
13 I was following that, Out in Sherbrook. I was aware of
14 what was happening there.

15 Q Did you know who Mr. H.R. Hughes was?

16 A Hughes? That's not clear in my mind.

17 Q Do you know who Mr. L.A. Green was?

18 A Green?

19 Q Yes, sir.

20 A No.

21 Q Are you aware as to whether or not Garlock was cited
22 for any occupational safety and health violations in
23 the 1972 time frame under the new OSHA law?

1 A I didn't hear of it.

2 Q In your experience as an engineer, did you ever have
3 occasion to use yourself or to hear of anyone else who
4 used a tindle-beam lamp to help visual observation of
5 dust movements, and what I'm showing Mr. Houghton as I
6 speak is a letter dated August 18, 1972 from Turner
7 Brothers Asbestos Company Limited to a Mr. D.J. Kamel,
8 Vice president International Operations, Garlock Inc.,
9 1250 Midtown Tower, Rochester, which has a Garlock
10 "received" stamp on it of August 31, 1972 with the
11 notation "vice president engineering." You see the
12 reference on page 2 of this letter?

13 A I do not remember hearing of that. I knew that Kamel
14 was president, but I did not hear of that.

15 Q You never had occasion in evaluating any dust to use a
16 tindle light --

17 A No.

18 Q -- to help you to see the dust or the fibers?

19 A Only this Bausch & Lomb.

20 Q The Bausch & Lomb counter that you described?

21 A That one.

22 Q Mr. Houghton, when you were with Garlock, even in the
23 very late 1930's and 1940's, were you aware that the

1 Garlock asbestos-containing products were going to be
2 used by various mechanics, asbestos workers, insulators
3 as a part of their day-to-day jobs?

4 A The products we made were not of the insulation type.
5 We made packing rings, gaskets.

6 Q But you were aware that Garlock gaskets, for example,
7 would be used on ships to work with flanges and valve
8 covers?

9 A Yes.

10 Q Were you aware that Garlock gasket materials were being
11 sold to the government for use aboard ships?

12 A When you say you were aware, I was not connected with
13 the sales department. I knew gaskets were being made.

14 Q And did you know that gaskets were or some of the
15 gaskets would be used aboard ships?

16 A Well, just in conversation I would say I would assume
17 they would be, but I was not connected with sales.

18 Q Were you also aware that other materials, perhaps from
19 your days at Manville, were being used to go on pipes
20 and boilers, turbines and heat-generating equipment?

21 A That type of product was made by Johns-Manville.

22 Q I understand.

23 A I knew that that was being made for boilers and

1 turbines.

2 Q And did you also know that some of the gaskets that
3 were being made by Garlock would also end up being used
4 on boilers and turbines?

5 A Not then. I didn't even know who Garlock was.

6 Q Let me clarify. Once you came to work for Garlock and
7 you knew that they were making compressed gasket
8 sheeting and gaskets, you were aware that some of the
9 Garlock gaskets would be used on boiler and turbine
10 couplings and on pipes leading off of boilers and
11 turbines?

12 A List of names did not come to me in the textile
13 department, but I knew Garlock was making gaskets. It
14 was up to the sales department where they were to go
15 to.

16 Q And you knew that the Garlock gasket materials
17 foreseeably could be used on all of these hot machine
18 processes?

19 A My answer is yes.

20 Q You also knew, did you not, that the gasket materials
21 that Garlock was making, though new at the time that
22 you manufactured them, ultimately had a limited life
23 span when they were subjected to the high temperature

1 heats for which they were intended? They would not
2 last forever.

3 A Oh, I know that replacements are needed.

4 Q You would be out of business if they did didn't need
5 some replacements.

6 A I was not a maintenance man.

7 Q I understand, but you knew that the materials
8 ultimately to be replaced with new ones.

9 A That's almost an axiom....

10 Q I agree, and you knew that where there were boilers or
11 turbines that were insulated that not only would the
12 insulation have to be replaced but that the gasket
13 fittings would also have to be replaced.

14 A Nobody ever discussed that with me.

15 Q But you are aware of that?

16 A No, I wasn't aware of it. I wasn't even thinking about
17 it. How could I be aware of it when I didn't know
18 where it was being used?

19 Q What I'm trying to clarify is that you knew that the
20 products, the gasket materials that Garlock was making
21 ultimately would have to be replaced.

22 A Well, you said those words.

23 Q Do you agree with me that --

- 1 A I agree that generally things have to be replaced.
2 There's nothing that we make that's permanent.
- 3 Q Are you aware that once a gasket had been subjected to
4 the intense heat of a boiler --
- 5 A What is intense heat?
- 6 Q I can use a number of 600 pounds pressure upwards.
- 7 A What is the temperature?
- 8 Q 600 degrees upwards.
- 9 A The asbestos would stand that, maybe not the rubber.
- 10 Q Well, that's helpful. Once your gasket material that
11 Garlock made the asbestos containing gaskets, whether
12 it was rubber coated or however it was coated, once it
13 had been subjected to high temperature, there would be
14 some deterioration of the carrier product, am I
15 correct?
- 16 A Probably.
- 17 Q Are you aware as to how mechanics in the field would
18 remove a worn out or burnt out or gasket that needed to
19 be replaced? Are you aware that they would use knives?
- 20 MR. SHANNON: I object now. Richard, you asked him
21 a question, now you're trying to go back and
22 give him the answer.
- 23 MR. GLASSER: I have a right to ask questions as I

1 see fit and you have a right to object.

2 Q Are you aware or did you understand that once gasket
3 materials had been used and subjected to heat and had
4 to be replaced, that workers sometimes would have to
5 scrape or file or cut the gasket from the pipe or
6 turbine --

7 A I might ask you that question. How would you answer
8 it?

9 Q My question for you, Mr. Houghton, is were you aware of
10 how the mechanics installed your product in the field?

11 A No.

12 Q Were you aware of how they removed your products in
13 the field?

14 A No.

15 Q All you were aware of is that ultimately they would
16 need replacement, am I correct?

17 A Placed another order. No, that kind of a question is
18 not -- Most of us aren't concerned with that, then you
19 say am I aware. No I wasn't aware, but I know that
20 we've got a replacement order. That's up to the
21 customer not me.

22 Q I understand, I understand. The point I'm trying to
23 get to, if we can assume that there would be a hazard

1 when the person who went to scrape an asbestos-
2 containing gasket off of a hot pipe had to remove the
3 old gasket so a new one with a good hot seam could be
4 replaced, whose concern was it at the Garlock
5 organization to make sure that the hazard was reduced
6 or that the people who would be remove the asbestos
7 gasket would be advised of the hazard? Whose
8 responsibility was that in the Garlock organization as
9 you remember it?

10 MR. SHANNON: I object to that question because it
11 implies that someone had a specific respon-
12 sibility as you have exactly described it.

13 MR. GLASSER: Then I would amended my question.

14 Q Whose responsibility, if anyone, was that at Garlock?

15 A Not Garlock. How he gets it off there is not Garlock's
16 responsibility and who was it deciding that it was
17 hazardous? If it's hazardous, why wasn't his director
18 ~~taking~~ care of it?

19 MR. SHANNON: He has to ask the questions and you
20 just have to respond.

21 A I'll leave you to think it out.

22 (Whereupon a brief recess was taken.)

23 BY MR. GLASSER: (Continued)

1 Q Mr. Houghton, to your knowledge, did Garlock ever go in
2 and take any dust sample or dust counts of any of its
3 asbestos-containing gasket material after it had been
4 on a hot turbine or boiler for a long period of time
5 for the purpose of determining how much asbestos dust
6 was generated trying to remove and clean the pipe
7 flange?

8 A I, not being in the sales department or where things
9 were used, I couldn't answer that accurately. I don't
10 remember anything like that being done, but as far as
11 any report to me goes --

12 Q Who would be the best person whose available today for
13 me to ask that question to?

14 A I don't know many people over there now. Sit down with
15 Dick Watson and see if he can give you some guidance.
16 He's closely associated with the people over there. He
17 would be able to help you.

18 Q Are you aware in the 1973 time frame of any surveys
19 that were done either at Garlock or made available to
20 Garlock concerning the awareness and attitude towards
21 use of asbestos?

22 A No.

23 Q This has, and I'm showing you a copy and your counsel,

1 a received stamp from Garlock Inc. of June 11, 1973
2 with the stamp of vice president of engineering and
3 it's dated May 10, 1973. Have you ever seen this
4 document or can you identify what that document is?

5 A I've never seen this kind of a report. I don't think
6 there's no occasion or anyone to bring that report to
7 me.

8 Q I'm going to shift questions now to the state of
9 Virginia. Do you know which salesman or sales
10 representatives from Garlock had various or various
11 distributors as their customers?

12 A No.

13 Q Do you know the names of any distributors of Garlock
14 products for the state of Virginia?

15 A No.

16 Q Do you know who at Garlock was in charge of sales to
17 the United States Government?

18 A When was that?

19 Q At any time from 1939 to '79.

20 A Sales, our president was connected with sales and
21 service, that was -- he died -- but he's dead.

22 Q Is that Wes Wright?

23 A What?

1 Q Is that Wes Wright?

2 A Wes --

3 Q Wright?

4 A Oh, Wright? I don't remember that name.

5 Q George Townsend?

6 A Yes, he became president of the company. He was -- he
7 has several jobs here at Garlock. If you could locate
8 him, he could tell you some things.

9 Q Are you aware, Mr. Houghton, that in 1977 a decision
10 was made at Garlock by the product liability committee
11 to put a warning on the asbestos-containing gasket
12 materials?

13 A No, I was not in that phase of the company, so I was
14 not aware of what warnings were being proposed.

15 Q Am I correct that in the field of compressed-gasket
16 sheeting, that Garlock was one of the major
17 manufactures in the United States of compressed-gasket
18 sheeting?

19 A I can't say I was aware of that, but I just by my own
20 judgment, I would say that's probably so. Johns-
21 Manville was a producer of compressed sheet, too, but
22 Garlock probably is a larger producer than
23 Johns-Manville of that item.

1 Q And Nicolet was a producer of that item, also?

2 A Probably, yes.

3 Q Do you have an opinion as to whether Garlock was also
4 larger than Nicolet?

5 A I'm not aware of that, because I don't know how big
6 Nicolet was.

7 Q Have you heard of or had any dealings with Carm Mango?

8 A No.

9 Q Kenneth Bowen?

10 A Don't know the name.

11 Q A Mr. C.C. Whiteside from the Department of Labor?

12 A No.

13 MR. GLASSER: I have no further questions and I want
14 to thank you for being so patient with me.
15 I'm very grateful. They might have some
16 questions for you, but I do want to thank
17 you.

18

19 EXAMINATION BY MR. SHANNON:

20 Q I just have one question. Am I correct that you never
21 did work directly in the making of compressed-asbestos
22 sheet at any time during your career with Garlock?

23 A For about less than two years, I was given the job as--

1 for want of a better name--supervisor of the general
2 packing division, and then after I had been in that,
3 examine covered compressed-asbestos sheet and high-
4 pressure manufacturing, I was moved to the engineering
5 to start missile filament winding, and so I know what
6 they do there, but didn't stay with it very long, but
7 as you work in a plant for 40 years, you begin to get
8 acquainted with the whole works.

9 MR. SHANNON: That's all I have.

10 MR. GLASSER: And I have no further questions.

11 MR. SHANNON: We're going to ask that he read and
12 sign it so we won't have a waiver of
13 signature.

14 This young lady is going to type this
15 up in a little booklet of what we've said
16 today, and she's going to send it to you, and
17 we want you, if you would to be kind enough,
18 to be sure that she has typed it up
19 accurately.

20 THE WITNESS: She will read it to me?

21 MR. SHANNON: Send it to you and you'll read it, and
22 when you've read it, if she's made any
23 mistakes, you'll have a sheet that you can

1 make notes of the mistakes that she may have
2 made. You cannot change your answers, but if
3 she typed something down wrong, you can
4 change that. After you've done that, you
5 need to sign it in the presence of a Notary
6 and have it sent back, and I'm sure Garlock
7 can provide you with a Notary.

8 THE WITNESS: Who would I return it to, Dick Watson?

9 MR. SHANNON: That will be fine, and he can send it
10 back to her.

11 MR. GLASSER: Can you indicate responding for
12 yourself on the record approximately how long
13 it would take for the record to be prepared
14 without any extra charges?

15 THE REPORTER: It depends on if you're going to want
16 me to send your copies out at the same time
17 or if you want me to hold all of them until
18 he sends his back.

19 MR. GLASSER: I would request that you do
20 exactly as you've indicated, namely, to send
21 a copy of the transcript once it's prepared
22 to be sent to Mr. Houghton to me, and I
23 understand Jim Shannon and to Mr. Levinthal

1 at that stage, and then if there are any
2 errata changes that you feel are appropriate,
3 you can send us a copy of the errata sheet
4 once that's returned and perhaps a signed
5 cover sheet, signed by Mr. Houghton so that
6 we'll have an opportunity to review our copy
7 instead of waiting until everything is done
8 at your end.

9
10 . . .

11
12
13
14
15
16
17
18
19
20
21
22 D 03768
23

WITNESS CERTIFICATION

I, GEORGE ELWOOD HOUGHTON, do hereby certify that I have read the transcript of my testimony taken under oath on the 4th day of December, 1986;

that my testimony in the transcript herewith, pages 1 through 109 is a true, complete and correct record of what was asked, answered and said during the deposition;

and that the answers on the record as given by me are true and correct, except for anything duly noted on the attached errata sheet.

GEORGE ELWOOD HOUGHTON

Subscribed and sworn to before me
this ____ day of _____. 1986.

NOTARY PUBLIC

My Commission Expires:

March ___, 19__.

D 03769

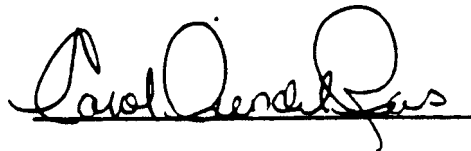
STENOGRAPHER'S CERTIFICATION

I, CAROL PIENDEL RAES, do hereby certify that I am a
Court Reporter in Rochester, Monroe County, New York;

that I reported in Stenotype shorthand the proceedings
held on December 4, 1986 at the home of GEORGE ELWOOD
HOUGHTON, 516 West Main Street, Palmyra, New York in the
matter of William Stacey Overby, Plaintiff versus Garlock
Inc., Defendant;

that the witness, GEORGE ELWOOD HOUGHTON, was duly sworn
by me;

and that the transcript herewith numbered 1 through 109
is a true, accurate and correct record of said shorthand
notes.



CAROL PIENDEL RAES

Dated at Rochester, New York
this 16th day of December, 1986.

E R R A T A S H E E T

Page	Line	
3	4	(and several other places) My middle name is Ellwood.
23	23	Last word should be - their -
29	5	Seventh word should be - solution -
29	6	Seventh word should be - tower -
29	11	Fifth word should be - calender -
29	14	Third and fourth words should be - this was -
33	5	Words seven and eight should be - and hand -
33	6	First word should be - hole -
34	4	Tenth word should be - 64th -
34	5	Sixth word should be - 8th -
34	6	Sixth word should be - an 8th -
35	9	End of sentence should read - packing for power plants.
36	1	Third word should be - calender -
37	2	First word should be - Chrysotile -
42	9	The numeral should be - 7,000's -
42	11	First word should be - have -
45	3	First word should be - departments -
47	10	Second word should be - There -
50	12	Third word should be - identify -
61	23	Seventh word should be - appropriate -
62	13	Eighth word should be - magnifying -
62	14	Last word should be - sample -
63	5	Fifth word should be - had -
63	5	Tenth word should be - had -
63	5	Eleventh word should be deleted.
70	8	Sixth word should be - Hemeon -
70	18	Fourth word should be - detail -
75	1	First word should be - record -
77	1	Fifth word should be - McMullen -
80	6	Believe that third word was - inhalation -
		GEORGE ELLWOOD HOUGHTON
		Dated this _____ day of _____
		_____, 19____.

• • •

||

Green 113

6/5/42

Mr. Brewster

San Francisco

CS

EXHIBIT

HOUGHTON 1

D 03774

When replying refer to 8-F-WGD-292-5-13-14-15-42 and give address of premises affected by this notice

The Garlock Packing Co.,
Division St.,
Palmyra, N. Y.



DEPARTMENT OF LABOR
DIVISION OF INSPECTION
ALBANY

NEW YORK OFFICE, 80 CENTRE ST.

FRIEDA S. MILLER Industrial Commissioner

H Albany, June 4, 1942

You are hereby directed to comply with the following requirements of Chap. 50, Laws of 1921, as amended, in the building located at Division St. - Palmyra - Wayne County now used for manufacturing purposes, of which you are owner and occupant.

Orders explained to F. Armstrong, Safety Inspector.

1. Provide an exhaust system to remove fumes or other impurities from your factory on second floor, created, generated or released by filling bins with powdered materials. File plans and specifications in triplicate for approval as required by Rule 701 and do not install, change or alter any machinery or apparatus for any of the purposes specified herein until plans are approved by the Department. (Specifications and copy of Rule 701 enclosed.) (Bldg. 8 & 15) 30 days
2. Construct and locate hood so that dust from grinding gaskets will fall or be drawn into the hood. (gasket grinding machine - basement - Bldg. 8 & 15)

The above requirements must be complied with in 10 days
IMMEDIATELY, unless otherwise specified herein.

Please address communications to BUREAU OF FACTORY INSPECTION
Form 54. 8-27-41-182M (6-2837) State Office Bldg., Albany, N. Y.

Frieda S. Miller
Industrial Commissioner

D 03775

STATE OF NEW YORK
DEPARTMENT OF LABOR

DIVISION OF INSPECTION
80 Centre Street, New York City

IMPORTANT NOTICE TO EMPLOYERS
RELATIVE TO
COMPLIANCE WITH EXHAUST SYSTEM ORDER

Date June 4, 1942

The Garlock Packing Co.,
Division St.,
Palmyra, N. Y.

The Labor Law and Code rules for the Removal of Dust, Gases and Fumes places the responsibility on the owner of the establishment for compliance with the law and code rules relative to providing, using and maintaining exhaust systems of sufficient capacity and power to remove the dust, gases, fumes, vapors, fibers or other impurities generated or released in the course of the business carried on in any workroom of a factory.

The owner of the factory is required to file for approval specifications and plans in accordance with Industrial Code Rule 701 in triplicate showing both plan and elevation view drawn to scale giving dimensions and sizes before the installation or extension is made, and to show an outline of portion of building where system is to be installed or extended, all posts, columns or structural members extending above floor which are adjacent to any wheels, machines, receptacles or apparatus to be connected to such exhaust system or piping thereof.

If specifications and plans are not submitted for approval by the person or firm to whom the order was issued, they can be submitted by an authorized agent of such person or firm provided there is furnished the Division of Inspection an authentic communication indicating that such agent is authorized to file such specifications and plans for the person or firm to whom the order was issued.

Persons or firms must file specifications and plans before the expiration date of the order, and shall not make any installation or extension of any exhaust system until specifications and plans have been filed with and approved by the Industrial Commissioner. When installations or extensions are made before approval of the specifications and plans by the Industrial Commissioner, they will be at the risk of the person or firm having a violation.

If the system is not in full compliance with the law and code rules, such person or firm is responsible for the violation.

1. All machines (including sweeps) to be attached to the exhaust system are to be shown on plan. Names and sizes of the machines with the floor, basement, yard or other location shown and designated.

2. Fan—Make, size, number or design, R. P. M.—C. F. M. inlet and outlet dimensions to be given. Each fan to be designated under one of the following specifications at the fan—"New Fan," "Second Hand Fan," "Reconditioned Fan."

3. Piping. Full piping to be shown in every case. Double line layout. The size of each pipe section of

D 03776

EXHIBITHoughton 2
12-4-82ASBESTOS TEXTILE INSTITUTE

EXHIBIT

P-299

MINUTES of the General Meeting
held June 19, 1946 at the Warwick
Hotel, Philadelphia, Penna.

IN ATTENDANCE:

GEORGE L. ABBOTT,
The Carlock Packing Co.

GEORGE W. MARSHALL, JR.
Raybestos-Manhattan, Inc.

HOWARD T. BAIN,
Johns-Manville Corp.

F. SLS McGRATH,
Cadwalader, Wickersham & Taft

J. A. BETTES,
Raybestos-Manhattan, Inc.

ERNEST MUEFLOCK,
Keasbey & Mattison

J. F. BURKE,
J. Franklin Burke & Co.

E. R. TEUBNER, JR.
Philadelphia Asbestos Co.

C. H. CARLOUCH,
Carolina Asbestos Co.

FRANK J. WAKEM,
Johns-Manville Corp.

S. V. DILLON,
Johns-Manville Corp.

J. M. WEAVER,
Raybestos-Manhattan, Inc.

GEORGE S. FABEL,
Southern Asbestos Co.

D. W. WIDMAYER,
Keasbey & Mattison

HARRIS D. MCKINNEY,
Institute Manager

NO. 1

The President called the meeting to order and the Manager read the minutes of the General Meeting of April 4th. The minutes were approved as read by unanimous vote. The President then read the auditor's report and the Treasurer's report. Mr. Marshall moved that these reports be approved as read, seconded by Mr. Fabel and approved unanimously.

NO. 2

D 03777

The Manager presented a brief outline of the activities of his office during the last quarter. These included the notification to members and non-members on O.P.A removal of ceiling prices, distribution of Carlock Dust Control System report, correspondence with non-members regarding Manager's Summary Report, record of activities in gathering news for publicity items and his work with the various

committees. Mr. Muchlock moved that the Manager's report be approved as presented. Motion seconded by Mr. Fabel and approved unanimously.

NO. 3

The President brought up the matter of keeping non-member companies informed on Institute activities. Discussion was held and it was recommended that the Manager send copies of the minutes of this meeting, with accompanying committee reports, to the following non-member companies. It was also unanimously agreed that representatives of these companies be invited to attend the next General Meeting of the A.T.I.:

ASBESTOS MANUFACTURING COMPANY
ASTEN-HILL MANUFACTURING CO.
FIBRE & METALS COMPANY
GREENE-TWEED COMPANY
U. S. RUBBER COMPANY

NO. 4

The matter of publicity news releases was discussed and Mr. Marshall suggested that each member company furnish the Manager with a specially-selected list of about 10 representative buyers and/or users of textiles, so that the Manager can contact them with a view to obtaining information for news items on new products, new uses, etc. This suggestion met with full approval and the Manager will write to each member company regarding the required list.

NO. 5

Mr. Weaver, Chairman of the Technical Committee, presented a report on recent activities of his Committee. (copy attached). It was the recommendation of the Technical Committee that the Institute establish a Fellowship at Rutgers College, and to consider Dr. Myril C. Shaw as head of the activity. Mr. Fabel moved that we appropriate a sum of \$15,000. a year, for two years, to set up an Asbestos Fellowship as recommended by the Technical Committee. This motion was seconded and

passed by all companies present.

It was understood that this Fellowship would operate under the Technical Committee who would be responsible for its supervision and guidance. Furthermore, the record of the man recommended in the Technical Committee report to head this Fellowship, Dr. Myril C. Shaw, met with the approval of the group, but the full responsibility for selecting a man to head the Fellowship was assigned to the Technical Committee.

The President pointed out that the Constitution calls for a vote by all member companies on matters relating to special assessments. It was therefore recommended that the Manager get in touch with the two absent member companies (Asbestos Textile Company and Union Asbestos & Rubber Company) at an early date, for purpose of obtaining their approval of the Fellowship program.

NO. 6

Mr. Bain, Chairman of the Sales Promotion Committee, presented his report on recent activities. (copy attached). Mr. Bain stated that the "Primer" is now in production and that cost estimates obtained for preparing and printing this job are well within the approved figure. However, these cost estimates do not include any mailing or distribution expense that might be involved.

The matter of news releases was again brought up for discussion and it was agreed that some general publicity could be gained by sending releases about Institute General and Committee meetings, to publication in the textile field and to "Asbestos" magazines. The Manager will accordingly do so.

The Manager then presented revised layouts and copy for the space advertising program. Open discussion was held on these layouts and approval was voiced informal. It was agreed that details in the space advertising program should be handled through the Sales Promotion Committee. It was also agreed that the currently-

planned space advertising should include a "definition" of the Institute based on that given in the Constitution. The following wording met with approval: "The Asbestos Textile Institute is a voluntary, non-profit organization formed to render service to buyers and users of asbestos textiles."

Mr. Muehleck moved that the Sales Promotion Committee report be approved as read. Motion seconded by Mr. Fabel and unanimously approved.

NO. 7

In the absence of Mr. Luttenberger, Chairman of the Fibre Improvement Committee, Mr. Marshall presented the Committee report. (copy attached)

Since all members who requested trial lots of fibre from the Canadian Producers have not as yet sent their reports to the Manager's office, the President suggested that they do so as soon as possible.

The many shortcomings of the shaker box method of evaluating spinning fibres were discussed and Mr. Luttenberger suggested that this matter of purchasing test equipment be referred back to his Committee for further consideration. It was suggested that a development of test methods would be a worthy subject for study by the Fellowship.

Mr. Marshall moved that after Mr. Luttenberger makes his report on the special fibre from the Canadian producers, that another Q.A.P.A. - A.T.I. Joint Committee meeting be arranged. Motion seconded and unanimously approved. The Manager will make the arrangements for this meeting at the required time.

NO. 8

Mr. Muehleck, Chairman of the Dust Control Committee, presented a report of his Committee. (copy attached), including numerous findings and recommendations.

Mr. Fabel presented the tentative plan for an A.T.I. central medical department, as prepared by Dr. Vestal. It was agreed that this plan should be turned over to the Dust Control Committee for action, but that in the meantime, copies of the plan should be distributed to all member companies.

The recommendation of the Dust Control Committee to incorporate damp weaving wherever feasible was brought up for discussion. Mr. Bettes gave his reactions from the Sales standpoint, general discussion followed, but no decisions were reached.

NO. 9

The President complimented all Committee Chairmen on the excellent work of their Committees, and it was unanimously agreed that a great deal of worthwhile work is being capably handled by these Committees. Mr. Waken moved that, in order to express the appreciation of the member companies for the good work, the Manager be asked to send copies of all minutes of Institute meetings to all members of the committees. Motion unanimously approved.

NO. 10

It was unanimously agreed that the next meeting of the Institute should be held in Hershey, Pennsylvania at the Hotel Hershey on Friday, September 27, 1946.

NO. 11

There being no further business before the meeting, adjournment was moved, seconded and unanimously approved.

HARRIS D. MCKINNEY
Institute Manager

EXHIBITHOUGHTON
12-4-86

3

ASBESTOS TEXTILE INSTITUTE

EXHIBIT

P. 297

MINUTES of the Dust Control
Committee meeting held Wednesday,
March 13, 1946 at the Engineers
Club, Philadelphia, Pa.

IN ATTENDANCE:

C. H. Carlough
CAROLINA ASBESTOS CO.

G. S. Fabel
SOUTHERN ASBESTOS CO.

T. S. Sadler
CAROLINA ASBESTOS CO.

A. J. Scanlon
PHILADELPHIA ASBESTOS CO.

Phil Cannon
JOHNS-MANVILLE CORP.

John Weber
PHILADELPHIA ASBESTOS CO.

Fred Armstrong
JOHNS-MANVILLE CORP.

Harris D. McKinney
INSTITUTE MANAGER

Ernest Muehleck
KEASBEY & MATTISON

NO. 1

The meeting was called to order by Temporary Chairman, Ernest Muehleck. It was moved by Mr. Fable and seconded by Mr. Cannon that Mr. Muehleck be elected Chairman of the Dust Control Committee. Motion unanimously passed.

NO. 2

Using the agenda prepared by Mr. Muehleck as a guide, the matter of various methods used in determining the amount of dust present in the atmosphere was brought up for discussion. Mr. Muehleck described the Bausch & Lomb dust counter, its costs, etc. and open discussion was held on methods used by other member companies. Mr. Muehleck suggested that each member company send a report to the Committee Chairman covering their dust count procedures, as well as their State and Insurance Company regulations and standards. This suggestion was acceptable to all present.

NO. 3

Discussion was held on means of protection for employees engaged in the emptying of asbestos fibre bags as received from the mines. Various types of respirators were

discussed, and it was suggested that all member companies send to the Committee Chairman a report on their experience with different types of respirators.

The use of X-Rays as a means of analyzing lung conditions of employees was also discussed in detail. It was agreed by all that a pre-employment examination is important and further protection to the employee could be given by means of X-Rays throughout the year. Mr. Muehleck offered to furnish to the Manager the name of the Keasbey & Mattison doctor who is a specialist in X-Ray reading. He also agreed to send to the Manager several form letters which the K & M doctor uses in notifying employees whose working conditions should be changed.

NO. 4

Dust control in the fibre preparation room was covered in a report by Mr. Muehleck. His recommendation of the use of Sun Oil Company's No. 538 asbestos fibre conditioning oil was discussed in detail.

NO. 5

The problem of reduction of dust at the carding engines was then discussed. Mr. McKinney presented a report from the Garlock Packing Company relative to their dust control system. Since this report seemed to be of considerable interest to all present, it was suggested that the Manager secure the permission of the Garlock Packing Company to have this report copied and circulated to the member companies of the Institute.

NO. 6

Before analyzing the remaining problems of this Dust Control Committee, Mr. Armstrong suggested that an outline be made of the objectives at hand. Reviewing the points discussed, it was agreed that the following points were worthy of initial consideration by this Committee:

EXHIBIT

ASBESTOS TEXTILE INSTITUTE

EXHIBIT
P-298

Houghton 4
12-4-86

MINUTES of the meeting of the
Sub-Committee of the Dust Control
Committee held June 13, 1946 at
the Engineers' Club, Phila., Pa.

IN ATTENDANCE:

ERNEST MUEHLECK, Chairman
Kearney & Mattison Co.

B. W. LUTTENBERGER,
Raybestos-Manhattan, Inc.

F. J. ARMSTRONG,
Johns-Manville Corp.

J. G. TYSON,
Philadelphia Asbestos Co.

P. D. CANNON,
Johns-Manville Corp.

HARRIS D. MCKINNEY
Institute Manager

The Chairman opened the meeting by outlining the assignment of the Sub-Committee, stating that it was their responsibility to analyze the letters and reports from the various member companies wherein they gave facts on dust determination and control procedures in their respective plants. Copies of the letters and reports from member companies were given to all those present. These were read and then open discussion was held on the various procedures. Comments and recommendations were made as follows:

1. (A) The letters and reports clearly indicated the importance of the dust control problem to all member companies, and the need for immediate cooperative action.
- (B) At present, there is wide variance in individual company procedures for measuring, exhausting and collecting asbestos dust.
- (C) It is the recommendation of the Dust Control Committee that contact be made immediately with the proper Health Departments or officials of . . .
 - (1) The U. S. Federal Government
 - (2) The States wherein member plants are located
 - (3) The Mellon Institute
 - (4) The Metropolitan Life Insurance Co.

0 03784

. . . for purposes of preparing a tentative program aimed at bringing to member companies the assistance of qualified technical and medical counsel.

(D) The committee also recommends that, pending the preparation of such a plan, the following points be considered:

(1) Pre-employment and periodical chest X-Rays to be made, analyzed and reported upon by a reputable Roentgenologist.

(2) The method of dust count determination to be used by the member companies, or their outside consultants, should be the standard Greenburg-Smith Impinger method as described in "The Impinger Dust Sampling Apparatus" as used by the U. S. Public Health Service, Public Health Reports, 3/18/ Vol. 47, No. 12, Government Printing Office, Washington, D. C. The method is also described in detail in the "Analytical Chemistry of Industrial Poisons, Hazards, and Solvents" by Morris B. Jacobs (1944), Interscience Publishers, Inc., New York City. On page 114, Jacobs states "The Greenburg-Smith Impinger is the standard instrument in the U. S. for the collection of dusts". He quotes the American Public Health Association Yearbook, 1930-40, page 92, as an authority for this statement.

(3) In the analysis of the exposures, it is important to determine as accurately as possible, the following:

(a) the amount of dust in the air from the various industrial operations (this to be expressed in terms of millions of particles per cu. ft. of air sampled)

- (b) the size of dust particles measured microscopically;
- (c) the mineralogical composition of dust with particular reference to quartz content and designated as the percent of free silica or quartz. (NOTE: a description of the method of determination under (a) and (b) above is covered in the attached copy of letter from J. W. Fehnel, Director of Industrial Hygiene Laboratory and Field Service.)

2. The Committee further recommends that the problem of asbestos dust be considered at its source, i.e., by the reduction of dust through dampening of yarn, in weaving and braiding operations. Every effort should be made by the Management of each firm to convince the Sales Divisions of the necessity, economy and health advantages that would result thereby. It was generally agreed that many of the present sales objections to moisture-controlled products really have no foundation.

3. Mr. Cannon said that he would obtain for testing in the Johns-Manville Corp. plant, every type of respirator mentioned in the member company reports, and at a later date would report thereon to the Committee.

There being no further business before the meeting, motion for adjournment was moved, seconded and passed.

ERNEST MUEHLECK,
Chairman

NOTE:

Exhibit 5 consists of 28 pages of the Hemeon Report, June 18, 1947, plus July 11, 1947 supplements pertaining to particular plants as follows:

- A. U.S. Asbestos (Manheim) Plant of Raybestos-Manhattan, Inc.
- B. General Asbestos & Rubber Plant of Raybestos-Manhattan, Inc.
- C. Plant of Philadelphia Asbestos Company
- D. Plant of Keesbey & Mattison Company
- E. Plant of Carolina Asbestos Company
- F. Plant of Southern Asbestos Company
- G. Plant of The Garlock Packing Company
- H. Plant of Union Asbestos & Rubber Company
- I. Plant of J. F. Burke and Company
- J. Plant of Johns-Manville Corporation

EXHIBIT

Houghton
12-4-56

6

PLAINTIFF'S
EXHIBIT

1-348

MINUTES of the General Meeting of
the Asbestos Textile Institute held
March 6, 1956 in Philadelphia, Pa.

IN ATTENDANCE:

F. J. Waken, President
JOHNS-MANVILLE CORP.

AMERICAN ASBESTOS TEXTILE CORP.
J. W. Weber

ASTEN-HILL MANUFACTURING CO.
D. R. Holmes

JOHNS-MANVILLE CORP.
W. C. Seeds
E. A. Schuman
K. Q. Beyard
E. H. Wells
W. S. Hough
H. H. Jackson

KEASBEY & MATTHEWSON CO.
C. R. Frederick
R. L. Lanz
A. E. Whitfield
D. W. Widmayer

RAYBESTOS-MANHATTAN, INC.
J. A. Bettes
J. A. Brown
H. W. Oliver
R. B. Smith

SOUTHERN ASBESTOS CO.
J. T. Griffis
G. J. Harris
R. S. Fulse

CASSIAR ASBESTOS CORPORATION, LTD.
T. T. Tigert

CALWALADER, WICKERSHAM & TAFT
M. I. Ruddock

ASBESTOS TEXTILE INSTITUTE
H. C. Shaw

Guests:

ASBESTOS TEXTILE COMPANY
Frank Gatke

CARLOCK PACKING COMPANY
G. E. Houghton

D 03788

1. The meeting was called to order by President Waken and an address of welcome extended to all of the members present. Recognition and welcome was also extended to representatives of two former member companies who attended the meeting of the Air Hygiene Committee held March 7 and were also in attendance at this meeting, namely, Mr. G. E. Houghton, Carlock Packing Company, and Mr. Frank Gatke, Asbestos Textile Company.
2. The Minutes of the last meeting of the Institute were presented for reading, however, since all members had received copies of these minutes and were familiar with the actions there taken, it was moved by J. A. Bettes, seconded by D. R. Holmes and unanimously agreed that the reading of the minutes be omitted at this time.
3. The Treasurer's report was read by the Secretary in the absence of J. G. Schoepf, Treasurer. Following a discussion of the contents of this report, it was moved by D. W. Widmayer, seconded by J. A. Bettes and unanimously agreed that the report be accepted.

Secretary announced that the next General Meeting of the Institute would be

meetings were being made by the President and Secretary. As soon as the Secretary can ascertain the number of members who will attend this meeting, this information will be turned over to President Waken who will in turn endeavor to carry the plans forward with some assistance of the traffic department at Johns-Manville Corp.

Since it is unlikely that the full membership will be able to attend these meetings, it is now planned to hold the committee meetings normally held on the day preceeding the General meeting in New York on the day preceeding the Thatford meetings. The results of any actions taken at the committee meetings will be reported at the Thatford meetings by the Chairman of the respective committees.

D 03789

6. The next report was presented by D. R. Holmes, Chairman of the Air Hygiene Committee. The considerations of this committee in session on March 7 were fully discussed and the specific actions there taken were noted. The comments of Dr. Smith, Johns-Manville Corp., related to the report issued by Dr. Hueper on a subject relating asbestosis with lung and heart diseases was discussed at great length. This latter matter earlier received attention by the Board of Governors and it was announced that this body had appropriated sufficient funds to initiate a preliminary survey to investigate the possibility of more concerted action designed to refute the work of Dr. Hueper. The full report for this committee is attached as a part of the minutes of this meeting.
7. The Sales Promotion Committee report was presented by J. T. Griffis, Chairman. It was reported that this committee has been actively engaged in efforts designed to promote the dissemination of information designed to enlighten and educate the consumer of asbestos textile products regarding their unique characteristics and applications. The placement of Visual Aid Displays and plans for the development of the new asbestos textile exhibit were fully discussed.

In an effort to speed up the development of the new exhibit it was agreed that a part of the necessary funds for its construction should be made available at this time. It was moved by D. W. Widmayer, seconded by D. R. Holmes and unanimously agreed that a sum of \$4000.00 be transferred from the General Fund

of the Institute to the Publicity Fund for this work. It was further agreed that there should be a refund of \$4000.00 from the Publicity Fund to the General Fund upon completion of necessary assessments required to cover this project.

The full report covering the activities of this committee is attached as a part of the Minutes of this meeting.

8. The report for the Technical Committee was presented by H. W. Oliver, Chairman of that Committee. The work of this committee now covers a wide range of technical problems related to constructions for cloth, tape and braid and test methods for textiles including 1) a standard heat aging test and 2) fiber dimension evaluations.

The full report, as presented, is attached as a part of the Minutes of this meeting.

9. The Fellowship Report was presented by Dr. Shaw and is attached as part of the Minutes of this meeting. Much interest is presently being evidenced in the elevated temperature serviceability characteristics of asbestos textiles and the necessity for a standard test method is becoming ever more apparent. The Fellowship report includes work along these lines and a new technique known as dynamic testing has been here introduced for consideration. It is felt that this new approach in elevated temperature studies will provide further significant information.
10. During the course of the meeting, Mr. D. W. Widmayer announced that Mr. C. R. Frederick was being transferred from the textile division of Keasbey & Mattison Company to another division of that company and that Mr. R. L. Lenz would hereafter represent that Company on the Technical Committee. Expressions of gratitude were extended to Mr. Frederick by President Waken, Mr. Oliver and Dr. Shaw for the continued interest and many contributions he has made during his long and active participation as a member of the Institute, a period extending from the date of founding of the Institute in 1946.
11. There being no further business to come before this meeting it was moved by D. W. Widmayer, seconded by R. S. Hulse and unanimously agreed that the meeting be adjourned.

Kyril C. Shaw,
Secretary

Asbestos, Pa.
March 5, 1956

Mr. J. G. Schoepf
Asbestos Textile Institute

Dear Mr. Schoepf:

In compliance with your request, examination was made of the books and records of the Asbestos Textile Institute under Dr. H. C. Shaw's supervision on Friday, March 2, 1956. The audit covers the period from December 3, 1955 to March 2, 1956 inclusive.

The Balance Sheet of the Asbestos Textile Institute at March 2, 1956 is set forth below:

ASSETS

Total Cash in Bank (Schedule A)	\$ 16,033.41
Total Cash on Hand	90.33
Postage on Hand	2.40
* Furniture & Equipment (nominal value)	1.00
	<u>\$ 16,127.14</u>

LIABILITIES

Social Security & Withholding Taxes	\$ 27.25
New Worth	16,099.89
	<u>\$ 16,127.14</u>

* Other Asset items not included in above classification are shown in Schedule B.

The latest statement received from the depository (Chase-Manhattan Bank of New York) in which all funds of the Institute are kept, shows a balance of \$13,454.06 on January 31, 1956. The Petty Cash Fund totalling \$100.00 includes \$90.33 in cash and \$9.67 in vouchers. This fund was verified by actual count.

Schedule A: Showing a reconciliation of the Bank Balance at March 2, 1956:

Bank Balance per Latest Statement, January 31, 1956	\$ 13,454.06
Add: Bank Deposit of February 1956	5,141.91
	<u>\$ 18,595.97</u>
Less: Checks Drawn Subsequent to	

<u>Check No.</u>	<u>Date</u>	<u>Payee</u>	<u>Amount</u>
1050	1/30/56	Willora Company	\$ 1,175.00
1052	1/30/56	A.S.T.M.	5.00
1053	2/1/56	H. H. Laurence	4.70
1054	2/2/56	Petty Cash	85.58
1055	2/2/56	J. J. Cogan	9.00
1056	2/10/56	Philadelphia Textile Institute	15.43
1067	2/18/56	A. H. Thomas Company	17.19
1058	2/29/56	H. C. Shaw	896.80
1069	3/1/56	Pennsylvania Company	199.36
1070	3/1/56	H. C. Shaw	22.58
1071	3/1/56	Petty Cash	88.03

0 03791

Books numbered 1029 to 1043 inclusive, which were outstanding at the last audit were examined and found to be in order. Bank deposits during this period totalled \$5,141.91 and were credited to General Fund.

A reimbursement transfer in the amount of \$305.53 was made from the General Fund to the Petty Cash Fund.

Schedule B: Other Assets of Asbestos Textile Institute:

<u>Item</u>	<u>Quantity</u>	<u>Description</u>	<u>Date Acquired</u>	<u>Purchase Cost</u>
(a)	7	Visual Aid Display Cases	January 1950	\$ 3,411.32
(b)	1	Suter Tensile Tester	August 1947	726.00
(c)	1	Heat Aging Furnace	April 1951	849.98
(d)	1	Bausch & Lomb Triple Purpose Micro-Projector	May 1954	94.00
(e)	1	Brabender Moisture Tester	September 1954	765.00
(f)	1	Federal Thickness Gage	January 1947	50.50
(g)	1	Mapes Magnetic Analyser	April 1953	100.00
(h)	1	Scott Twist Tester	December 1947	126.50
(i)	1	Abradorflex	December 1947	500.00
(j)	Office Furniture & Equipment:			
	4	Steel Work Benches	September 1954	
	1	Steel Flat Top Desk	" "	
	1	Steel Table	" "	
	1	Swivel Chair	" "	
	1	Straight Chair	" "	
	1	4 Drawer Steel Legal File	" "	
	2	Steel Storage Cabinets	" "	
	5	Steel Book Case Units	" "	
	1	Wall Clock	" "	
	1	Waste Basket	" "	757.50
(k)	1	Temco Huffleover & Control	October 1954	161.00
(l)	1	Cenco Balance	October 1954	32.25
(m)	1	Electric Stopclock	October 1954	50.00
(n)	1	Abradorflex	January 1956	<u>1,175.00</u>
		TOTAL		<u>8,802.05</u>

Yours very truly,

S. C. Gekman, Auditor

ASBESTOS TEXTILE INSTITUTE
Treasurer's Report
March 2, 1956

Balance in Various Funds - December 2, 1955:

Fellowship Fund	\$ 9,260.27	
General Fund	5,694.36	
Petty Cash Fund	3.47	
Petty Cash "A" Fund	58.50	\$ 15,016.60

Receipts:

Assessments:

Fellowship Fund	\$ 4,142.16	
General Fund	2,999.75	\$ 7,141.91

Transfers:

To Petty Cash (From General Fund)	\$ 305.53	\$ 305.53
		\$ 22,464.04

Disbursements:

Fellowship Fund:

Fellowship Salary	\$ 2,377.81	
Laboratory Expense	17.19	
Amer. Soc. Test. Mat.	26.00	\$ 2,421.00

General Fund:

Secretary's Salary	764.55	
Secretary's Travel	45.62	
Stenographic Expense	116.00	
Meeting Expense	594.65	
Legal Expense	507.87	
Auditing Expense	3.00	
Visual Aid Expense	22.16	
Abradoflax Expense	1,175.00	
Petty Cash Transfers	305.53	
Misc. Office Expense	107.74	\$ 3,642.13

Petty Cash Fund:

Misc. Office Expense	\$ 85.17	
Laboratory Assistance	192.00	\$ 277.17
		\$ 6,340.30

Balance on Hand - March 2, 1956		\$ 16,123.74
---------------------------------	--	--------------

Balance in Various Funds - March 2, 1956:

Fellowship Fund	\$ 10,981.43	
General Fund	5,051.98	
Petty Cash Fund	90.33	\$ 16,123.74

D 03793

Respectfully submitted

EXHIBIT

HOUGHTON 7
12-4-86

MINUTES of the Meeting of the Board of Governors of the Asbestos Textile Institute held March 7, 1956 in Philadelphia, Pa.

IN ATTENDANCE:

Z. J. Waken, President
JOHN-MANVILLE CORP.



ASBESTOS TEXTILE CORP.,
A. J. Scardin

RAYBESTOS-MANHATTAN, INC.
J. A. Batten

ASTEN-HILL MANUFACTURING CO.,
D. R. Holmes

SOUTHERN ASBESTOS CO.,
D. S. Eulas

KESSEY & HATTISON CO.,
A. E. Whitfield

CADWALADER, WICKERSEN & TIFT
N. I. Riddick

ASBESTOS TEXTILE INSTITUTE
H. C. Shaw

D 03794

1. The meeting was called to order by President Waken and recognition was extended to Mr. J. A. Batten representing Mr. C. W. Marshall, Jr., Raybestos-Manhattan, Inc.; Mr. D. R. Holmes representing Mr. J. G. Schoepf, Asten-Hill Mfg. Co.; and Mr. A. E. Whitfield representing D. W. Widenayer, Kessey & Hattison Co.
2. The first segment of the meeting was devoted to the presentation of committee reports.

a) The Air Hygiene Committee report was presented by two representatives from that committee, Dr. Kenneth Smith and Mr. D. R. Holmes, Chairman of the Committee. Dr. Smith addressed the meeting first with remarks directing attention to a report issued by Dr. Kasper titled "Public Health Monograph #36, A quest into the environmental causes of Cancer of the Lung". Much of the information set forth in this report is unsubstantiated and is in variance with established understanding and knowledge of informed men in the medical profession. However, this article is apparently assumed to be the only authentic treatise today available which may be used as a reference for court action involving asbestosis and its relationship to heart disease and lung cancer. Dr. Smith strongly recommended that the Institute initiate a program of investigation and publicity to counteract the unfavorable publicity presently directed to the asbestos industries as a result of the work of Dr. Kasper. It was recommended that the Industrial Air Hygiene Foundation be engaged to collect the necessary information and to publicize the results so obtained.

As a result of these recommendations, it was moved by D. R. Holmes, seconded by A. E. Whitfield and unanimously agreed that the Industrial Air Hygiene Foundation be engaged to collect the necessary information and to publicize the results so obtained.

D. H. Holmes presented the report for the Mr. H. Jones Committee, presenting the results of discussions pursued during the course of the committee meeting held earlier on this date. The full report covering these remarks is attached as a part of the minutes of the General meeting.

b) The Sales Promotion Committee report was presented by J. T. Griffin, Chairman of that Committee. The meeting of this committee held earlier on this date was devoted to discussions related to a variety of subjects concerned with advancing attention and interest in the products of the asbestos textile industry. Action was taken directing the permanent placement of a Visual Aid Display at Lowell Textile Institute and a temporary placement at Massachusetts Institute of Technology. Also, plans were further advanced for the construction of the new display which has been under consideration by the Institute for the past year.

The committee also considered the report presented by Dr. Shaw related to efforts that were made during the past months to endeavor to arrest the marketing of certain ironing board covers, the sales of which are promoted through a misrepresentation as to the asbestos content of the covers. Efforts by the Institute to interest the Federal Trade Commission in this matter have not, to date, been successful and the matter was referred to Mr. Euddock and Dr. Shaw for further consideration.

The Technical Committee, through its Chairman, Mr. H. W. Oliver, sought the assistance of the Sales Promotion Committee in its endeavor to establish a standard heat aging test for asbestos textiles. In light of related work being conducted by the Fellow it was agreed that action in this regard should be deferred until the Fellowship investigations can provide a basis for some more definite conclusions.

The full report covering the activities of the Sales Promotion Committee is attached as a part of the minutes of the General Meeting.

c) The Technical Committee report was presented by H. W. Oliver, Chairman of that Committee. The work of the several task groups assigned problems related to cloth, braid and tape were discussed and the results of these endeavors set forth. The complete report covering the activities of this committee is attached as a part of the minutes of the General meeting.

3. Following the committee reports, the regular agenda for the meeting was undertaken. The first subject introduced was the Treasurer's Report and following a discussion of the matters here presented it was moved by A. E. Whitfield, seconded by J. A. Bates and unanimously agreed that the report be recommended for approval at the General meeting.
4. The President announced that the next General meeting of the Institute would be held at Thetford Mines, Canada, on June 6 and 7, 1956. A discussion followed concerning this meeting and it was agreed that the Secretary should direct a questionnaire to each member of the Board of Governors in an effort to ascertain how many members of the Institute would attend this meeting. Following the accumulation of this information, it is to be turned over to the President who will endeavor to establish the proper meeting facilities in the Thetford area and travel accommodations for the group.

p2 - Ellwood

pick up at p63

p23, l23 there (2nd occurrence) should be their

²⁸
p29 l5 shaming? solution

l6 towel to tower

l11 colander to Calendai ^{Calender}

l14 There was

p33 l5-6 hand hole

p34 l4 a 64TH

l ~~4~~ 5-6 am 8TH

p35 for ^{making} steam packing for power plants.

~~p36~~ l31 Chrysalis p36 l1 - Calender

p37 l2 chrysalis

p42 l11 have a good - or give a good

p45 l3 - department (plural) ~~p44~~ - There was

p50 l12 identify ~~p49, l10~~ Ch 3 - pages 3+4 ^{missing}

~~p60~~ ⁴ carding machines

p61 - we have no knowledge of
the 1946 report referred
to - "Green documents" ??

p61 l23 - appropriate

p62 l13 magnifying device?

p63 l5 at hand - it had two ---

p63 l14 carding? sampling or sample

p70 l8 Hemmer (not Hemmer)

p70 l18 detail

p75 l1 work record

p77 li - Mc Mullen

p80 l6 - inhalation ? Glaser question
p84 l10 moment

p87 l9 bone fide

p89 l15 - I can't give - - - -
l118 - years have gone by

p92 l16 Sudakar Dixit Check spelling

p94 l4 he ? - we ~~the~~ ?

p95 l13 Shergarha check spelling

p96 l7, l13 Camille

p96 l4, l16 Tyndall ? John - Birt physicist 19th c

p97 l12 when you say - - -

p99 l1 intended

p99 l7 materials were

p104 l6 arg? occasion for anyone - -

p105 l17 manufacturers
l7 he had several

p107 - l118 examine doesn't make sense - don't know what said

p79 l1-4 - a question is - should answer
be "yes" - meaning
that Glaser is correct

RECEIVED
GARLOCK

JUL 8 1988

LAW DEPARTMENT
- R.W.W. /

IN THE CIRCUIT COURT
FOR THE THIRD JUDICIAL CIRCUIT
MADISON COUNTY, ILLINOIS

IN RE: ASBESTOS LITIGATION
CASES FILED BY BARON & BUDD

Plaintiffs,

-vs-

A. P. GREEN, ET AL.,

Defendants.

Deposition of G. ELLWOOD HOUGHTON held at the
Sheraton Hotel, 125 North Main Street, Newark, New York on
the 9th day of June, 1988.

APPEARANCES:

BARON & BUDD, ESQS.
Attorneys for Plaintiffs
BY: FREDERICK M. BARON, ESQ.
and LISA A. BLUE, Ph.D., ESQ.
8333 Douglas Avenue
Dallas, Texas 75225

BROWN, JAMES & RABBITT, ESQS.
Attorneys for Defendant Crane Packing
Company
BY: A. J. BRONSKY, ESQ.,
705 Olive Suite 1100
St. Louis, Missouri 63101

CHURCHILL & MC DONNELL, ESQS.
Attorneys for Defendant Combustion
Engineering Incorporated
BY: BENJAMIN N. HEWITT, ESQ.,
525 West Main Street
Suite 125
Belleville, Illinois 62220

1
2 GOLDFEIN & JOSEPH, ESQS.
3 Attorneys for Defendant Garlock
4 Incorporated
5 BY: BERNARD L. LEVINthal, ESQ.
6 Packard Building, 17th Floor
7 15th & Chestnut Streets
8 Philadelphia, PA 19102

6 GUNDLACH, LEE, EGGMANN, BOYLE &
7 ROESSLER, ESQS.
8 Attorneys for Defendant 3M
9 BY: RICHARD E. BOYLE, ESQ.
10 5000 West Main Street
11 Box 692
12 Belleville, Illinois 62222

10 HEYL, ROYSTER, VOELKER & ALLEN, ESQS.
11 Attorneys for Defendant Wellington
12 BY: BARRY S. NOELTNER, ESQ., and
13 ROBERT H. SHULTZ, JR., ESQ.
14 17 Ginger Creek Meadows
15 Edwardsville, Illinois 62025

14 REED, ARMSTRONG, GORMAN AND
15 COFFEY, ESQS.
16 Attorneys for Defendant
17 Harbison-Walker Refractory Co.
18 BY: STEVEN M. AROESTY, ESQ.
19 507 National Bank Building
20 P.O. Box 467
21 Edwardsville, Illinois 62025

18 SKELTON, TAINTOR & ABBOTT, ESQS.
19 Attorneys for Defendant H. K. Porter,
20 Incorporated
21 BY: CHARLES H. ABBOTT, ESQ.
22 95 Main Street
23 P.O. Box 3200
24 Auburn, Maine 04210

22 **ALSO PRESENT:**

22 HELEN M. ZORNOW
23 G. Ellwood Houghton's nurse

24 **REPORTED BY:**

24 SUSAN M. ANDOLINO
25

D 03799

TIRO REPORTING SERVICE

I N D E X

<u>Witness</u>	<u>Page Number</u>
G. Ellwood Houghton	
by Mr. Baron	3-30
by Mr. Levinthal	30-34

E X H I B I T S

<u>Exhibit Number</u>	<u>Page Number</u>
Plaintiff's Exhibit 1	13
Defendant's Exhibit 1	35

1
2 MR. BARON: The stipulations
3 that I understand that we are entering
4 into is all objections except as to
5 form are reserved;

6 And that further the
7 deposition is being noticed for
8 evidentiary purposes and cases in which
9 the notices have already gone out.

10 There are cases pending in
11 several jurisdictions, as I understand
12 it.

13 MR. LEVINTHAL: That's
14 likewise my understanding of the
15 stipulations.

16 I would ask that the record
17 reflect that also present is Helen
18 Zornow, who is Mr. Houghton's nurse,
19 who is present with him.

20 MR. SHULTZ: Let me say as
21 far as my involvement here on behalf of
22 Wellington, who have been named the
23 Greco lead case in Madison County, it's
24 my understanding that's the only case
25 that has been noticed. I don't have

the list of the defendants with me, but that's who appears here.

MR. BARON: It's all of the cases in Madison County --

MR. SCHULTZ: Then we have a difference of opinion. It's in the notice, in the Greco case and that's my understanding as to how the case is, which is under those -- as to those defendants who have been noticed in your group of cases, the Greco file.

* * * * *

G. E L L W O O D H O U G H T O N, called herein as a witness, being duly sworn, testified as follows:

EXAMINATION BY MR. BARON:

Q. Mr. Houghton, my name is Fred Baron. Could you hear me okay, sir?

A. - Very well.

Q. If I am talking too loudly or too softly let me know; all right, sir?

A. I will do that.

Q. Mr. Houghton, first if you would state your name for the court reporter?

A. G. Ellwood Houghton, H-O-U-G-H-T-O-N.

Q. And you pronounce it Houghton rather than Hoeghton? (Phonetic)

A. Yes.

Q. Mr. Houghton, can you tell us your date of birth first, please?

A. October 22, 1905.

Q. So that makes you older than me.

A. I'm 82. Some say going on 83.

Q. Mr. Houghton, where do you live now?

A. I live in Palmyra.

Q. Okay. Mr. Houghton, you have had your deposition taken at least once before, have you not, sir?

A. Yes.

Q. So you are generally familiar with the process, you understand what a deposition is?

A. Yes.

Q. If I ask you a question that you don't understand, would you be sure to tell me that?

A. I would.

Q. Because I want to be certain that we are communicating properly. All right, sir?

1
2 A. Okay.

3 Q. Mr. Houghton, tell me where you went to school?

4 A. I went to Philadelphia Textile School --
5 Philadelphia Textile. I graduated in 1927.

6 Q. What is a textile school?

7 A. A textile school was a specialized school handling
8 various phases of the manufacturing of Yayson cloth,
9 dying and the uses of various types of weaving, like
10 Jacquard, that's a french name, J-A-C-Q-U-A-R-D.

11 Q. All right. After you finished that school, did you
12 take a job?

13 A. I was asked -- interviewed by a man from
14 Johns-Manville, and then three of us went from that
15 school to Johns-Manville in 1927.

16 Q. All right. Now, what base was Johns-Manville in
17 that would have involved textiles?

18 A. They made cloth and yarns, and they also used the
19 yarns in a braiding department for packing. And the
20 cloth was used in various departments, sheet goods,
21 for gaskets and other forms of packing.

22 Q. Was the cloth made out of cotton or was it made out
23 of some other material?

24 A. It was cotton used in it, although the majority was
25 of asbestos.

1
2 Q. So Johns-Manville then would weave the asbestos into
3 these various products that you have just described?

4 A. Uh-huh.

5 Q. Is that right?

6 A. Yes.

7 MR. LEVINTHAL: Mr. Houghton,
8 when he asks you a question, you have
9 to answer verbally so the court
10 reporter can take it down.

11 Q. What was your job with Johns-Manville in the
12 asbestos textile business?

13 A. Over the 12 years I was there, I was in the various
14 departments in the manufacturing and supervision of
15 yarn manufacturers, fabric manufacturers and also in
16 the making of safety clothing.

17 Q. Were all these things made out of asbestos fibers,
18 primarily?

19 A. No. They were blended with other products like
20 rubber.

21 Q. But did all of the products that you have discussed
22 contain asbestos fibers as part of their
23 components?

24 A. Yes.

25 Q. Did you become familiar then with the process by

1
2 which asbestos was woven into these goods?

3 A. What was your first part of that?

4 Q. Did you become familiar with the way the process
5 worked to weave asbestos into these goods?

6 A. Yes.

7 Q. Now, in 1939, did you leave Johns-Manville?

8 A. In 1939, I went to Garlock, ~~Garlock, Garlock, Garlock~~ C-K.

9 Q. And where was Garlock located?

10 A. In Palmyra, New York.

11 Q. What job did you take with Garlock?

12 A. Superintendent of the Asbestos Textile Department.

13 Q. Was that generally the same type of department that
14 you worked at Johns-Manville? Was it the same type
15 of business?

16 A. Yes. Johns-Manville had -- Johns-Manville was made
17 up of about 12 different departments, but one of
18 them was Asbestos Textile Manufacturing.

19 Q. Well, when you went to work for Garlock in the
20 Asbestos Department as a superintendent, what was
21 your job? What did you actually have to do?

22 A. I was hired to learn the various phases of asbestos
23 textile production. At the moment that I was hired,
24 I was -- probably most of my time was with weaving.

25 Q. Now, at that period of time in 1939, were you aware

that there were certain things that you had to do to protect workers against breathing dust on the job?

MR. LEVINTHAL: Objection to

the form. You can answer the question.

A. Where dust was high intensity, masks were required.

Q. How did you know that masks had to be used? Was that something that was common in the industry?

A. I guess the only thing would be the judgment of the management; if it was a dusty position, they would require wearing a mask.

Q. Okay. Now, was there a standard or a requirement for how much dust could be in the air around that time?

MR. SHULTZ: Clarify. Could you clarify, please, what time you are talking about?

Q. I am talking about 1939.

A. There was a federal limit for what various companies would try to stay within, and that was 5 million particles per cubic foot. That's depending on how you arrive at that figure.

Q. Okay. And in order to determine whether you were in the figure or out of the figure, did you have to do dust counting from time to time?

1
2 A. The insurance companies sent people to take
3 specimens, samples on different parts of the
4 factory.

5 Q. Was the dust that they were counting primarily
6 asbestos dust?

7 A. Well, when you take dust, like it would include any
8 dust you might make from your cotton, too.

9 Q. Well, was the standard that you are referring to
10 generally called the asbestos standard for dust in
11 the air?

12 A. Well, I guess manufacturing asbestos, you would
13 classify as asbestos dust.

14 Q. Would it be fair to say that it was known by 1939
15 when you went to work for Garlock, that if a worker
16 breathed too much asbestos dust that he had a good
17 chance of getting ill?

18 MR. LEVINTHAL: Objection.

19 MR. SHULTZ: Objection.

20 Leading.

21 A. It was not a subject that we had brought up to us to
22 discuss.

23 Q. Well, do you know why there was a standard?

24 A. It was not explained to us why asbestos was a
25 harmful drug.

1
2 Q. Do you know why people had to wear respirators?

3 MR. LEVINTHAL: Objection to
4 the form.

5 A. Well, you find a man in any industry or even on the
6 farm, if it's dusty, you are annoyed by the dust, so
7 you protect against it, but the physiological
8 discussions were not analyzed by us.

9 Q. How long did you stay working for Garlock?

10 A. I worked with them for about -- about 40 years.

11 Q. And during the 40-year period, did your job change?

12 A. Oh, yes...

13 Q. How long did you stay as superintendent in the
14 asbestos textile area?

15 A. About 21 years.

16 Q. That would have then been up until 1960?

17 A. Yes.

18 Q. Now, during the period of time that you worked in
19 the asbestos textile area, did you participate in
20 this work to help ventilate the area?

21 A. Yes. My job in being superintendent was, I was also
22 the engineer designing mines to improve dust
23 conditions.

24 Q. Did you remain in that position all the way up to
25 1960?

means

1
2 A. Yes. Also in the rest of my employment there, I was
3 a consultant.

4 Q. Was there reference materials that you could look at
5 to help you understand how to control dust where
6 asbestos was being used?

7 MR. LEVINTHAL: Objection. Do
8 you want to clarify at what point in
9 time?

10 Q. From the beginning of your employment at Garlock in
11 1939, were there reference materials that you could
12 look at to determine how to control asbestos dust?

13 A. No. It was left to us to determine the best means
14 to control dust.

15 Q. Okay. Now, I think you were talking about earlier
16 threshold limit values, were you not, TLV's, the
17 federal standard you were talking about?

18 A. Yes.

19 Q. When did you become aware that there was a TLV for
20 asbestos dust?

21 A. I would -- I would not be able to give you any date,
22 but the general work of supervision, you know you
23 are trying to make it a better working condition for
24 the operator.

25 Q. And were you also trying to be sure that the

operator would not get sick from an asbestos disease?

A. That was not brought up as a subject.

Q. Well, you were a participant in something called the Asbestos Textile Institute, were you not?

A. I was the representative from Garlock.

Q. When did you become the representative from Garlock?

A. I think it was probably about 1945.

Q. And what was the Asbestos Textile Institute?

A. Where was it?

Q. What was it?

A. The Asbestos Textile Institute was an organization composed of all the asbestos textiles manufacturers and the miners in Canada, and there were some miners in the United States. There may have been some representatives of South Africa.

Q. And what was the purpose of the Asbestos Textile Institute?

A. The major purpose was in finding better ways for merchandizing the product.

Q. Did they also get involved in other issues such as health issues?

A. Yes. There would be some discussions of health.

MR. BARON: Let me have you

mark this document as PX 1.

(Whereupon Plaintiff's Exhibit 1 was marked for identification.)

Q. Sir, I have in front of me a three page document that we have had marked by the court reporter as Plaintiff's Exhibit number 1. It is the minutes of a meeting of the Asbestos Textile Institute held on March the 8th, 1956 in Philadelphia, Pennsylvania. It shows in attendance that there was a G. E. Houghton present from Garlock Packing Company. Was that you?

A. Yes. Probably.

Q. Do you remember being at a meeting at the Asbestos Textile Institute on March 8, 1956?

A. As for the date, I wouldn't be able to claim, but I was sent to these various meetings, yes.

Q. All right. Now, when you would attend a meeting, afterwards, would you generally receive some written minutes of the meeting?

A. Minutes would be issued to the various members and they would be mailed to the company.

Q. Did you read the minutes from time to time?

A. Most of the minutes would be mailed and copied to me.

Q. Okay. Did they generally, accurately reflect what went on during the meeting?

A. Yes. We had a good secretary.

Q. Now, at this particular meeting, the president of the group was an F. J. Waken from Johns-Manville?

A. Yes.

Q. Did you know him?

A. Yes. We pronounced it Wecon. (Phonetic)

Q. In the minutes that I have in front of me, which is PX number 1, first of all, I will ask you: You have been shown these minutes before, have you not?

A. Probably.

MR. LEVINTHAL: I think the record should reflect on the front page of PX 1 where it indicates that Mr. G. E. Houghton of Garlock Packing Company was in attendance, he was there with a Mr. Frank Gatke from the Asbestos Textile Company.

I think that the record should reflect what this indicates is that these two men were also in attendance as "representatives of two former member companies."

- 1
2 Q. Mr. Houghton, in the minutes of the meeting under
3 paragraph 9 it states as follows: "The Fellowship
4 Report was presented by Dr. Shaw and is attached as
5 part of the minutes of this meeting." Who was Dr.
6 Shaw?
- 7 A. Dr. Shaw was an engineer who did assignments --
8 research assignments at various projects. He would
9 be assigned different projects over the years, and
10 he would report back to the organization.
- 11 Q. All right. In paragraph 6 it states: "The next
12 report was presented by D. R. Holmes, Chairman of
13 the Air Hygiene Committee." Who was he?
- 14 A. I can't recall exactly what his job was.
- 15 Q. What was the Air Hygiene Committee?
- 16 A. It would be associated with both the Federal
17 requirements and the conditions throughout the
18 industry. They would be associated with any -- with
19 the insurance companies who studied dust conditions.
- 20 Q. Did you ever serve on the Air Hygiene Committee?
- 21 A. No.
- 22 Q. Did Garlock ever have a representative on the Air
23 Hygiene Committee?
- 24 A. Not as such. The Asbestos Institute was mainly
25 concerned with sales.

1
2 Q. I am going to read you a portion of this paragraph
3 to see if it refreshes your recollection, sir.

4 MR. SHULTZ. I am going to
5 object to the form of that question,
6 because I don't think he testified to
7 a lack of recollection that needs to be
8 refreshed.

9 Q. Do you remember anything that happened at that
10 meeting on March the 8th of 1956?

11 A. My memory wouldn't give you very much information.

12 Q. All right. Let me try to refresh your recollection
13 by reading from this paragraph. It talks about the
14 report of the Air Hygiene Committee and it states:
15 "The comments of Dr. Smith of Johns-Manville
16 Corporation related to the report issued by Dr.
17 Hueper on a subject relating asbestosis with lung
18 and heart diseases was discussed at great length."
19 Did you know at that time what the disease
20 asbestosis was in 1956?

21 A. Yes.

22 Q. What did you understand asbestosis was in 1956?

23 A. Asbestosis was usually the result of a person being
24 exposed to asbestos for many years of working.
25 And the best I could understand was that your lungs

are equipped to work with dust. All of us are in dust anyway. So, there is a washing means in your lungs, but sometimes if you are working with a too concentrated dust, it overloads that lung from it's clearing and washing out itself and some of the dust will remain in the lung.

Q. When did you first learn about the disease asbestosis?

A. Well, when is kind of odd to give you a date, but I think over years of experience, you become aware of some of these terms. -- so I think that probably in the 1940's, I was aware of what asbestosis was.

Q. Okay. Now, this paragraph discusses the report by Dr. Hueper that related asbestosis with lung and heart diseases. Do you recall exactly what he was talking about?

MR. ABBOTT: I object. I

don't think it's establish --

A. Lung and heart diseases?

Q. Yes.

A. No. I don't think I could give you any comments on that.

Q. Okay. Were you aware at that time that asbestos had also been linked to cancer of the lungs?

MR. ABBOTT: Objection.

Leading.

A. I don't recall tying in cancer with asbestos. I did understand that asbestosis was a blanking out of the effectiveness of your lungs; you become less and less able to get resultive breathing, more of blanking out.

Q. Now, Mr. Houghton, were you the person who was in charge of safety at Garlock?

A. Was I the person who --

Q. Were you in charge of safety and health at Garlock?

A. Not as such. We had a safety department, but my job was handling manufacturing. If we had a condition where the dust was more than the federal government, we would do -- work to improve the other means of picking up the dust to remove it from the air.

Q. All right. Now, this Exhibit number 1 that we have had marked, I will have you look at it for a minute. Does this appear to be a true and correct copy of the minutes? Does this appear what it looks like?

MR. SHULTZ: Are you asking if those are true and correct copies that he received or do they just look like other minutes that he received?

D 03817

1
2 Q. Does that appear to be a true and correct copy of
3 the minutes as you would have received them from the
4 Asbestos Textile Institute?

5 MR. LEVINTHAL: Are you asking
6 him the minutes in general or the
7 minutes of March 8, 1956?

8 Q. Do you have a specific recollection of that
9 document?

10 A. Specific is not a very good word for me. No, I
11 don't think I could give you a good answer.

12 Q. Does this generally appear to be the type of a
13 document that you would receive as minutes from the
14 Asbestos Textile Institute?

15 A. Yes.

16 Q. Does this look to you to be an accurate copy of the
17 type of minutes that you would receive from the
18 Asbestos Textile Institute?

19 A. Yes.

20 MR. SHULTZ: Objection to the
21 form.

22 MR. LEVINTHAL: Object to the
23 form.

24 Q. Do you have any reason to doubt that this is a
25 correct copy of the minutes of the Asbestos Textile

Institute?

MR. SHULTZ: Objection --

A. It looks like --

MR. SHULTZ: Let me state my
objection. I object to the form as
being argumentative and leading.

Q. So, as far as you're concerned, sir, if I understand
your testimony, you have no specific recollection of
this particular set of minutes, but you believe that
it looks like the minutes that you received in the
past?

A. That's a Xerox of that.

MR. ABBOTT: I object --

MR. LEVINTHAL: Objection.

Q. Now, you worked at the facility here in New York the
whole time, did you not?

A. Well, I have had assignments to various factories,
but my major job was asbestos textile in Garlock,
but I worked in several of the departments in
Garlock. I have been to Camden, New Jersey one of
the plants that makes Teflon and related projects.

Q. Do you know a person by the name of Grace Baylord?

A. Clayton Baylord?

Q. Grace Baylord?

D 03819

1
2 A. It may have been the name, but I don't remember too
3 well.

4 Q. Do you remember when Grace Baylord filed a workers'
5 compensation claim in 1957 for asbestos dust related
6 diseases at your facility?.

7 MR. LEVINTHAL: Objection. He
8 has just testified that he doesn't
9 recognize the name Grace Baylord.

10 Q. Do you remember that there were workers'
11 compensation claims filed against Garlock for
12 asbestos-related diseases?

13 MR. LEVINTHAL: Objection to
14 the form.

15 A. I think I knew of some instances, yes.

16 Q. Okay. Now, the last time you gave a deposition, you
17 were asked if you remembered a claim that was filed
18 on November 14, 1957 by a women named Grace Baylord,
19 who had been employed in the Textiles Department for
20 about 22 years, and you said yes, you remembered her
21 married name?

22 A. Yes.

23 Q. Does that now refresh your recollection that you
24 remember Grace Baylord?

25 A. I know Grace Baylord, yes.

D 03820

1
2 Q. Did she work under your supervision?

3 A. Yes.

4 Q. And were you aware that in 1957 when she was working
5 under your supervision she filed a workers'
6 compensation claim for asbestosis? Do you remember
7 that?

8 A. I think -- I can't state I remember that, but it
9 would be to our Safety Department, not to me.

10 Q. Well, were you made aware of the fact that she was
11 claiming asbestosis?

12 A. I think I may have heard that she was the one.

13 Q. Did you investigate that at all?

14 A. I think she had been working for many years as a
15 creel operator; that's a connection with a loom, and
16 she was a twister operator.

17 Q. Do you know of any other people who worked at
18 Garlock that claimed asbestosis?

19 A. I can't give you a name of any others that claimed
20 it.

21 Q. But were you aware that others did claim it from
22 time to time?

23 A. Yes.

24 Q. Was that in your area of responsibility or was that
25 another department that handled those claims?

1
2 A. Garlock had a procedure of having all of the workers
3 in the Textile Department sent over to Clifton
4 Springs about every other year for an X-ray.

5 Q. When did that procedure begin?

6 A. I can only give you an approximate date. -- Probably
7 about 1950.

8 Q. And why did they send them over to Clifton Springs
9 every year for an X-ray beginning at about 1956?

10 A. Every other year.

11 Q. Excuse me, every other year. Why did they do that?

12 MR. LEVINTHAL: Object to the

13 form.

14 A. To check if there was any health problems developing
15 in the individuals. They would move anyone that was
16 a possible question to other departments.

17 Q. A possible question of what, sir?

18 A. If they found signs of any lung accumulation, they
19 might take them out and move them to another section
20 of the factory.

21 Q. Lung accumulation of what?

22 A. Well, that would be the dust that I have just
23 mentioned to you.

24 Q. The asbestos dust?

25 A. Yes.

D 03822

1
2 Q. And if they found accumulation of asbestos dust in
3 the lung, they would then do what?

4 A. They would move them to another area of the factory,
5 and the usual result was that the person -- the
6 X-rays improved.

7 Q. When you say to another area of the factory, would
8 that have been an area where they were also using
9 asbestos?

10 A. No. Garlock was made up of about 12 different
11 departments. So there were -- it could be
12 secretarial or it could be another type of
13 manufacturing.

14 Q. All right. So was it Garlock's policy then to try
15 to catch these problems early?

16 A. Yes.

17 Q. As soon as they found a problem in the lung from
18 asbestos, they would then move the worker out of the
19 asbestos area?

20 A. That was usually the action, yes.

21 Q. And again let's talk about what time-frame. You
22 believe that was about 1950 when that began?

23 A. I think the X-ray was started around 1950.

24 Q. Okay. Now, to your knowledge, did Garlock ever do
25 any dust counting in the areas where their product

was being used by purchasers?

A. I do not know of any use of a dust counter in somebody that uses that product.

Q. So, would it be fair to say that the dust counting only went on in the Garlock plant where the workers that were using the product were?

MR. LEVINTHAL: Objection --

A. It --

MR. LEVINTHAL: I have an objection to the question. It's a mischaracterization of his testimony. He says he doesn't know if it occurred.

MR. SHULTZ: A further objection as to the form of the question. Leading.

Q. Garlock, as I understand it, would do dust counting in their plants from time to time; correct?

A. Yes.

Q. To your knowledge, did they ever do dust counting where their product was being used outside the plant by their customers?

A. Not that I know of.

Q. To your knowledge, did Garlock ever place warnings on their materials about the potential hazards of

asbestos?

A. I think throughout the industry, probably that there was not that kind of an action.

Q. All right. I am not talking about the industry now. I am talking about Garlock. To your knowledge, did Garlock ever put a warning on any of its products about the hazards of asbestos?

A. Not that I know of. I was not in that -- I was in manufacturing and so on, and not in the sales.

Q. Okay. Did you ever see sales brochures concerning the products?

A. No.

Q. Did you ever see the products actually being installed by users?

A. Oh, that's kind of a -- I have seen packing installed. I have installed them myself.

Q. When you installed packing, did you ever wear a respirator?

A. No. No dust was created in handling packing. It's usually either impregnated with rubber or a grease and there is no dust.

Q. Did you ever measure the dust?

A. No --

MR. ABBOTT: Objection.

D 03825

1
2 A. No. As of the use of the product, I measured it in
3 our own manufacturing operation.

4 Q. Now, asbestos fibers could be very small, can't
5 they?

6 A. Yes.

7 Q. Do you know what five microns is?

8 A. Yes.

9 Q. The human eye can't see five microns, can it?

10 A. No. You need a microscope.

11 Q. And if dust that has particles of five microns or
12 less is in a room, can you see it with your naked
13 eye?

14 A. You could see a haze if there was a high percentage
15 of dust in the area.

16 Q. But would the room appear to be dusty to somebody
17 looking at fibers less than five microns?

18 A. Only in the accumulation it might form.

19 Q. In terms of the air itself though, it would not
20 appear dusty if there were fibers of five or less
21 microns; correct?

22 MR. LEVINTHAL: Objection.

23 MR. SHULTZ: Objection.

24 Leading.

25 A. You would have to magnify it.

1
2 Q. What you're saying, you couldn't see it without a
3 microscope?

4 A. That's right.

5 Q. Now, you mentioned earlier that it was common in the
6 industry about not placing warnings on packages. Do
7 you remember you stated that?

8 MR. ABBOTT: I think that is a
9 mischaracterization.

10 Q. Is that your understanding of what was done
11 generally in the industry?

12 MR. ABBOTT: What
13 time-frame --

14 A. I have been away from the sales completely. I was
15 not in that, so I couldn't give you a comment on
16 what the sales do.

17 Q. Okay. What was your basis for saying that it was
18 common in the industry not to place warnings on
19 these products? How did you know that?

20 MR. ABBOTT: Objection.

21 MR. SHULTZ: I don't
22 understand what industry means.

23 A. Again, I was not associated with sales at all, so I
24 couldn't give you much help.

25 Q. Well, why did you make that statement, sir?

MR. ABBOTT: Objection.

2

3

A. Which statement?

4

Q. The statement where you said that it was common in the industry not to place warnings on packages?

5

6

MR. ABBOTT: Same objection.

7

A. I don't know how I could give you a better answer than, as far as I know, they didn't put warning signs on sales products.

8

9

10

Q. Now, you left Garlock in 1970, did you not?

11

A. Well, I had retired in '70, but I kept being called back for about eight or nine years.

12

13

Q. They couldn't live without you?

14

A. Well, they found my work was some help.

15

Q. Do you also believe, based on your knowledge of the industry, that at least by the 1950's the industry was aware of the disease asbestosis?

16

17

18

MR. LEVINTHAL: Objection.

19

MR. ABBOTT: Objection.

20

MR. SHULTZ: Objection to the

21

form of the question --

22

He is going to make an objection first. He is going to be objectionable for a minute, then you can answer.

23

24

25

MR. SHULTZ: Let me speak. I

object to the form of the question as leading, and I object to the vagueness of the question, in that there is the generic word of industry use.

Q. Okay. Now you can answer the question.

A. Asbestosis has been known for a good many years. Asbestosis has normally been the result of several years exposure to dust in the atmosphere.

Q. Was that generally what was known by the 1950's in the asbestos industry as you knew it?

MR. LEVINTHAL: Objection.

MR. SHULTZ: Same objection as

I stated earlier.

A. It was known, yes.

Q. Mr. Houghton, thank you very much. I'm finished with you. I don't know whether these other people have questions or not, but I appreciate your being here.

(Whereupon there was a brief recess in the proceedings.)

EXAMINATION BY MR. LEVINTHAL:

Q. Mr. Houghton, I am going to ask you a few questions and follow-up on some of the things that Mr. Baron asked you. Okay?

1
2 A. Okay.

3 MR. BARON: Would you mind
4 identifying yourself for the record?

5 MR. LEVINTHAL: Bernard
6 Levinthal. I represent Garlock.

7 Q. Now, Mr. Houghton, am I correct that you were never
8 actually an officer of Garlock, a corporate officer?

9 A. I have only had the superintendent office and later
10 as an engineer, but no, I was not.

11 Q. Okay. Now, Mr. Baron asked you some questions about
12 what he marked PX 1, the minutes of the ATI meeting
13 of March 8, 1956. You recall him asking you
14 questions about those minutes?

15 A. I don't recall any meeting that was held, because of
16 this --

17 MR. BARON: I'm going to
18 object. He wasn't responsive to the
19 question.

20 Q. I will straighten it out. The first thing I am
21 asking you: You recall Mr. Baron asking you
22 questions about it, right, just a few minutes ago?

23 A. Yes.

24 Q. Okay. Now, am I correct then that what you are
25 saying is you do not recall this particular meeting

of March 8, 1956?

MR. BARON: Objection. Very leading.

A. When he specifies a date, I don't have that in my mind.

Q. Okay. Just to clear the record, I will ask it another way. Do you have any recollection of the meeting where Dr. Hueper spoke to the ATI?

MR. BARON: Objection.

That's a mischaracterization. Dr. Hueper didn't speak. They discuss Dr. Hueper.

Q. Do you have any recollection of the meeting where Dr. Hueper's report was discussed at the ATI meeting?

A. No, not this particular report.

Q. Do you have any recollection of ever receiving the minutes of the meeting -- these minutes there in front of you now?

MR. SHULTZ: Plaintiff's 1?

Q. FX 1?

A. Not a specific remembrance. It would go over my desk and I would read them, but not any particular date is sticking out in my mind.

- 1
2 Q. Were there also at times ever people from Garlock
3 who would represent Garlock at the ATI meetings?
4 A. Yes. Others would go, and usually before they went,
5 they would come over and have a briefing, because
6 they didn't know what asbestos textiles were. So I
7 was the one explaining it to them and they would go
8 to the meeting.
9 Q. Now, Mr. Houghton, when Mr. Baron first showed you
10 these minutes, I said something for the record about
11 it saying here that you were representing Garlock,
12 which was a former member company of the ATI. Do
13 you remember me saying that?
14 A. That I was a former member?
15 Q. That Garlock was a former member of the ATI?
16 A. I think I do remember that Garlock was a member,
17 more or less, of the original forming of the
18 Asbestos Textile Institute, but it was mainly
19 composed of finding ways for merchandizing the
20 product. Garlock was actually merchandizing it
21 within its own, not as an asbestos product, but as
22 packing. So they found that whatever dues they paid
23 wasn't bringing in very much return, so for a while,
24 they dropped out.
25 Q. Garlock dropped up?

MR. ABBOTT: Not responsive.

A. They went back in again.

Q. Just to clear up the record, did there come a time when Garlock dropped out as a member of the ATI?

A. Yes.

MR. LEVINthal: I have nothing further.

Does anybody have any questions?

(No response)

MR. BARON: Thank you very much.

(Whereupon there was an off-the-record discussion.)

MR. BARON: There is an agreement with counselor that I am going to leave the original Exhibit 1 with you, but I am going to send you a better copy to substitute for that so that you could attach that to the deposition and everyone agrees with that.

MR. SHULTZ: I would ask if the court reporter could attach the notice of deposition as an exhibit or

court exhibit or my exhibit or whatever
to the deposition. In fact, mark it as
Defendant's Exhibit 1.

(Whereupon Defendant's Exhibit 1 was marked for
identification.)

* * * * *

C E R T I F I C A T I O N

I hereby certify that I reported in stenotype shorthand
the foregoing proceedings;

And that this transcript is a true, accurate and
complete record of those stenotype shorthand notes.

Susan M. Andolen

DATED: June 13, 1988