

COPY

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

IN RE: ASBESTOS PRODUCTS LIABILITY Civil Action
LITIGATION (NO. VI) No. MDL 875

This Document Relates To:

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MINNESOTA
FIFTH DIVISION

CONWED CORPORATION,

Plaintiff,

-against-

UNION CARBIDE CORPORATION,

Civil Action
No. 5-92-88

Defendant and
Third-Party Plaintiff,

-against-

OWENS-CORNING FIBERGLAS
CORPORATION, et al.,

Third-Party Defendant.

November 8, 1996
10:24 a.m.

Deposition of WILLIAM DOUGLAS NEAL,
taken by Plaintiff, pursuant to Agreement,
at the offices of Kelley Drye & Warren LLP,
101 Park Avenue, New York, New York 10178,
before Wendy D. Boskind, a Registered

Professional Reporter and Notary Public within
the State of New York.



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DEPOSITION

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BY: ALAN J. GERSON, ESQ.,
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ALSO PRESENT: Julie STEWART

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EXB (Deposition Exhibit
Plaintiff's Neal 1, memo to Mr. D.R. Albright,
dated November 8, 1972, from W.D. Neal, X414652 -
X414654, marked for identification, as of this
date.)

EXB (Deposition Exhibit
Plaintiff's Neal 2, Trip report, dated December
7, 1972, five pages, marked for identification,
as of this date.)

EXB (Deposition Exhibit
Plaintiff's Neal 3, memo dated January 4, 1973,
to Mr. R.A. DeCoudres, from J.M. Swalm, two
pages, marked for identification, as of this
date.)

EXB (Deposition Exhibit
Plaintiff's Neal 3-A, handwritten document,
X410715, marked for identification, as of this
date.)

EXB (Deposition Exhibit
Plaintiff's Neal 4, Material safety data sheet,
one page, front and back, marked for
identification, as of this date.)

EXB (Deposition Exhibit
Plaintiff's Neal 5, Material safety data sheet,

1
2 one page, front and back, September 1, 1972,
3 marked for identification, as of this date.)

4 EXB (Deposition Exhibit
5 Plaintiff's Neal 6, U001613, one page, marked for
6 identification, as of this date.)

7 EXB (Deposition Exhibit
8 Plaintiff's Neal 7, U004836, one page, marked for
9 identification, as of this date.)

10 EXB (Deposition Exhibit
11 Plaintiff's Neal 8, U004842, one page, marked for
12 identification, as of this date.)

13 EXB (Deposition Exhibit
14 Plaintiff's Neal 9, one page, "Chrysotile
15 asbestos warning, cancer hazard", marked for
16 identification, as of this date.)

17 EXB (Deposition Exhibit
18 Plaintiff's Neal 10, Mellon Institute special
19 report, 12 pages, marked for identification, as
20 of this date.)

21 EXB (Deposition Exhibit
22 Plaintiff's Neal 11, Special report, Chemical
23 Hygiene Fellowship, Mellon Institute,
24 Carnegie-Mellon University, eight pages, marked
25 for identification, as of this date.)

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2 EXB (Deposition Exhibit
3 Plaintiff's Neal 12, U005371, one page,
4 handwritten note, John J. Welsh, M.D., marked for
5 identification, as of this date.)

6 EXB (Deposition Exhibit
7 Plaintiff's Neal 13, memo dated June 28, 1984,
8 from Richard G. Hanlon, and attachment, 8 pages,
9 marked for identification, as of this date.)

10 W I L L I A M D O U G L A S N E A L ,
11 residing at 1812 Watchung Avenue,
12 Plainfield, New Jersey 07062, having been
13 first duly sworn by the Notary Public,
14 (Wendy D. Boskind), was examined and
15 testified as follows:

16 EXAMINATION BY

17 MR. BROWNSON:

18 Q. Mr. Neal, as I said before, my name
19 is Bob Brownson, and I represent Conwed along
20 with Mr. Goldman, who is here with me.

21 First of all, am I speaking in a way
22 loud enough for you to understand it?

23 A. Very legible.

24 Q. If at any time I lower my voice, or
25 you don't understand me, or the question is

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UCAREF00014389

Neal

simply one that you don't understand, will you please tell me that before you answer it?

A. Of course, sure.

Q. Pipe right up. Just a couple of things, very quickly.

First of all, although we have two skilled court reporters here today, they can't take it down if you nod your head or say "uh-huh", or things like that. We need an audible answer so that they can write something on the paper.

A. I understand.

Q. Sometimes you will find yourself nodding your head, but just try to remember to give an audible answer.

Secondly, try not to speak when I am speaking, and I will do the same so, again, they just have one person talking at a time, so they can get it down.

A. Okay.

Q. Okay? Now, let me begin by asking you, Mr. Neal, for your name and address.

A. The name is William Douglas Neal,
N-E-A-L; the address is 1812 Watchung Avenue,

1 Neal

2 Plainfield, New Jersey.

3 Q. Are you currently employed?

4 A. No, I am not.

5 Q. Are you retired?

6 A. I am retired.

7 Q. And from what company did you retire?

8 A. Amoco.

9 Q. And when did you retire?

10 A. In 19-- from Amoco?

11 Q. Yes.

12 A. 1991.

13 Q. What is your current age, sir?

14 A. Current age?

15 Q. Right.

16 A. 78.

17 Q. Okay. Now, at some point along the
18 line you worked for Union Carbide; is that
19 correct?

20 A. Correct.

21 Q. Can you describe for us your period
22 of employment at Union Carbide? When did you
23 begin and when did you end?

24 MR. WILL: Bob, you didn't ask
25 for it, but we have a work history at Union

1 Neal

2 Carbide --

3 MR. GERSON: Because we are so
4 accommodating.

5 MR. WILL: -- that Mr. Neal put
6 together.

7 MR. BROWNSON: Let's mark this as
8 14.

9 EXB (Deposition Exhibit
10 Plaintiff's Neal 14, Mr. Neal's work history at
11 Union Carbide, marked for identification, as of
12 this date.)

13 Q. Mr. Neal, we have been provided with
14 an exhibit that's been marked as Exhibit 14, and
15 it's your work history, is that correct --

16 A. Yes.

17 Q. -- at Union Carbide?

18 A. Yes.

19 Q. And is this accurate, in terms of
20 describing the periods you were employed at Union
21 Carbide?

22 A. Yes, it is.

23 Q. Are there any changes that you would
24 make here?

25 A. No changes; it deals with Union

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UCAREF00014392

1 Neal

2 Carbide, not any other employer.

3 Q. Okay. And this indicates that you
4 left Union Carbide in June of 1985; is that
5 correct?

6 A. Correct.

7 Q. Did you retire at that time --

8 A. Yes, I retired from Union Carbide.

9 Q. And it sounds like following that
10 time, even though you were retired, you then went
11 to take other employment?

12 A. Yes.

13 Q. What other employment did you have
14 after June of '85?

15 A. I had miscellaneous consulting for
16 three years --

17 Q. Okay.

18 A. -- and then went with Amoco for three
19 years.

20 Q. And that would then bring us up to
21 your latest retirement.

22 A. Correct, yes.

23 Q. Now, the miscellaneous consulting you
24 did for three years, after you left Union
25 Carbide, was that in the field of industrial

Neal

hygiene?

A. Yes, it was.

Q. Without getting into the details, what sort of industrial hygiene consulting did you do during that three-year period?

A. I would make studies and issue reports to the law firm which engaged me, on personal injury cases.

Q. And which law firm was that?

A. Affiliated Engineering.

I will correct that. That was not a law firm; the lawyers for which I wrote the reports were clients of Affiliated Engineering.

Q. Oh, okay. And I assume these reports were prepared in the context of certain personal injury litigation that these law firms were hiring Affiliated Engineering to work on?

A. Yes.

Q. And then would Affiliated Engineering go to you and say: Here is an area in your field, will you do the report for us?

A. Yes.

Q. So, you weren't an employee of theirs, you were a consultant who they would turn

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Neal

to?

A. Simply a consultant, yes.

Q. And what area of personal injury or law were these reports for?

I mean, were these, for instance, asbestos cases or were they some kind of other cases?

A. They were mainly other cases involving chemicals, chemical exposure.

Q. Were any of them dealing with asbestos personal injuries of any sort?

A. Not directly.

Q. Did any of the reports that you prepared, as best you can recall, because you may not remember all of them, but were any of the reports that you prepared during that three-year period, did any of the reports that you prepared during that three-year period discuss any asbestos exposure issues?

A. Not that I recall.

Q. And then you began at Amoco -- let's see, that would be '88, or so?

A. Um -- '88 through '91, yes.

Q. And what work did you do there?

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UCAREF00014395

1 Neal

2 A. I handled the environmental
3 protection program.

4 Q. When you say "environmental
5 protection program", did that deal with
6 compliance issues with the EPA or was that kind
7 of plant safety and environmental issues or what
8 was that?

9 A. It was plant safety, and also EPA and
10 also OSHA.

11 Q. So, among other things, did it deal
12 with EPA and OSHA compliance issues at Amoco
13 plants?

14 A. Yes.

15 Q. Was it a particular Amoco plant or a
16 number of different ones?

17 A. It was not a plant, it was a research
18 laboratory.

19 Q. And where was that located?

20 A. Bound Brook.

21 Q. Bound Brook, New Jersey?

22 A. Yes.

23 Q. And we are backing up a little bit,
24 but I understand when you were at Union Carbide,
25 for some period of time, were you also at

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UCAREF00014396

1 Neal

2 Bound Brook, New Jersey?

3 A. Yes.

4 Q. In connection with the work you did
5 for three years at Amoco, did any of the EPA or
6 OSHA compliance issues deal with any asbestos
7 standards or asbestos regulations?

8 A. Not directly; we had our own asbestos
9 protection program.

10 Q. Did your work get involved with that?

11 A. Partially.

12 Q. Did you ever, for example, get
13 involved in any comments to EPA or OSHA in
14 connection with any rule making they were doing?
15 In other words, would Amoco, you know, submit
16 something to them and submit a report by you or
17 something of that nature?

18 A. We submitted reports to the State of
19 New Jersey, environmental matters.

20 Q. Did any of those deal with asbestos
21 exposure?

22 A. None that I recall.

23 They were mainly air emissions and
24 waste chemicals.

25 Q. Let's then back up, and can you just

1 Neal

2 give us a brief overview of your education, what
3 it was and where and when.

4 A. Okay. It was chemical engineering.

5 Q. And where did you get your
6 undergraduate degree?

7 A. Princeton university, in 1940.

8 Q. That was a Bachelor of Science?

9 A. Yes, and one more year of graduate
10 degree.

11 Q. Okay. Did you get a degree then,
12 graduate degree?

13 A. Ch.E. degree.

14 Q. Is that -- pardon me on this, is
15 that equivalent to a Master's in Chemical
16 Engineering?

17 A. Yes.

18 Q. Did that then complete your formal
19 education?

20 A. Yes.

21 Q. So, it sounds like you would have
22 gotten the Ch.E. in '41?

23 A. Correct.

24 Q. Now, have you ever had your
25 deposition taken before?

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A. Yes.

Q. And about how many times; do you know?

A. I could not accurately report.

Q. Well, let me break it down. Have you ever had your deposition taken before in connection with any lawsuits against Union Carbide or lawsuits in which Union Carbide was involved, whether they were the plaintiff or the defendant?

A. Yes, I have.

Q. Have any of those depositions concerned themselves with any asbestos exposure issues?

A. At least one, perhaps more.

Q. And that's what I would like to focus on.

Can you recall when the deposition was taken concerning asbestos exposure issues involving Union Carbide?

A. It would have been between 1973 and the early Eighties.

Q. Do you recall the type of case that was involved with that deposition?

1 Neal

2 A. I could not really recall what they
3 consisted of.

4 Q. Was it a personal injury case?

5 A. I could not really even say that.

6 Q. Was Union Carbide a party to the
7 case?

8 A. Union Carbide, in some of the
9 conferences, depositions, et cetera, would be a
10 third party.

11 Q. So were these, then, cases of Union
12 Carbide workers suing like product suppliers
13 arising out of exposure in a Union Carbide
14 workplace; is it that sort of case?

15 A. No, they were customers' employees.

16 (Ms. Stewart leaving the room.)

17 MR. GERSON: Let's just take a break
18 for two minutes.

19 (Mr. Gerson leaving the room.)

20 MR. WILL: Keep going.

21 MR. BROWNSON: Should I keep going?

22 (Discussion off the record.)

23 (Mr. Gerson and Ms. Stewart entering
24 the room.)

25 MR. BROWNSON: Can I hear the last

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Neal

question, please.

(The record was read.)

Q. So, these cases you have described, it sounds like employees of some Union Carbide customer were suing because of some exposure at their workplace?

A. Yes.

Q. And do you know what customer this was?

A. There were many. I could not recall.

Q. What were they customers of? Were they Calidria customers or --

A. They were customers of our standard Bakelite products.

Q. Okay.

A. And some of which might have contained asbestos, but not Calidria asbestos.

Q. So, UC made Bakelite plastic, I guess is what it is; correct?

A. Yes.

Q. And the Bakelite contained -- or some of the Bakelite contained asbestos as an ingredient?

A. Yes.

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UCAREF00014401

1 Neal

2 Q. Is it your testimony that the
3 asbestos that Union Carbide used in Bakelite was
4 not Calidria asbestos but was some other kind of
5 asbestos?

6 A. No. As a matter of fact Calidria
7 never came up, in my recollection.

8 Q. So, whatever was used in Bakelite,
9 you don't know what kind of asbestos that was;
10 would that be fair to say?

11 A. I know what most of the asbestos was.

12 Q. And what was that?

13 A. Carey asbestos.

14 Q. Was that chrysotile?

15 A. Chrysotile.

16 MR. GERSON: For a clarification, are
17 you confining yourself now to the products that
18 were the subjects of these lawsuits you asked
19 about?

20 MR. BROWNSON: Right, the Bakelite.

21 MR. GERSON: Involving these
22 lawsuits.

23 MR. BROWNSON: Right.

24 Q. Do you know what grade of Carey
25 chrysotile was used in Bakelite?

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1 Neal

2 A. I would not remember the
3 nomenclature. The generic name was asbestos
4 floats.

5 Q. Had you ever heard of something
6 called the Quebec standard grading system for
7 asbestos? It kind of runs 1 through 7.

8 A. No.

9 Q. Was it your understanding that
10 "floats" referred to the short end of -- they
11 were the short end of the grade?

12 A. That was my assumption.

13 Q. Do you know why they were called
14 "floats"?

15 A. I have no idea.

16 Q. In any event, if I could just
17 summarize, it sounds like your deposition was
18 taken one or more times in connection with these
19 lawsuits of workers from Bakelite customers;
20 would that be fair to say?

21 A. Essentially so.

22 Q. Do you know in what states these
23 lawsuits came out of? Were they New Jersey
24 plaintiffs or?

25 A. They were nationwide.

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UCAREF00014403

1 Neal

2 Did you say New Jersey?

3 Q. Yes.

4 A. They were nationwide.

5 Q. And do you know what -- and who
6 retained you to -- well, first of all, were you
7 retained by one of the parties in those cases to
8 work on the cases?

9 A. I don't understand --

10 Q. Okay.

11 A. -- what you --

12 Q. Let me put it a different way.

13 MR. WILL: He was still an
14 employee --

15 A. I was an employee of Union Carbide,
16 testifying about our process.

17 Q. So, somehow, one of the parties to
18 the suit, whether it was the plaintiff or the
19 defendant or Union Carbide that may have been a
20 third-party defendant, asked you to provide some
21 testimony at a deposition in connection with
22 those suits?

23 A. Yes.

24 Q. Do you remember who it was that
25 actually wanted you to testify? In other words,

1 Neal

2 was it Union Carbide or was it the plaintiffs or
3 was it the defendants?

4 MR. WILL: Do you mean who noticed
5 him as a deposition or who named him as a witness
6 or --

7 MR. BROWNSON: Okay, this is somewhat
8 technical.

9 Q. For instance, in this deposition
10 here, Conwed is suing Union Carbide in this case,
11 and I am the Conwed lawyer, and we asked to take
12 your deposition. Do you understand that
13 scenario?

14 A. Yes.

15 Q. What I am just trying to find out is,
16 in these depositions we have just been talking
17 about, who was it who wanted to take your
18 deposition?

19 A. I would have to confess, I do not
20 recall, over 20 years ago.

21 Q. Right. Do you remember the name of
22 any of the lawyers or the law firms involved in
23 the case for any of the parties?

24 A. No.

25 Q. And, again, you don't remember

1 Neal

2 exactly how many depositions there were, but
3 there could have been more than one?

4 A. There could have been more than one.
5 There were also conferences, and I could very
6 well be confused between a "deposition" and a
7 "conference".

8 Q. Right. Did any of the depositions or
9 conferences take place here at this law firm?

10 MR. WILL: Here at Kelley Drye &
11 Warren?

12 MR. BROWNSON: Right.

13 A. No. In New York?

14 Q. Right.

15 A. No.

16 Q. Or, they have many offices all over
17 the Country, was it at one of their other offices
18 that you remember?

19 A. Not that I recall.

20 Q. Okay, because it's a large far-flung
21 operation and Alan has to keep his finger on the
22 pulse.

23 A. I may have visited one office.

24 Q. Do you still --

25 MR. WILL: Wait, of what?

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Q. Of Kelley Drye & Warren?

A. Yes.

Q. In connection with those cases, is what I am asking.

A. I don't recall in what connection.

Q. Okay.

A. I rather doubt it. I consulted with these folks --

MR. WILL: Well, wait a minute. Just answer the question, which was, did you ever visit a Kelley Drye & Warren office --

THE WITNESS: Yes.

MR. WILL: -- in connection with the deposition from those Bakelite cases.

THE WITNESS: I don't recall.

Q. Right now, I am confining myself to these Bakelite cases.

A. Okay.

Q. Do you still keep copies of those depositions from the Bakelite cases?

A. No.

Q. Do you know who would have them?

A. They have been dumped long ago, (indicating); huge.

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Q. And --

A. This comes mainly from my consulting work, not Union Carbide.

Q. So, let me ask you this.

So this would be in that -- generally, in that three-year period after you left Union Carbide --

A. Yes.

Q. -- when you were doing consulting, you were working on these Bakelite cases; would that be fair to say?

A. No.

Q. Oh. The depositions?

A. I worked on no Bakelite cases as a consultant.

MR. WILL: Bob, I think you are talking past each other, about other depositions.

MR. BROWNSON: Oh.

MR. WILL: You see, he gave depositions in connection with his consulting work that didn't relate to asbestos; that's what he has dumped.

MR. BROWNSON: Okay.

MR. WILL: You may have to --

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UCAREF00014408

Neal

Q. Let me try to ask a different question.

A. Okay.

Q. The Bakelite case depositions that we have been talking about, those were earlier, while you were still at Union Carbide, as I understand it; is that right?

A. Yes.

Q. That was before you were consulting?

A. Right.

Q. Do you still keep copies of those depositions?

A. No.

MR. WILL: Well, I don't know that he ever had one.

MR. BROWNSON: Well, maybe --

MR. WILL: You never asked it.

MR. BROWNSON: -- you had a deposition or a copy.

MR. WILL: A copy, you assumed he had one; you said do you still keep it.

MR. BROWNSON: I didn't mean to say he had one and threw it away.

Q. I am wondering if you have copies of

Neal

those depositions.

A. No. I have tossed notes and 20-year-old information long ago.

Q. Now, these Bakelite cases, were these cases where workers, at these Bakelite customer plants, were claiming that they had some sort of asbestos-related disease from exposure to the Bakelite?

A. That could be typical of the cases -- some case.

Q. And, again, can you recall the name of any of the customers or the customer plant locations where these workers were located?

A. I could not, really.

Q. Do you know, was there anyone else at Union Carbide who you can recall who was involved in working on those cases?

A. None that I know of.

Q. Now, you said that the asbestos used in Bakelite was primarily Carey -- and Carey is the name of a company; right?

A. Supplier.

Q. Carey Canada. And they are a supplier of asbestos fiber that's mined up in

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UCAREF00014410

Neal

Canada; is that right?

A. Yes.

Q. And that's these chrysotile --

A. Chrysotile.

Q. -- floats?

A. Yes, asbestos floats.

Q. Right. You said that they were the primary supplier of asbestos in Union Carbide's Bakelite. Were there any others, that you know of?

A. None that I know of.

Q. Do you know if any of Union Carbide's Calidria asbestos was ever used in Bakelite?

A. Yes.

Q. Some was?

A. Used in the product?

Q. Bakelite, yes, in the product Bakelite?

A. Experimentally.

Q. How about in production?

A. No. Let me qualify that.

The experiment was run in production equipment.

Q. But it was not sold as --

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UCAREF00014411

Neal

A. Correct.

Q. -- a production product, Bakelite?

A. Correct.

Q. And do you know when it was that Calidria asbestos was experimentally used in Bakelite?

A. 1974 or '5.

Q. And why was it not put into production; do you know?

A. The end product did not measure up to standard product.

Q. Around that time, was there an effort by Union Carbide on a wider basis to try to find uses for Calidria in its own products, or was Calidria just one of many types of ingredients that were experimentally used?

A. Could you give that to me in two questions?

Q. Yes. The first question is, was there an effort around that time, within the wider company of Union Carbide, to find uses within the company for the Calidria product?

A. None that I know of.

Q. In connection with the experimental

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Neal

use of Calidria asbestos in Bakelite, were you involved in that at all?

A. Only in the production cycle.

Q. And, as you recall, this was about '74, '75?

A. Yes.

Q. Was this in a particular plant where this production experiment was going on?

A. The Bound Brook plant.

Q. Now, that's Bound Brook, New Jersey?

A. Correct -- excuse me, the run could have been in 1973 rather than 1975.

Q. So it was somewhere between 1973 and 1975?

A. Correct.

Q. Now, as I understand it, Union Carbide had some sort of plant at Bound Brook, New Jersey --

A. Yes.

Q. -- is that right? Is that plant still there?

A. The facilities are not; they have been torn down.

Q. In what general time frame was that

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UCAREF00014413

Neal

plant in operation?

A. Between 1940 and the time it was demolished.

Q. And when was that?

A. In the late Seventies --

Q. And what sort of --

A. -- or early Eighties.

MR. GERSON: Doug, you might want to clarify which facilities were demolished.

THE WITNESS: The manufacturing building, where the product was made.

Q. And what kind of plant was that?

What was made there, generally; was it plastics?

A. The Bakelite thermosetting products were made.

Q. And, in layman's terms, what is Bakelite?

A. It's a hard -- let me back off.

The Bakelite name was assigned to just about every plastic that existed in the time that we are talking about, including vinyl, polyethylene, many others. It was a trade name.

Q. Was this a trade name of Union

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UCAREF00014414

Neal

Carbide's?

A. Yes.

Q. I don't want to waste a lot of time on this, but is it fair to say that Union Carbide made a number of different types of plastic at this Bound Brook, New Jersey plant, all of which were called Bakelite?

A. Yes.

Q. And in the production of some of these plastics, asbestos was used as an ingredient; is that right?

A. In the Bakelite phenolic resins.

Q. And just again, in layman's terms, what is Bakelite phenolic resin?

A. Bakelite phenolic resin is a polymer of phenol and formaldehyde.

Q. You have to be even more basic than that.

What sort of product would it be? Is it a hard plastic?

A. It's a hard plastic.

Q. So, would it be like the case of a television set, that kind of thing?

A. Rather, the handle of steam irons or

1 Neal

2 electrical boxes, washing machine agitators.

3 MR. WILL: Are you talking about the
4 end product?

5 MR. BROWNSON: Yes.

6 MR. WILL: Or what Union Carbide
7 made?

8 A. Automobile parts, brake linings.

9 Q. I am trying to get just a sense of
10 what this phenolic resin Bakelite looked like,
11 just to a non-engineer.

12 MR. WILL: Well, can you clarify it;
13 when it came out, when Union Carbide was done
14 with it, it was phenolic resin, it's what the end
15 customers did with it.

16 Q. So this Bakelite phenolic resin was a
17 hard-plastic, I take it, and then customers would
18 use it, you would sell it, for instance, to a
19 company that made steam irons, and they would use
20 it for the handle of the steam iron?

21 A. Yes.

22 Q. Or you would sell it to a car company
23 and they would use it like for a doorknob?

24 A. Correct.

25 Q. Was any amosite asbestos ever used as

1 Neal

2 an ingredient in that Bakelite plastic, that you
3 are aware of?

4 A. Not that I know of.

5 Q. How about crocidolite asbestos; was
6 this ever used?

7 A. Not that I know of.

8 Q. Do you recall the diseases that were
9 claimed by any of these workers from the Bakelite
10 customers?

11 A. No. I am not sure I was even aware
12 of what the diseases were.

13 Q. In your work, in connection with
14 those cases, did you ever consult or talk or
15 listen to any physicians that were involved in
16 those cases where they were actually talking
17 about the diseases?

18 A. I don't recall that.

19 Q. Did any of those cases actually go to
20 a trial at court?

21 A. I could not say.

22 Q. Did you ever actually testify in a
23 courtroom in any of those cases?

24 A. No, I never did.

25 Q. Now, I want to focus on your work at

Neal

Union Carbide as an industrial hygienist in the safety, health, and environmental division, if I could.

And, as I understand it, that was your official position from '72 to '85 --

A. Yes.

Q. -- correct? And, in general terms -- we will get into the specifics in a minute, but in general terms, was that work kind of just what it implies as an industrial hygienist?

A. Correct.

Q. Now, before 1972, had you, in your employment at Union Carbide, done industrial hygiene type work?

A. No.

Q. So, it looks like in general terms, before 1972, you were kind of a chemical process engineer type of a guy; is that right?

A. Correct.

Q. And then, in '72, you moved really into kind of a different field, which is industrial hygiene?

A. Yes.

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Q. Why did you make that move at that time?

A. I was asked to make the move.

Q. And do you know why that was?

A. Several reasons; mainly, to run the program at Bound Brook.

Q. So, let me ask you some questions about that.

You were, I take it, living in New Jersey and working at the Bound Brook plant or Bound Brook facilities --

A. Yes.

Q. -- at the time, and it sounds like they wanted someone to run the industrial hygiene program at Bound Brook, and you were that person --

A. Yes.

Q. -- is that fair to say?

A. Yes.

Q. Was this the beginning of the industrial hygiene program at the Union Carbide Bound Brook facility or was it being expanded or just a new person was being put in charge or what was going on?

Neal

A. It was not the beginning.

Q. So, there had been an industrial hygiene program of some sort at the Union Carbide Bound Brook facilities before October of 1972?

A. Yes.

Q. Was that program expanded or something at that point or were you just given the job?

A. I was given the job.

Q. Now, if we go back to 1972, do you recall that as being the year when OSHA essentially took effect or about that time?

A. OSHA, I believe, came into being I thought '71.

Q. Well, I was being vague when I said "took effect" because, you are right, the law was passed earlier and then regulations were done. I am not sure exactly when it actually came into practical effect in plants.

But, was it around the '71 time period?

A. I would say '71 and '72.

Q. And do you recall at that time -- well, first of all, were your duties, when you

Neal

took the new job as the head of industrial hygiene at the Bound Brook Union Carbide facility, did your duties include OSHA compliance issues?

A. Yes.

Q. Now, were you the top guy or chief guy for the industrial hygiene work at the Bound Brook, New Jersey --

A. Yes.

Q. -- facilities for Union Carbide?

A. Yes.

Q. What was that actually called? What was your title?

A. Staff industrial hygienist.

Q. And let's just stop, if we could.

At that point in time, when you took that position, I want to get some idea of what Union Carbide's industrial hygiene program looked like.

MR. GERSON: At Bound Brook?

MR. BROWNSON: Well, overall.

Q. I know this is probably a more complicated question than it sounds.

MR. WILL: Well, he is not going to

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1 Neal

2 have any knowledge of what their program was
3 anywhere other than Bound Brook.

4 Q. What I am trying to ask at this point
5 is just the corporate structure of the industrial
6 hygiene people.

7 MR. WILL: Okay.

8 Q. Okay? And it sounds like each Union
9 Carbide facility or maybe major Union Carbide
10 facility around the Country had an industrial
11 hygiene staff on site; is that right?

12 A. Yes.

13 Q. And Bound Brook, New Jersey was one
14 of those; that was its plastics operation?

15 A. Yes.

16 Q. And you were made the head of it in
17 October of 1972?

18 A. Correct.

19 Q. How many people were in your
20 industrial hygiene group there, at the
21 Bound Brook facility?

22 A. One, besides myself.

23 Q. So it was you and then an assistant
24 to you?

25 A. Yes.

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1 Neal

2 Q. And was there then some sort of
3 corporate industrial hygiene people who you
4 reported to, like at the home office or somewhere
5 else?

6 A. I was in contact with the home
7 office, but I reported to the plant manager.

8 Q. Well, let me ask you this question.
9 Industrial hygiene at that time was a fairly wide
10 field, it dealt with many --

11 A. Exactly.

12 Q. -- issues, and you were new to the
13 field, so to speak, and I imagine there was a lot
14 of things you had to learn; would that be fair to
15 say?

16 A. Certainly true.

17 Q. And in terms of your education in the
18 field, I guess you were kind of alone here at
19 Bound Brook, were you given training or
20 instruction or materials from Union Carbide?

21 A. Yes.

22 Q. For instance, was this at Bound Brook
23 or would you go somewhere and, you know, get this
24 training or how did that work?

25 A. Both at Bound Brook and elsewhere.

Neal

Q. Now, in connection with -- well, let me go back. In terms of just the corporate structure at Union Carbide, of industrial hygiene, you were the Bound Brook industrial hygienist and you reported to the Bound Brook plant manager; correct?

A. Yes.

Q. But would you also be working with your counterparts in the other Union Carbide plants around the Country from time to time?

A. Exactly, from time to time.

Q. And was there some kind of like central industrial hygiene area at Union Carbide where they would have specialists or people who would help the people at the plants on certain issues?

A. Yes.

Q. What was that called?

A. That was the technical center in South Charleston, West Virginia.

Q. And can you just describe for me, going back to this 1972 time period when you began as industrial hygienist, what sort of people or technical expertise or material was in

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1 Neal

2 the technical center that, you know, you had
3 available to you?

4 A. The tech center had specialists in
5 industrial hygiene, including toxicology,
6 analytical chemistry.

7 Do you want to hear more?

8 Q. Yes, if you can remember anymore.

9 A. Basic chemistry, physics covers most
10 of the other non-chemical activities; sound
11 abatement, noise effects, radiation exposure,
12 heat stress.

13 Q. Did they have a specialist or a --
14 specialists who concerned themselves with
15 asbestos exposure at the technical center?

16 A. Not as such.

17 Q. Did they have toxicologists?

18 A. Yes.

19 Q. And did any of the toxicologists, as
20 part of their duties, concern themselves with
21 asbestos exposure?

22 A. They gave lectures on many chemical
23 hazards.

24 Q. And was asbestos exposure one of
25 those?

Neal

A. I would have to say I don't remember exactly; it probably was.

Q. And would they come -- the toxicologists, would they come out to Bound Brook from time to time or would you go to the technical center in Charleston, West Virginia or would they mail you information or how would you interact with those people?

A. All of those that you mentioned.

Q. Did Union Carbide have some regular program where all of the plant industrial hygienists like yourself would gather, you know, like once a year for a conference?

A. Yes.

Q. Was this -- why don't you describe for me what that was. Was it -- you know, how it worked; was it once a year or every now and then or how did that work?

A. It was regularly once a year, and there would be occasional other meetings of the industrial hygienists, and there was a national yearly meeting of the industrial hygienists from all vocations; government and private industry.

Q. So, it sounds like Union Carbide had

1 Neal

2 a conference once a year for its own industrial
3 hygienists --

4 A. Yes.

5 Q. -- right? Was that always held at
6 the same place?

7 A. No, it was held at different plant
8 sites.

9 Q. Was it always at one of the different
10 Union Carbide plants?

11 A. Yes.

12 Q. Was it ever at Bound Brook,
13 New Jersey?

14 Were you the host of it?

15 A. Yes -- um -- I don't remember a
16 meeting at Bound Brook, as such, of all the Union
17 Carbide industrial hygienists. They were mainly
18 in South Charleston, Texas City, to name a few.

19 Q. Were there then --

20 MR. WILL: Did you want to clarify if
21 there was a meeting at Bound Brook?

22 MR. BROWNSON: Yes.

23 Q. Was there ever one of these annual
24 company-wide industrial hygienists meetings --

25 A. No.

Neal

Q. -- at Bound Brook?

MR. WILL: Wait until he finishes his question completely before you answer.

Q. Were there smaller meetings of some industrial hygienists or a particular topic that you hosted at Bound Brook of industrial hygiene people from the company?

A. Not at Bound Brook.

Q. Did you host them somewhere else?

A. Yes.

Q. Where was that?

A. Now I don't remember.

Q. Now, even though you were the Bound Brook facility industrial hygienist from '72 to '85, as that time period went on, you know, for those 13 years, did you kind of begin to specialize in a certain part of industrial hygiene?

A. Not really.

Q. Did there ever come a time during your 13-year tenure as the Bound Brook industrial hygienist when you were recognized -- and I use the term not in a formal sense -- within Union Carbide as a guy with expertise in a particular

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area of industrial hygiene?

A. Not really.

Q. Now, these national conferences you spoke of, those sound like that's bigger than Union Carbide, that --

A. Yes.

Q. -- includes government people and people from many private companies?

A. Yes.

Q. Was this something that you would attend every year?

A. Yes.

Q. I suppose those were held in different locations, as well?

A. Yes.

Q. Who was the host of those things?

A. The committee.

Q. What was that committee called?

A. It was a joint committee with the three major industrial hygiene organizations.

Q. Were you a member of any industrial hygiene organizations from '72 to '85?

A. Yes.

Q. What groups were you a member of?

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A. The American Industrial Hygiene Association, the American Association of Governmental Industrial Hygienists.

Q. Is that the ACGIH?

A. Yes.

Q. Any others?

A. And the AAIH.

Q. And that's the American Association of Industrial Hygienists, or something along those lines?

A. Something along those lines; that included the certified industrial hygienists.

Q. Okay. So the AAIH, was that more of a -- I don't want to say a "trade group", but a group of the certified industrial hygienists?

A. Yes.

Q. Now, were you a certified industrial hygienist?

A. Yes.

Q. When did you obtain that designation?

A. In 1978.

Q. And I suppose you kept it until '85?

A. Yes --

Q. You maybe even keep it today.

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A. -- a little later.

Q. Were you a member of the AIHA, American Industrial Hygienist Association, from '72 to '85?

A. Yes.

Q. And how about the American Conference of Governmental Industrial Hygienists, ACGIH; what was the period of your membership there?

A. I don't recall that.

Q. Do you remember about when you started there?

A. I don't even know whether it was a membership-type organization.

Q. But it sounds like somehow you had some connection with them, you got publications from them or went --

A. Yes.

Q. -- to their meetings or something like that?

A. They issued publications that we subscribed to.

Q. You were on their list?

A. Yes.

Q. It sounds like the American

Neal

Association of Industrial Hygienists, which is the certified industrial hygienists group, you were in that from '78 until '85?

A. Yes.

Q. And then a little after that?

A. A little after.

Q. Now, were you ever on any committees of any of these industrial hygiene groups?

A. No.

Q. With respect to the American Conference of Governmental Industrial Hygienists, did you receive publications from them?

A. The AIHA published annual listings of certified industrial hygienists --

MR. WILL: His question was, did you get publications from the ACGIH; that's what he wants to know.

A. Yes.

Q. Well, let me ask this. They published these little booklets which are the threshold limit value booklets, or the TLV booklets of all the different materials, and I think they came out annually, although I don't think they ever actually changed annually, were

Neal

you a recipient of those?

A. Yes.

Q. Would you get the new booklet each year as it came out?

A. Yes.

Q. And is that something that you actually used in your work at Bound Brook, New Jersey? Would you refer to that from time to time?

A. Yes.

Q. Now, are you aware of the fact that, from 1972 to 1985, the ACGIH threshold limit value booklet included, among many other things, asbestos?

A. Yes.

Q. And you are aware that it had a threshold limit value or what they call a "TLV" for asbestos?

A. Yes.

Q. Did you ever have occasion to refer to the asbestos threshold limit value in your work at Bound Brook?

A. Yes.

Q. In addition, then, to the American

Neal

Conference of Governmental Industrial Hygienists and their threshold limit value for asbestos, are you aware of the fact that in 1972 OSHA put out an asbestos standard for workplaces?

A. Yes.

Q. Did that OSHA asbestos standard apply to the Bound Brook, New Jersey facility --

A. Yes.

Q. -- of Union Carbide?

A. Yes.

Q. Was that administered in New Jersey by the federal government or did the State of New Jersey have an OSHA administration or OSHA -- what --

A. That was a federally-administered.

Q. So, would it be fair to say that, from 1972 to 1985, Union Carbide Bound Brook, New Jersey facility fell under the jurisdiction of the federal OSHA asbestos standard?

A. Yes.

Q. And that would be the general industry standard, not the construction standard?

A. Yes, general industry.

Q. Okay. And, although this was not an

1 Neal

2 occasion government regulation, during those
3 years there also was a threshold limit value for
4 asbestos put out by the American Conference of
5 Governmental Industrial Hygienists?

6 A. Yes.

7 MR. WILL: In some states it was
8 occasion.

9 MR. BROWNSON: Okay.

10 Q. Was that an official standard in
11 New Jersey or was that more of an advisory
12 standard that you used?

13 A. I couldn't say for sure.

14 It wasn't federally, prior to 1972,
15 the state monitored asbestos, the New Jersey
16 Public Health Department.

17 Q. Before 1972, when the State of
18 New Jersey was monitoring asbestos in workplaces,
19 like the Bound Brook facility, do you know, did
20 they use the ACGIH --

21 A. Yes.

22 Q. -- limit as their number?

23 A. They did.

24 Q. Now, as part of your duties,
25 beginning in October of 1972, did you learn or

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become familiar with the OSHA general industry asbestos regulation?

A. Yes.

Q. Were you involved in setting up any programs at the Union Carbide Bound Brook, New Jersey facility to come into compliance with that?

A. Yes.

Q. Can you describe for us what that consisted of? I mean what you did and, you know, who was involved.

A. There was a great amount of training to be done regarding the handling of asbestos. There was considerably -- air monitoring required, personnel monitoring, there were labelling requirements.

Q. Okay. Now, did these requirements, then, apply at least in -- because you were using at Bound Brook this Carey chrysotile asbestos -- in the production of the Bakelite plastic?

A. Yes.

Q. And, with all due respect to you, you are now new to the field, 1972, and this is kind

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of a complicated area, were you forced to learn this by yourself or was there some specialist within the company who helped you with this or how did that work?

A. There were specialists that I worked with.

Q. And can you recall who those people were?

A. Robert Cope.

Q. What was his title?

A. Industrial hygienist.

Q. At Union Carbide Company?

A. Yes.

Q. And where was he based out of?

A. The technical center, in South Charleston.

Q. Did you ever work -- or did you ever meet a man named Robert Peele, P-E-E-L-E?

A. Yes.

Q. Was he also an industrial hygienist from one of the West Virginia plants?

A. Yes.

Q. Was he at Charleston or institute, or one of those things?

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1 Neal

2 A. He was the industrial hygienist for
3 the research center, the technical center.

4 Q. Was he ever involved in any of the
5 work with respect to asbestos? You know --

6 MR. WILL: At Bound Brook?

7 MR. BROWNSON: Let me take that back.

8 Q. Did you just happen to meet him or
9 did he actually work with you in some of this
10 training or industrial hygiene issues?

11 A. He did not work with me; I shared
12 conferences with him.

13 Q. So, you would see him at conferences?

14 A. Yes.

15 Q. But with respect to the actual
16 assistance you got from Union Carbide people on
17 these asbestos compliance issues in '72, Robert
18 Cope would have been that guy?

19 A. Yes.

20 Q. And did he come up, then, to visit
21 you at Bound Brook, New Jersey to help you get
22 this OSHA asbestos compliance set up in '72?

23 A. Yes.

24 Q. How much time did he spend up there
25 working with you on that?

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1 Neal

2 A. Four or five days.

3 Q. Did he have a kind of a package or
4 program that he had developed that you could then
5 adopt at your plant or was this kind of a
6 custom-made thing just for your plant?

7 A. It was customized for the Bound Brook
8 plant.

9 Q. But, for instance, was he
10 knowledgeable about the ins and outs of the
11 regulation itself and how that actually affected
12 day-to-day work in the plant?

13 A. Yes.

14 Q. And, so, he would kind of help you
15 understand that and get it in place at the plant?

16 A. Yes.

17 Q. As far as you knew, did all of the
18 requirements of the OSHA standard, in 1972, apply
19 to this chrysotile asbestos that Union Carbide
20 was using in its production of Bakelite?

21 A. Yes, essentially so.

22 Q. Let me just run through some of the
23 things that you mentioned. One of the things you
24 had to do, as an industrial hygienist in this
25 plant, was training regarding the handling of

Neal

asbestos; correct?

A. Yes.

Q. And the asbestos that was used in the production of the Bakelite, which was this chrysotile asbestos from Canada, how did that arrive at the plant?

Did it come in railroad cars --

A. Railroad cars.

Q. -- or trucks. And -- what, you would open the railroad car, would there be like piles of bags on pallets or piles of bags in the car or loose fiber in the car?

A. Piles of bags on pallets.

Q. As part of your duties, did you have to concern yourself with how those pallets with piles of bags of chrysotile asbestos were unloaded from the railroad cars?

A. Yes.

Q. And what was the issue there that you concerned yourself with? Was it like broken bags or rough handling of bags or what?

A. Mainly, broken bags.

Q. And I know that we are going back a long time, but can you recall what the situation

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was with broken bags? In other words, was this a big problem or was it infrequent, or what do you remember about that?

A. It was not frequent, it was an ever present problem, not to break bags while handling.

Q. So, basically, could I summarize by saying that you were concerned that the asbestos arriving in these railcars be intact bags --

A. Exactly.

Q. -- that the bags don't get broken --

A. Yes.

Q. -- because, if they are broken, then the dust can come out and people can breathe it?

A. Yes.

Q. Would sometimes you see the situation where the worker would just open the railcar and some of the bags would already, like, have been broken in transit or was it more a situation where the workers or forklifts were actually breaking bags?

A. I couldn't give you a definite answer on that, that goes so far back.

Q. Right.

Neal

A. I looked for loose asbestos.

Q. Now, did your workers -- and I mean the Union Carbide people who were unloading the railcars -- was that done by Union Carbide employees --

A. Yes.

Q. -- with forklifts? They would drive up and, you know, get the pallet on the forklift and take it out of the car and bring it into the plant?

A. Yes, with forklift trucks.

Q. And I think I understood what you were telling me to be that, in connection with that, you told the workers or cautioned the workers that they shouldn't break the bags?

A. Yes.

Q. How about the issue of after the car was unloaded, would the workers have to clean out the railcar?

A. Yes.

Q. And were you concerned that if there was loose asbestos from a -- broken bags --

A. Well --

MR. WILL: Wait. Or did you need to

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Neal

say something?

Q. Was there more to that?

A. I qualify that. I can't say for sure whether they had cleaned the cars out. They cleaned any spillage in the building.

Q. Well, let's confine ourselves, at this point, to the railroad cars.

After the pallets were unloaded by the Union Carbide workers, with the forklifts, now the railcar is empty, would the workers then sweep up the car or, you know, air-blow it out with an air hose or anything like that?

A. Not normally.

Q. So the railroad didn't require that, it was just an empty car and away it would go?

A. Yes.

Q. Can you recall, however -- despite the fact that that wasn't something your workers did -- can you recall telling the workers, or having some instruction in place, that they shouldn't -- or that they should be careful about the loose dust left in the railcar?

A. They were told to avoid any loose asbestos spillage.

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1 Neal

2 Q. Now, once the pallets of asbestos
3 bags were brought into the plant from the
4 railcars, were there then, also, instructions as
5 to how those bags were handled in the plant?

6 A. Continually with care.

7 Q. And then, as you mentioned, if one
8 of the bags was broken and there was some
9 spillage in the plant, would that have to be
10 cleaned up?

11 A. Yes.

12 Q. Were there instructions as to how
13 that was to be done?

14 A. Yes.

15 Q. Can you describe for us what you
16 recall about those instructions?

17 A. They would spray with soapy water any
18 spillage.

19 Q. Was the concern that the dry spilled
20 asbestos would create dust and, therefore, you
21 had to wet it down?

22 A. Exactly.

23 Q. Were there any instructions regarding
24 the use of air hoses with the dust?

25 A. Definitely.

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Q. And what were those instructions?

A. Avoid any air hoses.

Q. And why was that?

A. It would only aggravate the dusting problem.

Q. How about sweeping with brooms; were there instructions on that?

A. With wet -- wetted down asbestos, they swept with brooms.

Q. Were the workers instructed you don't dry-sweep the asbestos, you have to wet it down before you sweep it up?

A. Yes.

Q. Now, once the pallets with the bags of chrysotile asbestos were into the plant, you have to help me a little bit with the production process, but I assume at some point then they were dumped into the production process?

A. Yes.

Q. And, at Conwed, they had a device that they called a hydropulper, which was essentially a big -- a slurry sort of vat, for want of a better word, where the bags would be dumped into.

1 Neal

2 Was there a similar thing at
3 Bound Brook for the plastics?

4 MR. WILL: Objection. He has never
5 seen the hydropulper, he can't know. Why don't
6 you just ask if --

7 MR. BROWNSON: Let me ask a different
8 question.

9 Q. Can you describe for me how the bags
10 of asbestos were introduced into the plastic
11 manufacturing process at Bound Brook, New Jersey?

12 A. They were dumped into a hopper.

13 Q. Did the hopper contain a wet slurry
14 or just dry material?

15 A. The hopper was a part of a shoot that
16 led to a blender.

17 MR. BROWNSON: "Blender" is a better
18 word than "hydropulper".

19 Q. The bags were dumped into a hopper
20 and run down into a blender that would blend
21 different ingredients together?

22 A. Yes.

23 Q. Were the bags dumped in by hand?

24 A. Yes.

25 Q. Would the bags have to be opened and

Neal

then emptied into the hopper or would they throw the whole bag in there?

A. They would be opened and emptied into the hopper.

Q. Did you have any instructions in place for the workers who were opening and emptying the bags of asbestos into the hopper?

A. Yes.

Q. What were those instructions?

A. As to the care in cutting the bags open and dumping them into the hopper and placing the empty bags into a container.

Q. Would it be fair to say that your instructions were take care in especially opening the bags and disposing of the empty bags to prevent dust?

A. Yes.

Q. And your concern, of course, was that you didn't want the workers breathing asbestos dust.

A. Yes.

Q. Would that be fair?

Were the workers who were emptying bags into the hopper required to wear

Neal

respirators?

A. Yes.

Q. Do you know when that requirement began? In other words, when you began at the plant, were they already wearing respirators or is this something you started as part of the OSHA program?

A. The wearing of respirators had been on request but became mandatory in 1972.

Q. So before '72, and I realize you weren't in the industrial hygiene area, but was it your understanding that respirators were available by the company and, if the worker wanted to wear it, it was available for him --

A. Yes.

Q. -- so he could say to his foreman: I want a respirator, and he would say: Okay, you can have one?

A. Yes.

Q. So, it was optional with the worker or the foreman?

A. Optional with the worker.

Q. Now, once the bag of chrysotile asbestos was dumped into the hopper, then you

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UCAREF00014448

Neal

mentioned that the empty bags had to be disposed of; right?

A. Yes.

Q. And you had instructions covering that so that there wouldn't be dust associated with that disposal of the old bags?

A. Yes.

Q. Were those paper bags or --

A. Paper.

Q. -- burlap?

A. They were paper bags.

Q. How big were they; like 50-pounders or a hundred or --

A. I think they were 50-pound.

Q. Now, once the chrysotile asbestos was dumped into the hopper, in the production process, was that essentially the end of the potential for asbestos dustiness or somewhere further along the production process were you concerned about the potential for asbestos dust being created?

A. There was the downstream possibility of exposure.

Q. And was this something that you

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UCAREF00014449

1 Neal

2 worked with in your industrial hygiene duties on
3 the asbestos OSHA standard? In other words, were
4 there procedures and instructions for workers
5 further along in the production line?

6 A. Yes.

7 Q. Can you describe for us what that
8 was?

9 A. Mainly, it was the wearing of
10 respirators.

11 Q. How could asbestos dust be released
12 so that the workers would breathe it, you know,
13 further down the production line after it had
14 been dumped into the hopper?

15 A. The last stage of the process
16 consisted of milling the mix, containing
17 asbestos, on hot rolls, and the rolls were fed
18 from above. And an operator operated those
19 rolls, and conceivably could possibly have
20 inhaled some dust.

21 Q. So, if I could put it in layman's
22 terms, at the end of the production line, the
23 baked-like plastic came out in rolls, and you
24 said they were like trimmed --

25 MR. WILL: No, you are assuming

MANHATTAN REPORTING CORP.

UCAREF00014450

Neal

something -- why don't you ask him in what form the Bakelite was when it comes out of the production process.

Q. At the end of the production line, you have essentially, I guess, got the Bakelite coming out on rollers; is it in sheet form at that point?

A. Yes. That was a further processing from the one I just described.

Q. Okay. So the one you just described is -- what's the physical thing that's actually happening to the Bakelite where the dust could be released?

A. Actually, the mixing of the ingredients; the resin, the asbestos, and other ingredients.

MR. GERSON: Would you like a description of the end product of the process he is talking about?

MR. BROWNSON: I probably need that. I thought it was easier to ask the questions, but we will probably spend more time. Let me just kind of forge ahead.

Q. So, after the asbestos is dumped into

Neal

the hopper, then there is a mixing going on, and that mixing can create some dust there, too?

A. But there is no opportunity for exposure to personnel in that stage. After the mixing came the two-roll milling which hot-compounded the mix into a homogeneous mass.

Q. So it would be like kind of a gooey gloppy mass?

A. And that, in turn, would be further rolled into a sheet.

Q. Okay. And, during this rolling of the gooey gloppy mass into a sheet, is there concern there that there could be asbestos dust released?

A. There could occasionally be dust, resin dust and any other dust.

Q. Including asbestos dust?

A. Including asbestos dust.

Q. So you were concerned at that stage that the workers were not breathing too much asbestos dust?

A. Yes.

Q. So, now our plastic is coming out in a sheet. Is there any further opportunity at

Neal

that point for asbestos dust to be released?

A. No.

Q. Are these sheets, you know, cut or trimmed or sawed or anything?

A. Yes, they are cut.

Q. How are they cut?

A. With knives.

Q. Like automatic knives?

A. Guillotines.

Q. There is not a guy standing there with a knife?

A. No.

Q. There is a big machine that comes down and chops it --

A. Yes.

Q. -- into pieces?

A. And finally granulation.

Q. So, the cutting of the plastic with these automatic guillotine knives, would that be something where dust could be released?

A. No.

Q. Why was that?

A. That was a homogeneous solid, and any asbestos was homogenized in the hot mold.

MANHATTAN REPORTING CORP.

UCAREF00014453

Neal

Q. So it's still kind of a hot gooey material at this point?

A. No.

Q. It's not gooey, but it's hot?

A. It's hot.

Q. And it's cut?

A. And it's cut.

Q. And when that cutting is done, there is not a lot of dust flying around --

A. Right.

Q. It's a solid material.

And then, from that stage, what happens?

A. After the granulation, it was packed into containers.

Q. So the sheet then was ground up into granules?

A. Yes.

Q. And was that a dusty operation?

A. Yes.

Q. So, did you have to have procedures in place there to prevent the release of asbestos dust?

A. We had ventilation and we had

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UCAREF00014454

1 Neal

2 optional use of face masks, but we treated that
3 as nuisance dust.

4 Q. So, when you say "optional use of
5 face masks", again, that would be up to the
6 worker to wear one or not?

7 A. Yes.

8 Q. Were those face masks different from
9 the respirators we were talking about back at the
10 hopper?

11 A. They were the same.

12 Q. And then this granulated plastic
13 would be put in boxes or bags?

14 A. Yes.

15 Q. And then I suppose put on pallets and
16 taken by a forklift out to a warehouse?

17 A. Yes.

18 Q. In that operation, where it was
19 bagged and put on pallets and trucked out to the
20 warehouse, did you concern yourself with the
21 release of any dust there?

22 A. Only in terms of nuisance dust.

23 Q. And that is what, if bags were broken
24 or that sort of thing?

25 A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014455

1 Neal

2 Q. Now, did you ever hear -- first of
3 all, how many workers were working in this
4 plastic production process at Bound Brook, let's
5 say in '72?

6 MR. WILL: You are talking about
7 where they used the asbestos?

8 MR. BROWNSON: Yes, from this
9 production.

10 Q. From the time it comes off the
11 railcar to the time the pallets are stacked in
12 the warehouse, how many workers are we talking
13 about here? Is this like ten people or a hundred
14 people or?

15 A. Again, are you talking about strictly
16 the asbestos product?

17 Q. Yes, the Bakelite plastic containing
18 asbestos as an ingredient.

19 A. There would be the unloading forklift
20 truck driver, then another forklift truck driver
21 would take the asbestos bags upstairs to the top
22 floor, where the operator would dump the bags
23 into the shoot, another operator would dump the
24 bags. Three people.

25 Q. Did Union Carbide, as far as you

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UCAREF00014456

Neal

know, ever get any Workers' Compensation claims from any workers at Bound Brook claiming they had any illness as a result of asbestos exposure?

A. Any illness?

MR. GERSON: Could you repeat the question?

(The record was read.)

A. I don't have direct knowledge of that.

Q. Do you have any indirect knowledge?

A. Only that the union was aggressive in making claims of exposures to noise, to chemicals.

Q. What union covered the workers at that plant?

A. The OCAW.

Q. And who was that? Is that the Chemical and Atomic Workers?

A. Yes.

Q. Oil Chemical and Atomic --

A. Oil Chemical and Atomic Workers.

Q. And would it be fair to say that, as far as you were concerned, that union, or at least the local at that plant, was fairly

1 Neal

2 aggressive in making claims for different
3 occupational --

4 A. Yes.

5 Q. -- injuries or exposures coming out
6 of the plant?

7 A. Yes.

8 Q. And, although you have no direct
9 recollection of a claim based on asbestos
10 exposure, is it fair to say that you think there
11 could have been such claims?

12 MR. WILL: Well, objection to that;
13 that's pure speculation.

14 Q. Well, subject to that objection.

15 A. Do you need an answer to that?

16 Q. Yes.

17 MR. WILL: Well, he can't answer that
18 because he doesn't know.

19 A. I suspect so.

20 MR. BROWNSON: Well, there.

21 MR. WILL: Well, what does that --
22 so what?

23 MR. BROWNSON: Well....

24 Q. Now, did the Bound Brook plant get
25 OSHA inspections from -- beginning in '72 onward

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UCAREF00014458

Neal

to '85, by different OSHA inspectors?

A. Could you restate that, please?

Q. Did OSHA inspectors ever visit the Bound Brook plant from '72 to '85?

A. Yes.

Q. Do you recall the OSHA inspectors, as part of their visit, concerning themselves with whether the OSHA asbestos regulations were being complied with in the plant?

A. Yes.

Q. And was there a particular OSHA guy that you remember or would it be different people?

A. There were many different OSHA inspectors and state inspectors.

MR. GERSON: "OSHA guy" in the generic sense.

MR. BROWNSON: Right.

Q. Would they come like once a year or would they just show up every now and then or how would that work?

A. They would not come on any regular schedule.

Q. Did the Oil Chemical & Atomic Workers

Neal

union have a local right there that covered the
Bound Brook facility?

A. Yes.

Q. Did they have an office there?

A. Yes.

Q. Is Bound Brook a town?

A. Yes.

Q. So, right in town they would have
some union office --

A. Yes.

Q. -- that would cover your plant?

A. Yes.

Q. Did Union Carbide ever receive any
citations from OSHA from '72 to '85 which
concerned themselves, in whole or in part, with
asbestos exposure at Bound Brook?

A. No.

Q. So, put another way, Union Carbide
was always able to keep the asbestos exposure in
the plants within OSHA exposure limits?

A. Yes.

Q. At some point along the line, I guess
right in '72, one of the things that had to be
done to comply with OSHA was air testing.

MANHATTAN REPORTING CORP.

UCAREF00014460

1 Neal

2 A. Yes.

3 Q. Correct? Had there been any air
4 testing for asbestos dust at Bound Brook before
5 1972?

6 A. Yes.

7 MR. GERSON: Can we just pause for
8 one moment?

9 MR. BROWNSON: Sure.

10 (Counsel conferring with the
11 witness.)

12 MR. GERSON: Why don't we just take a
13 five-minute break.

14 (Recess taken.)

15 Q. Earlier, Mr. Neal, you said that you
16 suspected that there may have been some
17 asbestos-related Workers' Compensation claims by
18 Bound Brook workers. And why do you suspect that
19 or why do you think there might have been?

20 A. Simply to follow a pattern of claims
21 on the part of the employees at the urging of the
22 union. The union workers who met with their
23 members, the union provided a good bit of
24 information to assist any employee in putting in
25 a claim.

1 Neal

2 Q. Do you know if the union also
3 conducted any medical screenings of the workers?

4 A. I don't know if they conducted any of
5 their own screening.

6 Q. Did Union Carbide do medical
7 screening or medical surveillance as part of the
8 OSHA asbestos regulation?

9 A. Yes.

10 Q. Do you know, did the union ever try
11 to get ahold of those records or use them for
12 their own use?

13 A. I couldn't say.

14 Q. Who would do the medical surveillance
15 of the workers under the OSHA asbestos
16 regulation? Was there a doctor in-house or was
17 it some physician in town or any doctor or what?

18 A. We had a doctor in-house.

19 Q. Was he a medical doctor?

20 A. Yes.

21 Q. As far as you know, did it ever come
22 to your attention that any of the workers had any
23 asbestos-related conditions that were picked up
24 by these medical screenings that were done by the
25 company doctor?

MANHATTAN REPORTING CORP.

UCAREF00014462

1 Neal

2 A. I do not know.

3 Q. Was this something that was made
4 available to you or this was just a different
5 department?

6 A. There was no need to be -- to have
7 that available to me.

8 Q. Have you ever heard of a doctor, a
9 physician, named Hilton Lewinsohn? Does that
10 name ring a bell?

11 A. Lewis-- yes.

12 Q. Dr. Lewinsohn.

13 THE WITNESS: Wasn't -- he is the
14 gentleman --

15 MR. WILL: Hilton --

16 MR. BROWNSON: Lewinsohn,
17 L-E-W-I-N-S-O-H-N.

18 MR. GERSON: Do you mean at any time
19 did he ever hear of him?

20 MR. BROWNSON: Yes.

21 THE WITNESS: He was not -- he was
22 the doctor of the -- that I talked to yesterday,
23 or we discussed.

24 MR. GERSON: Yes.

25 Q. Okay. Before yesterday, had you ever

MANHATTAN REPORTING CORP.

UCAREF00014463

Neal

1
2 heard of him?

3 A. No.

4 Q. Now, I guess I've got to back up and
5 ask you, what did you do in preparation for the
6 deposition today?

7 Did you -- let's start with, who did
8 you speak to?

9 A. Today?

10 Q. No, at any time before today, to get
11 ready for the deposition.

12 A. I spoke with these gentlemen,
13 (indicating Mr. Will and Mr. Gerson).

14 Q. Now, in addition to Mr. Will and
15 Mr. Gerson, it sounds like you also spoke to
16 Dr. Lewinsohn?

17 A. He was here at the -- while I was
18 here.

19 Q. So, yesterday, to get ready for the
20 deposition, Mr. Will and Mr. Gerson had you come
21 in here to the office and Dr. Lewinsohn was here,
22 as well?

23 A. Yes.

24 Q. Was anyone else present?

25 A. No.

Neal

Q. Did Dr. Lewinsohn give you any information that -- well, any information?

MR. GERSON: On anything?

MR. BROWNSON: Yes.

A. No. We were simply -- discussed Union Carbide and people that we both had known.

Q. So this was more of a -- I don't want to use the term "social visit" --

A. It was mainly social.

Q. But his purpose was not to educate you for the deposition; was it?

MR. WILL: Well, he can't testify what Dr. Lewinsohn's purpose was, but....

Q. Did Dr. Lewinsohn show you any documents?

A. No.

Q. Did you review any documents in preparation for the deposition?

A. No.

Q. Other than this meeting yesterday here at Alan Gerson's office, did you have any other preparation, so to speak, for the deposition?

A. None.

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Neal

Q. Okay.

MR. GERSON: Your reference to "documents", you meant documents other than the work history.

MR. BROWNSON: Right.

MR. WILL: Well, we didn't show him that.

Q. Now, in connection with your work as an industrial hygienist for Union Carbide at Bound Brook, New Jersey, did you have any contact with the Union Carbide medical department?

A. Yes.

Q. And what contact was that? In other words --

A. There was no particular contact. There were occasions when I would discuss matters with Union Carbide physicians.

Q. Did you ever discuss anything with a Dr. Carl Dernehl?

A. Again, the name?

Q. Dernehl, D-E-R-N-A-H-L; he was in the medical department at Union Carbide.

MR. GERSON: Or a similar spelling.

MR. BROWNSON: Right. Is it E-H-L?

MANHATTAN REPORTING CORP.

UCAREF00014466

Neal

A. It doesn't ring a bell. It could be quite possible.

There are many doctors that looked after other plants.

Q. Now, at some point along the line, I take it you became aware that breathing asbestos dust could cause disease of one sort or another; correct?

A. Right.

MR. WILL: Potentially.

MR. BROWNSON: Well, potentially or could.

Q. Right?

A. Yes.

Q. Is this something you learned before you began your industrial hygiene work in '72 or is this something you learned at that time?

A. I can't help but think that, the matter of asbestos being a health hazard, that I was aware to some degree.

Q. In connection with your new job as head of industrial hygiene at Bound Brook, beginning in October of '72, did you obtain further information about asbestos-related

Neal

diseases?

A. Yes.

Q. What did you learn at that time in terms of the diseases that could be related to breathing asbestos dust?

A. Mainly, the term "asbestosis".

Q. So you understood that if workers were to breathe asbestos dust they could get asbestosis?

A. Yes.

Q. How about lung cancer; did you learn anything about an association between asbestos and lung cancer?

A. Only cursory-type information.

Q. How about malignant mesothelioma; is that something that came to your attention?

A. Yes, at a later date.

Q. When did you first learn that malignant mesothelioma could be caused by asbestos exposure?

A. Sometime in the Seventies.

Q. How did you come by that information?

A. Mainly, literature.

Q. Now, is this literature you did on

Neal

your own or would this come as material from Mr. Cope or from the medical department or what?

A. From various sources.

Q. From various sources within the company?

A. Both within and outside the company.

Q. Were you asked as part of your duties to, you know, do your own learning outside the company, to stay up to date on developments in your field?

A. Was I asked?

Q. Right.

A. No.

Q. Did you make it a point, just for yourself, to do that?

A. Yes.

Q. Did you ever attend any conferences or meetings in which the topic of asbestos-related diseases was discussed?

A. Yes.

Q. And what was that?

A. One of the annual AIHA meetings included many courses provided during the meeting, and one so-called course or

Neal

informational session included asbestos.

Q. Do you remember when that was?

A. In the mid-Seventies.

Q. And who was the presenter of that information?

A. I don't recall the name of the gentleman.

Q. Now, were you aware that Union Carbide had a mine and mill near King City, California, where chrysotile asbestos was mined and milled?

MR. WILL: At what point in time?

Q. At any point in time.

MR. WILL: Well, he knows that today.

MR. BROWNSON: Okay.

Q. When did you first become aware that that was one of the Union Carbide businesses?

A. When we tested the Calidria asbestos.

Q. And you recognize Calidria, C-A-L-I-D-R-I-A, as a trade name for the asbestos that Union Carbide mined and milled at King City, California?

A. Yes.

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UCAREF00014470

Neal

Q. At some point, were you involved in testing of that material?

MR. GERSON: Testing for what?

MR. BROWNSON: Well, I don't know.

Q. You said --

MR. WILL: He told you about that this morning, that's the Bakelite test.

MR. BROWNSON: Oh, I'm sorry, I wasn't clear on that.

Q. Let me just ask some questions to clarify this for me. You just mentioned, a minute ago, at some point you were involved in some testing, and that's when you became aware of the Calidria?

A. Yes.

Q. What testing are we talking about here?

A. Mainly, air testing.

Q. And where did that testing take place?

A. At the point of use of asbestos, where the asbestos was handled.

Q. Was this in connection with what we talked about this morning, where Calidria

MANHATTAN REPORTING CORP.

UCAREF00014471

Neal

asbestos was used in these trials in the
Bakelite --

A. Yes.

Q. -- plastic production?

A. (Nodding.)

Q. Now, the Calidria asbestos that was
used in the Bakelite plastic production trials at
Bound Brook, New Jersey, did that also arrive in
bags?

A. As I recall, it did.

Q. And you told us this was like '73 to
'75, in that time period?

A. Yes.

Q. Do you know how much Calidria was
used in this production pilot or testing program
at Bound Brook, New Jersey?

A. Enough for one run.

Q. Well, now you have got to help me
there. Would that be like one bag or a pallet
load of bags or a railcar or what?

A. No, it would be a partial pallet
load.

Q. Do you recall that the Calidria
asbestos arrived in the form of bags stacked on a

Neal

pallet?

A. Yes.

Q. And were these, again, about 50-pound bags or were they hundred-pound bags?

A. I think they were 50-pound bags.

Q. And did they arrive by railcar or truck?

A. I don't recall how they arrived.

Q. As far as you were concerned, at the time those bags arrived, in 1973 to 1975, did the same precautions that you have described earlier, with the Carey asbestos, apply to the handling of that asbestos?

A. Yes.

Q. And that would include, you know, making sure you didn't break the bags or tear the bags; right?

A. Yes.

Q. Now, were those paper bags or plastic or burlap or --

A. I believe they were paper.

Q. And the precautions would also include when you were dumping that into the hopper?

Neal

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A. Yes.

Q. Do you remember, were those the kind of bags you would open and dump into the hopper or the kind where you could just throw the whole bag in?

A. You never threw the whole bag in, the bags were always opened.

Q. Oh, yes. This Union Carbide Calidria asbestos that we have just been talking about, did this come in pellet form or what they call open fiber or loose fiber?

A. It came in pellets.

Q. And do you remember what particular type of Calidria asbestos it was?

For instance, they had like RG-144 and RG-244 and Hi-purity pellets, they had these different names?

A. I don't know.

Q. But, in any event, it was the pelletized asbestos that came in the pellets in the bags?

A. Yes.

Q. Do you remember if it was what was known as resin grade? Do you remember that

Neal

designation at all?

A. No, I don't.

Q. Do you know why it was pelletized?

A. Not exactly, other than I assumed it was to minimize the dusting effect.

Q. And, do you know, was that for the purpose of minimizing the dusting effect back when it was being produced or minimizing the dusting effect when it was being used in a factory, like you were considering using it?

A. Any -- at any time during handling.

Q. Did you recognize that, once it went into the hopper, it was chopped up and then of course was no longer in pellet form?

A. No.

Q. At some point, it was taken out of pellet form, though, wasn't it? In other words, it got mixed up and --

A. At some point.

Q. -- ended up in the plastic?

A. At some point, in the blender.

Q. Right. Do you recall any broken bags of the Calidria asbestos?

A. No.

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UCAREF00014475

Neal

Q. Now, did you understand the Calidria was chrysotile asbestos?

A. It was never stated to me.

Q. I take it you were not the person who made the decision to try the use of Calidria asbestos in the Bakelite production, that was more of a production or a research and development kind of a decision?

A. A research decision.

Q. At the point that this was going on, you were now in the industrial hygiene area, and would it be fair to say that your role with respect to this was just to make sure that it was handled like any other asbestos in the plant?

A. Yes.

Q. Were you ever told at that time that the Calidria was a less hazardous or safer type of asbestos than the Carey asbestos from Canada?

A. I don't recall what was told to me.

I recall that it had that as a asset -- an asset.

Q. Do you remember why you understood or thought that it was a safer type? Was it because

Neal

it was in pellets?

A. Yes.

Q. So, by being in pellets, it wouldn't be as dusty if, for example, a bag was broken; is that fair to say?

A. Yes.

Q. Do you recall whether the bags of Calidria asbestos that arrived at Bound Brook, New Jersey, between '73 and '75, carried any -- a label or a warning that said anything about: Avoid breathing asbestos dust?

A. I don't recall, other than that it would not have been accepted had it not been labeled.

Q. You understood that the original OSHA asbestos regulation that went into effect in '72 had a warning or a labelling element to it; correct?

A. Yes.

Q. So that would apply then, for instance, to the bags of the Carey chrysotile asbestos and the Calidria asbestos?

A. Yes.

Q. Oh, I want to just jump back. The

1 Neal

2 American Conference of Governmental Industrial
3 Hygienists threshold limit value booklets that
4 you got every year, that we talked about earlier,
5 remember those?

6 A. Yes.

7 Q. Do you recall that in 1974, with
8 respect to the threshold limit value for
9 asbestos, reference was made that breathing
10 asbestos dust could cause cancer in the ACGIH
11 booklet?

12 A. I think that booklet listed several
13 particles that were considered a cancer hazard.

14 Q. Do you remember that asbestos was one
15 of those?

16 A. I think so.

17 Q. Do you recall the year when it first
18 listed asbestos as a cancer hazard?

19 A. I could not recall.

20 Q. Following this trial run of Union
21 Carbide Calidria asbestos in the plastic
22 manufacturing at Bound Brook, in 1973 to '75, did
23 you then ever have anything more to do with
24 Calidria asbestos?

25 A. No.

MANHATTAN REPORTING CORP.

UCAREF00014478

Neal

1
2 Q. Did you ever become aware up until
3 yesterday, or other than any discussions you had
4 yesterday, did it ever come to your attention
5 that Union Carbide had sold the asbestos mine and
6 mill in King City, California?

7 A. No.

8 Q. Did you ever, in the -- or during
9 the course of your work at Union Carbide, meet
10 any of the industrial hygienists from King City?

11 A. No.

12 Q. Did you ever go out there?

13 A. No.

14 Q. Did you know Paul McDaniel?

15 A. Yes.

16 Q. You never had anything to do with the
17 air tests, air monitoring tests, that were done
18 at the mine and mill in King City?

19 A. No.

20 Q. Did you ever have anything to do, in
21 the course of your duties at Union Carbide, with
22 air monitoring tests done for asbestos at Union
23 Carbide customer plants?

24 A. No.

25 Q. Were you aware that Union Carbide had

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UCAREF00014479

Neal

a program where Union Carbide industrial hygienists from -- I think they were all from, you know, Niagara Falls or Tarrytown, New York, that area, were actually going out to customer plants to do air monitoring for asbestos dust?

A. I was not aware of that.

Q. Have you become aware that that program was in place? Have you learned that, you know, since then?

A. No, I have not.

Q. Have you ever seen, for example, a report by a Union Carbide industrial hygienist that was done regarding air monitoring for asbestos at Conwed's plant?

A. At which plant?

Q. Conwed?

A. No.

Q. First of all, have you ever heard of Conwed Corporation --

A. No.

Q. -- before yesterday. Okay.

MR. WILL: Again, try to let him finish.

Q. Oh, yes. While the Calidria asbestos

Neal

was being used during these trial runs in the manufacturing of plastic at Bound Brook, was air monitoring done?

A. Yes.

Q. Was it done during the unloading of the car or the truck?

A. During all stages of handling.

Q. Was a personal air monitor put on the workers --

A. Yes.

Q. -- for instance, who were unloading in the forklift, that sort of thing --

A. Yes.

Q. -- and then dumping it into the hopper?

A. Yes.

Q. And then these later stages of production -- I forget, mixing or whatever we had talked about earlier --

A. The roll milling.

Q. The roll milling; right?

A. Yes.

Q. Okay. And in addition to the -- well, first of all, the personal air monitor,

MANHATTAN REPORTING CORP.

UCAREF00014481

Neal

that's that little thing (indicating) they wear on their lapel, that has a hose that goes down to a pump on their belt?

A. Yes.

Q. So it kind of sucks in the air at the breathing zone by the man's mouth?

A. Yes.

Q. In addition to those -- that air monitoring, was there also a stationary air monitoring done during the use of the Calidria?

A. There was some area monitoring done.

Q. Good. Now you have given me the proper term. Do you refer to that -- well, let me back up.

If you have the actual air filter and monitor and pump on the man, you know, attached to his collar and belt, do you call that "personal air monitoring"?

A. Yes.

Q. And, then, if you just set up a pump on the floor or on a chair, or whatever, by the hopper, you call that an area air monitoring?

A. Yes.

Q. So, in addition to the personal air

1 Neal

2 monitoring, there was also area air monitoring;
3 correct?

4 A. Yes.

5 Q. Where did that take place in this
6 production process?

7 A. In the various areas where asbestos
8 was being handled.

9 Q. And now I will ask, I will really
10 test your memory, do you remember what the
11 results of any of that air monitoring was?

12 MR. WILL: Specifically or
13 generally?

14 A. The results were generally lower than
15 any personal samples.

16 Q. So the area samples were lower than
17 the personal samples.

18 A. As I recall, they generally ran that
19 pattern.

20 Q. Now, was that also true when air
21 monitoring was done for the Canadian chrysotile
22 asbestos? Were the personal samples on the man
23 generally higher than the area samples?

24 A. I am not even sure we ran area
25 samples during the Calidria run.

MANHATTAN REPORTING CORP.

UCAREF00014483

1 Neal

2 Q. Now, so, when the Calidria was used
3 in this experimental run, you do recall that
4 there were the personal samples on the men;
5 right?

6 A. Yes.

7 Q. And there may or there may not have
8 been area samples done on that, too?

9 A. There may or may not have been.

10 Q. With respect to the actual levels
11 recorded on any of the sampling that was done
12 with the Calidria, as you sit here today, do you
13 recall what those levels were?

14 A. In numbers, you mean?

15 Q. Right.

16 A. I would recall that they were in --
17 within limits, OSHA limits.

18 Q. So they were under the OSHA standard?

19 A. Yes.

20 Q. And was the OSHA standard at that
21 time -- because I think it didn't change until
22 '76, was it at that time five fibers per cubic
23 centimeter of air --

24 A. Yes.

25 Q. -- on the eight-hour time-weighted

Neal

average?

A. Yes.

Q. And then there was the excursion limit for the 15-minute --

A. Ten fibers -- 15 minutes and ten fibers.

Q. Per cubic centimeter of air?

A. Limit, yes.

Q. And just to kind of put this in layman's terms, what the OSHA requirement required in plants, the general asbestos standard from 1972 to 1976, was that you could not exceed five fibers per cubic centimeter of air when it's averaged over the eight-hour working day; correct?

A. Yes.

Q. But you could, if you had a higher level than that, you know, that just happened once, like for a 15-minute period, that was called "the excursion limit"?

A. Yes.

Q. And that could go up to ten fibers per cubic centimeter; right?

A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014485

Neal

Q. And what you are telling us is that, as you recall, when the Calidria was used in this test run it did not exceed those limits?

A. Right.

Q. So it was somewhere below that.

A. Yes.

Q. But you just don't remember exactly what the figure was.

A. Yes.

(Luncheon recess: 12:35 p.m.)

1 Neal

2 A F T E R N O O N S E S S I O N

3 (1:36 p.m.)

4 W I L L I A M D O U G L A S N E A L ,

5 resumed, having been previously duly sworn,
6 was examined and testified as follows:

7 CONTINUED EXAMINATION

8 BY MR. BROWNSON:

9 Q. Now that we have come back from
10 lunch, Mr. Neal, I assume that you don't have any
11 further information as to what those air sampling
12 figures were at Bound Brook?

13 A. No, I don't attempt to memorize
14 numbers when there are so many, and after 24
15 years --

16 Q. Right.

17 A. -- they all melt together.

18 So I would like to avoid numbers that
19 there should be things in the record that would
20 have results.

21 Q. Let me ask you, you had mentioned
22 earlier Robert Cope, C-O-P-E --

23 A. Yes.

24 Q. -- is that right? Is Mr. Cope still
25 alive, as far as you know?

MANHATTAN REPORTING CORP.

UCAREF00014487

Neal

1

2

A. Oh, yes.

3

Q. Is he still at Union Carbide?

4

A. No, he is long retired.

5

Q. Where is he, in West Virginia?

6

A. He is in Hurricane, West Virginia.

7

Q. Hurricane?

8

A. Yes, Hurricane. It's about ten miles

9

west of -- it's between Huntsville --

10

Q. Huntington?

11

A. Huntington -- and South Charleston.

12

Q. I actually am a student of West

13

Virginia geography, so --

14

A. Oh.

15

MR. GERSON: Well, you didn't know

16

about Hurricane.

17

MR. BROWNSON: I didn't know about

18

Hurricane.

19

Q. Do you know James Rawlings,

20

R-A-W-L-I-N-G-S? Do you know who Mr. Rawlings

21

is?

22

A. R-A-W?

23

Q. Right.

24

A. Rawlings.

25

Q. Right, like the baseball glove.

MANHATTAN REPORTING CORP.

UCAREF00014488

1 Neal

2 A. No. I knew a Rawlings who was a
3 plant foreman.

4 Q. No, he is a more recent industrial
5 hygiene official at Union Carbide.

6 A. No, I don't.

7 Q. Okay. Now, during the course of your
8 employment at Union Carbide, from '72 to '85,
9 when you were the director of industrial hygiene
10 at the Bound Brook plastics plant, plastics
11 facility --

12 A. Yes.

13 Q. -- you are aware of the fact, I take
14 it, that the OSHA asbestos standard changed over
15 the course of years; correct?

16 A. Yes.

17 Q. And one of the changes that took
18 place is the permissible exposure level, I guess
19 what they call the PEL for asbestos in the air,
20 that was reduced from time to time; correct?

21 A. Yes.

22 Q. Do you recall that the first --
23 after the first one was set up, in '72, we have
24 talked earlier that that was five fibers per
25 cubic centimeters of air over an eight-hour

Neal

time-weighted average?

A. Right.

Q. I am just talking about the eight-hour one now.

A. Yes.

Q. And then, as I understand it, in '76 that was reduced to a lower level?

A. Yes.

Q. Do you recall what that level was?

A. Down to two.

Q. Do you recall what the next reduction was after that?

A. Not exactly; other than they have talked in terms of one-and-a-half.

Q. You mean .5?

A. .5; right. But I don't know just when that was promulgated.

Q. Well, let me ask you this. By the time you retired from Union Carbide, in 1985, do you recall what the eight-hour time weighted average was at that point for asbestos exposure in the air?

A. In 1985?

Q. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014490

1 Neal

2 A. I can't say for sure.

3 Q. Would it be fair to say, though, that
4 it was a level below two fibers per cubic
5 centimeter --

6 A. It would be.

7 Q. -- of air. With respect to air
8 monitoring at the Bound Brook plastics plant,
9 from '72 to '85, was this done on a regular
10 schedule?

11 A. Yes.

12 Q. For instance, quarterly?

13 A. It depended on the particular air
14 contaminant that we were working on.

15 Q. Well, I am just interested at this
16 point in asbestos.

17 A. Oh. It was at intervals of -- I
18 would say, nearly weekly intervals.

19 Q. Were you ever asked by anyone at
20 Union Carbide to contribute any information or
21 documents or expertise in connection with any
22 comments that Union Carbide was submitting to
23 OSHA with respect to, you know, the rule making
24 of this asbestos standard?

25 A. No, I had no input in the rule making

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UCAREF00014491

Neal

process; I left that up to the experts.

Q. And who were those experts at the time, from '72 to '85?

A. The toxicologists.

Q. Can you give me the names of the Union Carbide toxicologists who you remember --

A. No.

Q. -- were involved with asbestos issues?

A. No, I don't remember any particular name.

Q. Okay. Let's look -- our court reporter has marked some exhibits, which are laying on the table here, and I wanted to look first at Exhibit Number 12. So why don't we get that. I wanted to ask you to look at that, Mr. Neal.

And just take a moment here, and let's try to read it. It's handwriting, so it takes a little while to go over it.

A. "Retirees" --

MR. WILL: Wait. Wait just a second.

Q. You don't have to read it aloud.

MR. BROWNSON: I just wanted him to

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UCAREF00014492

1 Neal

2 look at it before I ask questions.

3 MR. WILL: Can we establish whether
4 he has seen it before or knows anything about it
5 before we question him about it?

6 MR. BROWNSON: Well, we will, but I
7 wanted to give him a moment to look at it
8 before --

9 A. I can't --

10 MR. WILL: Wait.

11 A. I can't read it.

12 MR. WILL: I'm sorry, you say you
13 can't read it?

14 A. Well, seriously, it deals with
15 the "mortality rate 2.4 times expected" --
16 chrysotile used --

17 MR. WILL: Just read it to yourself.

18 A. Okay.

19 Q. First of all, have you ever seen this
20 before?

21 A. I have never seen it before.

22 Q. Do you know who John J. Welsh, M.D.
23 is?

24 A. The name is familiar, as a doctor in
25 the corporate group.

MANHATTAN REPORTING CORP.

UCAREF00014493

Neal

Q. He would be a physician in the corporate medical department at New York, which I believe was in New York City?

A. I believe so.

Q. The corporate medical department I mean of Union Carbide --

A. Yes.

Q. -- that was in New York City?

A. Yes.

Q. Do you recall ever meeting Dr. Welsh?

A. No.

Q. Do you recognize the handwriting here as that of Dr. Welsh or anybody else?

A. No, I don't recognize the writing.

Q. At the top, the writing reads "Asbestos file". Do you know what asbestos file that refers to?

A. No.

Q. Now, again, as you have noted, the handwriting is hard to read. But the first line appears to say "Mortality experience".

Do you see that?

A. Yes.

Q. Do you know what mortality experience

MANHATTAN REPORTING CORP.

UCAREF00014494

Neal

they might be talking about here?

A. No, it refers to retirees.

Q. Oh, where do you see that?

MR. GOLDMAN: Next line.

Q. Oh, I see "1,348 retirees".

MR. WILL: "Dash asbestos industry."

Q. It seems to say "dash asbestos industry".

A. Yes.

Q. And you don't know what that reference is to; do you?

A. No.

Q. Are you in the course of your work, even up to the present time, or through the time you were with Amoco, did you ever have occasion in connection with your work to see asbestos mortality data of the sort that we see described here?

A. I recall reading articles, newspaper articles, reporting on asbestos and naming mortality rates, but I don't remember what the conditions were or what the articles pertained to, other than asbestos industry and mortality rates.

MANHATTAN REPORTING CORP.

UCAREF00014495

Neal

Q. In connection with your work at Union Carbide, from 1972 to 1985, did you become familiar with the different asbestos fiber types?

A. Familiar in what way?

Q. Well, let's start out by just saying did you understand there were different asbestos fiber types?

A. Yes.

Q. Do you recall what understanding you had at that time, going back in the 1972 time period, as to the different asbestos fiber types?

A. They had different PEL's assigned.

Q. And this was in the ACGIH?

A. Yes.

Q. Ratings --

A. Right.

Q. What do you call that?

A. American Conference of Governmental --

Q. I'm sorry, I called it a "rating", it's not a standard.

What's the word I want to use there, for what these --

A. "Permissible exposure limit."

MANHATTAN REPORTING CORP.

UCAREF00014496

Neal

Q. "Permissible exposure limit"?

A. "PEL", generally a "TWA".

Q. That means time-weighted average?

A. Yes.

Q. So you have a permissible exposure limit and it's measured, if you will, over a time-weighted average over eight hours?

A. Yes.

Q. Right. And what you are saying is the American Conference of Governmental Industrial Hygienists had different rankings depending on the different kinds of asbestos?

A. Yes.

MR. WILL: "Different PEL's", you mean.

MR. BROWNSON: Right.

Q. It had a different permissible exposure limit for some different kinds of asbestos?

A. Yes.

Q. Right, okay. Now, can you recall what the different kinds of asbestos were that they had different permissible exposure levels for?

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UCAREF00014497

Neal

1 A. Well, the one that comes to mind
2 mainly is amosite, because that had the lowest
3 PEL.
4

5 Q. And by "lowest PEL", that means
6 permissible exposure level was lower for amosite
7 than for other things?

8 A. Yes.

9 Q. Do you remember that chrysotile
10 asbestos was one of those fiber types?

11 A. That was one of them.

12 Q. Do you recall whether chrysotile
13 asbestos had a permissible exposure level set out
14 in the ACGIH booklets?

15 A. I believe it did.

16 Q. And did you understand at the time
17 that a permissible exposure level, as described
18 by the American Conference of Governmental
19 Industrial Hygienists, was a level they
20 essentially were saying that, over an eight-hour
21 working day, you don't want workers exposed to
22 levels over that?

23 A. That was my impression.

24 Q. In other words, you should keep the
25 asbestos airborne levels under that permissible

MANHATTAN REPORTING CORP.

UCAREF00014498

Neal

exposure --

A. Yes.

Q. -- level.

And chrysotile asbestos had one of those permissible exposure levels assigned to it?

A. Yes.

Q. Going back to this Exhibit 12 we were just looking at, do you know the years during which Dr. Welsh was a member of the medical department at Union Carbide?

A. No, I do not.

Q. Do you know, is he still there?

A. I don't know.

Q. Do you know if he is still alive?

A. No, I don't know.

Q. What I would like to look at next is the -- actually, the first exhibit on the top of our pile there, which is exhibit --

MR. BROWNSON: What, Trevor?

MR. WILL: 1.

MR. BROWNSON: Okay.

Q. Let's look at Exhibit 1. And, again, take a moment and just -- you don't have to read this, you know, carefully, but let's just take a

1 Neal

2 moment, and you can take a look at it and then I
3 will ask you some questions.

4 MR. WILL: Well, maybe he should read
5 it carefully. Exhibit 1 is actually one he
6 wrote.

7 MR. BROWNSON: Okay.

8 Q. Let's take a moment and read it
9 carefully, because I do have a number of
10 questions here.

11 Have you had a chance to look at
12 Exhibit 1?

13 A. Yes, um-hum.

14 Q. First of all, is this a report that
15 you authored?

16 A. Yes, it is.

17 Q. And, as you sit here today, do you
18 recall this report?

19 A. I recall it, yeah.

20 Q. It looks like this report was drafted
21 by you right around the time you began your new
22 duties as head of industrial hygiene --

23 A. Yes.

24 Q. -- at the Bound Brook plant facility?

25 A. (Nodding.)

MANHATTAN REPORTING CORP.

UCAREF00014500

1 Neal

2 MR. WILL: Wait until he is done.

3 Seriously, you know what he is going
4 to ask, but wait until he gets all the way to the
5 end.

6 MR. GOLDMAN: I am not sure there was
7 an answer to the question, but it was in the
8 middle of the question.

9 MR. BROWNSON: Did you get it?

10 THE COURT REPORTER: (Nodding
11 affirmatively.)

12 Q. The date of the report is November 8,
13 1972 and, as I understand it, you began your
14 duties as head of industrial hygiene in October
15 of 1972; correct?

16 A. Yes.

17 Q. This is described as "Union Carbide
18 internal correspondence". Is that what you would
19 call a memorandum or a letter? Or what is that?

20 A. It's a letter to all the managerial
21 people connected with the operation in
22 Bound Brook and, also, for the information of the
23 people in South Charleston.

24 Q. Now, let's just look and go through
25 this a minute.

MANHATTAN REPORTING CORP.

UCAREF00014501

1 Neal

2 First of all, you are shown on page 2
3 as the author of the letter. You signed it there
4 on page 2; right?

5 A. Yes.

6 Q. And it seems to be addressed to a
7 Mr. D.R. Albright?

8 A. Yes.

9 Q. Who is he?

10 A. He was the department head who had
11 charge of that particular operation.

12 Q. Was he the department head at
13 Bound Brook, New Jersey?

14 A. He was a department head. Each
15 operation had its own department head.

16 Q. Okay. And it's indicated here that
17 the originating department of this letter is
18 called Environmental Protection.

19 A. Yes.

20 Q. Is that right? Was that the name of
21 your department?

22 A. Yes.

23 Q. And then it says "Subject: Asbestos
24 dust measurements"; is that right?

25 A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014502

Neal

Q. Then it looks like, even though you are writing this letter to Mr. Albright, you are sending then a copy of the letter to a whole bunch of people here; is that right?

A. Yes.

Q. And are those people that are listed under Mr. Albright -- I see nine of them.

A. Three of them are superiors of Albright.

Q. Okay. I just want to try to figure out who these are.

The first one is Mr. R.W. Cope; is that Robert Cope?

A. Yes.

Q. It says "SC"?

A. South Charleston.

Q. He was the asbestos specialist, if you will, from South Charleston Union Carbide plant?

A. Yes.

Q. Did Mr. Cope help you with, you know, this, the things that are contained in this report?

A. I don't recall to what degree he was

MANHATTAN REPORTING CORP.

UCAREF00014503

Neal

involved in the report.

Q. Then there is another person listed here, Mr. N.L. Ketcham, K-E-T-C-H-A-M, he also appears to be from the Union Carbide plant at South Charleston, West Virginia; correct?

A. Yes.

Q. Is he one of the toxicologists?

A. He headed up the research section of industrial hygiene analytical methods.

Q. Then all of the other people listed here as getting copies of the letter have the initial "BB", and I assume that means Bound Brook?

A. Yes.

Q. So, are they then management people of one sort or another at the Bound Brook facility?

A. Yes.

Q. Now, the report starts out by talking about samplings in September and October of 1972 of Unit B and C work areas. What were the Unit B and C work areas?

A. They were the two production lines that produced the asbestos-type Bakelite,

1 Neal

2 phenolic molding material.

3 Q. And I assume that the asbestos that's
4 being used at the time these tests were done, in
5 September and October of 1972, was this
6 chrysotile asbestos from Carey; is that right?

7 A. Yes.

8 Q. So, this would not be a test when you
9 were using the Union Carbide Calidria chrysotile
10 asbestos?

11 A. Correct.

12 Q. Now, look at paragraph 1. Paragraph
13 1 appears to be talking about molding materials
14 mixer operators dust exposure, is that right,
15 asbestos dust exposure?

16 A. Yes.

17 Q. And it talks about "charging
18 asbestos". What do you mean there?

19 A. Dumping asbestos out of bags.

20 Q. So, paragraph 1 here, is this talking
21 about the workers who are dumping the asbestos
22 out of the bags into the hoppers that we talked
23 about earlier?

24 A. Yes.

25 Q. And it says that their asbestos

Neal

exposure, as measured, did not exceed six fibers per cubic centimeter of air; right?

A. Yes.

Q. And at that time, just so we are clear, the OSHA limit was ten fibers per cubic centimeter of air if it was 15 minutes or less and five fibers per cubic centimeter of air over the eight-hour working day?

A. Yes.

Q. So it looks like what happened, what we see in paragraph 1, is that, according to the measurements you report, these people dumping the bags of chrysotile asbestos were getting an eight-hour-time-weighted average concentration of asbestos in the air somewhere under five or under three fibers per cubic centimeter of air --

A. Yes.

Q. -- over the eight-hour day; right?

A. Yes.

Q. So you were within the standard of five fibers there, is that correct?

A. Yes.

Q. Okay. And then they were getting

1 Neal

2 about six fibers per cubic centimeter of air for
3 short periods of time, and you were within the
4 standard of ten fibers there?

5 A. Yes.

6 Q. Correct. Now, who was doing the
7 measuring here?

8 A. Who actually performed the tests?

9 Q. Right.

10 A. I performed some of them, and I
11 assume but I don't know for sure whether Mr. Cope
12 assisted me or ran some of those tests.

13 Q. When you say you "performed them",
14 did you set up the pumps, whether they were on
15 the man or the area pump --

16 A. Yes.

17 Q. -- and handled the filters and that
18 sort of thing?

19 A. Yes.

20 Q. And calibrated the pumps?

21 A. Yes.

22 Q. Once the air test was done, just so
23 we are clear, as I understand it, you have got a
24 little pump which is (indicating) run by an
25 electric motor and that sucks air through a

Neal

filter on a little canister of some sort; right?

A. Yes.

Q. And as the air -- a certain volume of air is sucked through that filter, correct?

A. Yes.

Q. And that's measured, you can measure that and report it, and then, if there are asbestos fibers in that air, the idea is they get stuck on the filter and that the filter can then be taken and analyzed under a microscope to measure how many asbestos fibers you see; is that right?

A. Yes.

Q. Now, I guess the first thing that needs to be done is the pump is set up and calibrated so it's running at the proper speed and such?

A. Yes.

Q. Once the filter then is calibrated -- or once the pumping is complete and you have got a filter that then would have the asbestos fibers on it, is that filter taken off and then put under the microscope and you look at it and count fibers?

1 Neal

2 A. It's removed from the canister.

3 Q. Okay.

4 A. And then it is cut, pieces are cut
5 out of the circular filter and a piece is
6 selected and placed on a microscopic slide and
7 drops of a microscopic medium are dropped on that
8 piece of paper to render it transparent, so that
9 you can see through the microscope the fibers
10 that have been collected.

11 Q. And you say you did some of that work
12 yourself, and Mr. Cope might have done some of
13 it?

14 A. Possible.

15 Q. Now, had you received some training
16 in this technique of setting up the pumps and
17 calibrating the pumps and pumping the air and
18 removing the filters and cutting them and looking
19 at them under the microscope?

20 A. Yes.

21 Q. Where had you received that training?

22 A. In the four days of working with
23 Mr. Cope.

24 Q. Is this when he came up to
25 New Jersey?

Neal

A. In New Jersey.

Q. So he came up and gave you that training and said: Here's how you do this.

A. Yes.

Q. Did you have a little laboratory there, at Bound Brook, New Jersey, where you would do this work?

A. Yes.

Q. And what magnification did you use on the microscope to measure or to look for the asbestos fibers?

A. As I recall, it was -- I believe 4,000 -- 400, 400 times.

Q. And was this what is known as a phase contrast --

A. Yes.

Q. -- microscope?

A. Yes.

Q. For us laymen, that's I guess a little bigger and more expensive but -- than we remember from chemistry class, but it's the kind where you actually look in the microscope and you see the little slide --

A. Yes.

Neal

Q. -- underneath it, right? Okay.

A. And do you remember, were you measuring fibers of a certain size and a certain dimension or were you measuring any fibers?

A. We measured those that exceeded five microns in length.

Q. And --

A. We counted them.

Q. Counted them; right.

A. And if you saw a fiber that was under five microns in length, let's say it was three microns in length, you would not then count that fiber; correct?

A. Normally not.

Q. Was there a cutoff that you used right at five or did you have a little leeway each direction?

A. There was a scale on the lens which enabled you to measure the length of the fiber.

Q. Do you recall, on this asbestos that you would look at under the microscope on these filters, what proportion of the total fibers would be over five microns in length compared to the proportion that was under five microns in

Neal

length?

A. I will have to ask you to repeat that.

Q. Okay. Do you remember, when you were looking under the microscope, doing this counting of asbestos fibers, what proportion of the fibers were over five microns in length and what proportion were under five microns in length?

A. They were essentially all over five microns.

Q. And you would count each one of them?

A. Right.

Q. Do you know what the resolution power of your microscope was? In other words, what's the smallest thing it could see?

A. I would say one micron.

Q. Now, let me ask you this; if you had a fiber that was five microns in length but had a diameter of half a micron, could your microscope pick that one up?

A. It would pick it up, but it would not measure the .5 that you mentioned.

Q. Okay. So, in order to measure something, you need at least one micron more or

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UCAREF00014512

1 Neal

2 less under that microscope?

3 A. I would have to plead ignorance on
4 this because of the 24-some years, I couldn't
5 really give you an accurate answer.

6 Q. Okay. Then, I am looking at
7 paragraph 2 here -- oh, first of all, going back
8 to the end of paragraph 1, it says: "When proper
9 precautions are followed in the dumping and
10 put-away of empty bags," and here we are talking
11 about the asbestos bags; right?

12 A. Yes.

13 Q. Then you continue and write: "it
14 appears that airborne concentrations can be
15 maintained below the two-fiber per cc eight-hour
16 TWA limit to be effective July 1, 1976." Do you
17 see that?

18 A. Yes.

19 Q. And when you say "TWA limit", you
20 mean the time-weighted average -- this is this
21 eight-hour limit?

22 A. Yes.

23 Q. Now, when you made that statement,
24 were your measurements at that point under two or
25 were you saying if we are just a little more

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UCAREF00014513

Neal

careful in our cleanup we can get them down to under two?

A. I would say they are below two or the statement would not be truly --

Q. Okay. Well, let me -- that's not really a fair question.

Let's go to the third page of the exhibit, because the actual numbers are there, so you don't have to -- we don't have to guess on these.

But are these the numbers we are talking about, for October of 1972, airborne asbestos dust measurements?

A. Yes.

Q. Okay. I am looking at the mixer man sample, these would be the measurements taken on the personal sample on the mixer man; right?

A. Okay.

Q. And is this the man who is dumping the bags in the hopper?

A. Yes.

Q. So, with respect to the eight-hour sample for the man dumping the bags in the hopper, we have got six measurements, and they

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UCAREF00014514

Neal

range from 1.2 fibers, at the lowest, to 2.4.

A. Okay.

Q. Right? And I actually did some math and averaged it out, and I got as an average of all those 1.85. Does that sound about right?

A. It looks correct.

Q. But, in any event, as of October of 1972, the men dumping the asbestos from the bags into the hopper had eight-hour exposures to the asbestos dust shown in six different tests that you report here; correct?

A. Yes.

Q. And the six results are 2.1 fibers, 1.2, 1.2, 2.4, 2.3, and 1.9; correct?

A. Yes.

Q. Now, going back to what you were saying there, in 1976, you were reporting that the OSHA standard was going to be lowered for the eight-hour standard from five fibers down to two; right?

A. Yes.

Q. And you said once that happens, in 1976, we can keep -- we can get under that if we are careful.

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UCAREF00014515

1 Neal

2 A. Yes.

3 Q. Right? And these figures, I
4 guess -- is what you are saying that these
5 figures, even though a couple of them are over 2,
6 showed that you could get under it because some
7 of them were under 2?

8 A. Yes.

9 Q. So is that what you meant when you
10 said, you know, with careful handling we can get
11 them under 2?

12 A. Yes, with careful handling.

13 Q. Now, would the converse be true, if
14 there wasn't careful handling these figures
15 would show you that they could go over two, as
16 well?

17 A. They could go over two.

18 Q. Then, if you look at paragraph 2,
19 back in your letter, it says: "Although the
20 third floor operation appears "clean" by our
21 measurements, there are conspicuous situations
22 which could provoke citations under the "general
23 duty" clause if observed by the compliance
24 officer."

25 Do you see that?

Neal

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A. Yes.

Q. Now, what are you talking about there, can you describe that for us?

A. We are talking about the general duty clause.

Q. That's in the OSHA regulations, right?

A. Yes.

Q. Can you describe for us again, kind of in layman's terms, what the general duty clause in the OSHA regulation was at that time?

A. It is a sort of a catchall used by OSHA compliance officers, if they do not have sustaining data but, by appearance of the workplace, they feel that the limits could be exceeded, then they invoke the general duty clause.

Q. So, are you saying there that an OSHA inspector could come and he might not actually be taking the detailed air measurements but he might look around and see broken bags or dustiness and say: Well, I don't have the actual data but this looks dirty to me so I am going to invoke the general duty clause?

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UCAREF00014517

Neal

A. Yes.

Q. Now, in your experience, going back to the time you were the head of industrial hygiene, from '72 to '85, would the OSHA inspectors do that when they came into the plant? Would they get after you under the general duty clause or would they instead, you know, take the measurements and do that careful measurement?

A. They would -- I do not recall being cited under the general duty clause. It was somewhat held over your head as a possibility.

Q. So, would it be fair to say that, what you are saying here is, even though your air measurements control your -- under the OSHA standard, within the OSHA standard for asbestos, if the area looked dirty to an OSHA inspector he could say: I don't care what your measurements show, it looks dirty, I am going to invoke the general duty clause and cite you?

MR. GERSON: You are asking is that a legal possibility?

A. Would you ask that again?

1 Neal

2 Q. Let me put it another way.

3 In your experience, did you have a
4 concern that the OSHA inspector might ignore the
5 actual data that you had and say: Well, it looks
6 dirty to me so I am going to invoke the general
7 duty clause.

8 MR. WILL: Bob, I want to interpose
9 here, I think you ought to clear up first
10 whether, as of November 8, he had ever been
11 through an OSHA inspection. The context of what
12 he may have learned through 1985 doesn't have
13 much to do with what he wrote on November 8.

14 MR. BROWNSON: That's a good point.

15 Q. In November of '82, had you ever --

16 MR. WILL: '82 or '72?

17 MR. BROWNSON: '72.

18 Q. Let's start over.

19 When you wrote this letter, on
20 November 8 of 1972, had you been through an OSHA
21 inspection at that point in the plant?

22 A. Yes.

23 Q. And, again, on this paragraph 2,
24 would it be fair to say that you were concerned
25 that some OSHA inspector might say: I don't care

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UCAREF00014519

1 Neal

2 what your measurements show, it looks dirty to me
3 and I am going to invoke the general duty clause?

4 A. And the question to me?

5 Q. Okay, let me rephrase it.

6 Were you concerned that an OSHA
7 inspector might say: I think it looks dirty and
8 I, OSHA inspector, am going to invoke the general
9 duty clause, even though the air measurements
10 show that you are within the limit?

11 A. Yes.

12 Q. So, would it then be fair to say that
13 you really were telling Mr. Albright that you
14 needed to do two things; number one, you needed
15 to keep your air measurements actually under the
16 OSHA limit and, number two, you had to keep the
17 place looking clean?

18 A. Yes.

19 Q. Then, after that, Mr. Neal, there is
20 some underlining, looks like with a pencil or pen
21 on this particular memo, that I didn't do, we got
22 it this way; do you know who did that or how that
23 got on there?

24 A. No, I do not.

25 Q. Then, down at the very bottom, there

1 Neal

2 is a bunch of writing, and one of the things it
3 says, someone has written "Deposition Exhibit
4 Number 14", on May 14, 1987.

5 Do you see that?

6 A. Yes.

7 Q. Do you know where that came from?

8 A. No, I do not.

9 Q. Do you know if this could have been a
10 deposition exhibit in that other deposition you
11 were telling us about this morning?

12 A. I don't know, it could have.

13 Q. But you don't know one way or the
14 other?

15 A. No.

16 Q. Do you remember ever reviewing this
17 particular letter in any other deposition?

18 A. I don't remember.

19 Q. Now, continuing on in paragraph 2,
20 you write: "It is recommended that departmental
21 programs aimed at these items be intensified, not
22 only to improve our margin of safety, but also to
23 improve the morale of operators, some of whom see
24 sources of asbestos contamination as a threat to
25 their health despite the measurements taken."

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UCAREF00014521

1 Neal

2 Do you see that?

3 A. Yes.

4 Q. And had that been your experience at
5 the time you wrote the letter, that some of the
6 men were worried about asbestos exposure, even
7 though your measurements showed that you were
8 within the OSHA level?

9 A. Yes.

10 Q. And, again, is this kind of part of
11 this union concern we had talked about this
12 morning?

13 A. It could be.

14 Q. Do you recall, for example, ever
15 getting any actual complaints from the union
16 about, you know, the men are worried about the
17 asbestos exposure?

18 A. I don't recall that type of
19 complaint.

20 Q. Then you talk about the situations
21 are as follows, and you list four different
22 things on page 1 and 2 of the letter.

23 Do you see that?

24 A. Yes.

25 Q. And the first thing that you list, as

1 Neal

2 items that could be worked on, is the handling of
3 the empty asbestos bags; is that right?

4 A. Yes.

5 Q. You were concerned there that there
6 was dust associated with the handling of these
7 asbestos bags; right?

8 A. Yes.

9 Q. And you say: "This remains a visible
10 dusting problem."

11 What did you mean by that?

12 A. I can only remember that it must have
13 referred to possible visible dust from the empty
14 bags.

15 Q. Then the second thing you list, over
16 on the top of page 2 of your letter, number B, is
17 called "Condition of incoming asbestos bags".

18 (Discussion off the record.)

19 Q. Do you see that, what I am referring
20 to as "B"?

21 A. Yes.

22 Q. You call that "Condition of the
23 incoming asbestos bags".

24 And, again, is that what we were
25 talking about earlier?

Neal

A. Yes.

Q. Make sure that the bags, as they come in the railcars and are brought into the plant by the forklift operators, don't get torn and broken?

A. Yes.

Q. Then you say there, you write: "The palletized packages of asbestos bags are prone to being torn open from loading, shipping, and subsequent handling in our plant." Was that something you had observed at that time or had people told you that?

A. Observation.

Q. Then you write: "The condition appears to have improved during recent sampling, evidently the result of attention to this problem." Right?

A. Yes.

Q. Now, has any of the sampling which is attached to this particular letter taken place in connection with the unloading of the bags?

A. I would say no.

Q. There is something called "Asbestos loading". Is that the unloading of the bags or

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UCAREF00014524

1 Neal

2 is that, you know, the asbestos going into the
3 hopper?

4 A. Where do you find --- oh, I see.

5 Q. On the end there.

6 A. That pertains to the amount of
7 asbestos --

8 Q. Oh.

9 A. -- in the overall mix.

10 Q. Oh, okay. I got you.

11 So, we don't have any actual data
12 with this letter which shows what the air
13 measurements were during the unloading of
14 asbestos from the railcars and bringing it into
15 the plant on the forklifts?

16 A. Correct.

17 Q. But would it be fair to say that what
18 you are reporting here is that in some prior
19 sampling before this it was worse and now, you
20 know, the men are taking more care and now the
21 air measurements have gotten better with respect
22 to that operation?

23 A. Yes.

24 Q. Then you write: "Close monitoring
25 must be maintained to avoid spillage of asbestos,

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UCAREF00014525

Neal

not only in the third floor area but in the warehouses and areas traversed by persons not aware of or protected from exposure to asbestos." Is that right?

A. Yes.

Q. And by that did you mean that if, for instance, they are bringing a forklift pallet load of asbestos bags into the plant and some are torn and some of the asbestos has spilled out into the floor, that people could walk through it and kick up and stir up dust and that sort of thing?

A. Yes.

Q. Is that something that you had observed happening from time to time?

A. I did observe it, I can't say how often.

Q. Then the third thing you list, letter "C", is called "Work habits of operators" -- or "Work habits of personnel"; right?

A. Yes.

Q. And the first thing you write there is: "Operators have been observed using the air hose that hangs by the wall between Units B

Neal

and C to blow dust from their clothing and gloves."

A. Yes.

Q. You write: "Obviously, this fills the area with a cloud of dust"; right?

A. Yes.

Q. Now, is your concern there that you don't want them blowing asbestos dust around with the air hoses; correct?

A. Yes.

Q. Did you ever take a measurement, you know, using your air pumps and the microscope, of the levels of airborne dust that would be generated when people were blowing the dust around with an air hose?

A. No, for obvious reasons.

Q. Well, I mean, why was that? I don't know. What were the obvious reasons?

A. It would mean I would have to set up that situation and ask a man to do something which he was required not to do.

Q. And you didn't want him doing it because you recognized that that could create a hazardous situation, blowing all that asbestos

Neal

dust?

A. Exactly.

Q. And, as you note here, you write: "Obviously, this fills the area with a cloud of dust."

Is that something you had actually observed or is that something the men would report to you?

A. I would -- I observed it.

Q. Then you said -- now we are talking about November of 1972, you report in your letter that one operator was observed dumping asbestos without wearing his respirator; right?

A. Yes.

Q. Now, at this point, in November '72, is this after the requirement went into effect that the men wear the respirators when they are dumping asbestos from the bag into the hopper?

A. I presume so.

Q. In other words, you had told us this morning it was optional and then it went to being mandatory?

A. Yes.

Q. This must be during the mandatory

Neal

period?

A. Mandatory.

Q. And it appears that this particular operator was observed by you dumping in the asbestos without wearing his respirator, and you write he was claiming that -- an "inability to breath through the "Dustfoe" respirator"; right?

A. Yes.

Q. So, basically, what happened is this man was observed not wearing his respirator and you asked him: Why aren't you wearing it, and he said: Because I have a hard time breathing through this thing?

A. Yes.

Q. And that's described as a "Dustfoe", D-U-S-T-F-O-E, respirator.

Is that a particular brand of respirator?

A. It's a particular type of respirator.

Q. Do you remember that being a Dustfoe

66 --

A. I don't remember the numbers.

Q. Going back to your time in the plant, from '72 to '85, was this a problem that happened

Neal

on other occasions, where the men would not wear their respirators and they claimed they were uncomfortable or hot or it was inconvenient or they couldn't breathe?

A. I would have to know to what degree you are referring to, whether it would be one man out of 50 or more --

Q. Okay.

A. -- out of 50.

Q. Let me ask a different question.

Did this ever happen on any other occasion, other than this one time you describe in your letter, that you can remember that a man was supposed to have a respirator on and he didn't?

A. It was more of an excuse for not wearing a respirator.

Q. Okay. Again, going back to those years, if you recall, was the company having a difficult time getting the men to wear these respirators at all times when they were supposed to?

A. Depends on your definition of "difficult".

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UCAREF00014530

1 Neal

2 In the course of training, it became
3 less difficult, and we selected more comfortable
4 respirators and the problem was handled
5 accordingly.

6 Q. Did there ever come a time, from '72
7 to '85, when Union Carbide imposed any sort of
8 rules or regulations about the men smoking in the
9 work areas?

10 MR. GERSON: Which men?

11 MR. BROWNSON: The workers in the
12 plastics plant.

13 A. In my experience, they were never
14 allowed to smoke in any work areas.

15 Q. Okay.

16 A. In fact, even in the production zone
17 overall there was no smoking allowed.

18 Q. Did it ever come to your attention at
19 any point, while you were at Union Carbide, that
20 smoking and asbestos exposure together could
21 increase risk of health problems?

22 A. Yes.

23 Q. Did you ever hear the term used of
24 "synergism" or "synergistic effect" --

25 A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014531

Neal

Q. -- in that regard. And what did you understand that to be about?

A. Well, essentially, two plus two makes five. The sum of the ingredients or the individual's actually total more than the arithmetic sum you might say. I am not putting it very well.

It's simply that one type of exposure will exasperate the effect of the other type of exposure.

Q. And, with respect to asbestos exposure, did you understand that it was a belief of medical opinion that if you were exposed to both asbestos and you smoked your risk was much higher because you were doing the two things together?

A. Yes.

Q. Then the final item of the four items numbered "D", on your letter, is called "General housekeeping"; right?

A. Yes.

Q. Now, is this what you were talking about earlier, your concern under the general duty exception of the OSHA rules, where, you

Neal

know, regardless of what the sampling showed you needed to keep it clean or the inspector could cite you?

A. Yes.

Q. Were steps then taken to clean up this accumulation of dust on equipment ledges and in corners that you were noting here in the letter?

A. Yes.

Q. So, in other words, in November of '72 you were noting that, even though the floor was swept frequently, there were accumulations of dust on equipment ledges and in corners that made it look dusty and dirty?

A. Yes.

Q. And that ought to be cleaned up; right?

A. Yes.

Q. But you shouldn't use air hoses to do that?

A. Exactly.

Q. Or you shouldn't use dry sweeping to do that?

A. Yes.

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UCAREF00014533

1 Neal

2 Q. Okay. Then, down below that on page
3 2, under number 3, you are talking about airborne
4 asbestos concentrations on the first floor and in
5 the area of what you call "charge rolls". What
6 are "charge rolls"?

7 A. They are the rolls I described
8 previously that receive the raw mix and apply
9 heat and friction and mechanical mixing to melt
10 the resin and homogenize the mix.

11 Q. And you note that, even though your
12 air measurements showed the concentration of
13 asbestos in the air to be at 1.4 fibers per cubic
14 centimeter in the September samples, you still
15 wanted the operators -- or the operators --
16 you were reporting the operators should be
17 encouraged to wear their respirators during
18 malfunctions?

19 A. Yes.

20 Q. And what are you talking about there?

21 A. During malfunctions?

22 Q. Right. I mean, I am just trying to
23 understand what you are describing here.

24 A. If something happens and they have to
25 reach underneath the rolls, for some reason, that

Neal

the conveyer is not taking the product away, then they have to shovel that back up onto the top of the rolls, using a coal shovel.

Q. Okay. So, the roll is this machine that takes the -- this resin and heats it up and turns it into the kind of gooey hot material; right?

A. Yes.

Q. And if there is a malfunction in that process, then some of the coal resin falls to the floor and the man has to take the coal shovel and shovel it back up; is that what we are talking about?

A. Yes.

Q. And you were concerned that that could be dusty and, so, they should be encouraged to wear a respirator during that?

A. Yes.

Q. Is it the asbestos dust that you were concerned about in that regard?

A. Mainly the asbestos dust.

Q. Did you ever get any air measurements of air levels of asbestos during that sort of malfunction when the men had to shovel it?

Neal

A. Not that I recall.

Q. Then if you go down in paragraph 4 here, on page 2 of your letter, you are talking about another potential concern with respect to the general duty exception of the OSHA regulation; is that right?

A. Yes.

Q. And, basically, what you are saying here is there is another dust source, that may or may not even be asbestos, it might be asbestos or it might not, in this Tote Bin, T-O-T-E, Bin filling station at Unit C; is that right?

A. Yes.

Q. Now, what was that? What's a "Tote Bin filling station"?

A. Tote bins were very large metal containers (indicating) that were nearly six feet high and roughly four feet square. They were bulk containers, and the filling of those containers sometimes resulted in spilling some of the product into the area which could cause dusting.

Q. And your concern was whether or not there were heavy levels of asbestos dust released

1 Neal

2 from that, this is the kind of thing that would
3 look bad to an OSHA inspector and he could hit
4 you with the general duty exception; is that
5 right?

6 A. No, I wasn't concerned about -- you
7 said "asbestos dust" --

8 Q. Right.

9 A. -- in the area, and that was not my
10 concern.

11 I didn't consider there was any
12 asbestos dust at that point.

13 Q. Okay.

14 A. It was generally the nuisance dust
15 which could have been construed by a compliance
16 officer as containing asbestos, and not knowing
17 the process.

18 Q. And when you talk about "nuisance
19 dust", what do you mean by that?

20 A. Inert-type dust.

21 Q. So, a "nuisance dust" is some dust
22 that's not asbestos and it's --

23 A. Correct.

24 Q. -- not kind of a harmful material,
25 but it's dust nevertheless?

MANHATTAN REPORTING CORP.

UCAREF00014537

Neal

1
2 A. Yes.

3 Q. So, it's described as "nuisance
4 dust"?

5 A. Yes.

6 Q. So that means, I guess, that asbestos
7 dust is something more than a nuisance --

8 A. Yes.

9 Q. -- right? Then the very very end of
10 your letter, on page 2, it says: "Future plans
11 call for additional sampling during production of
12 high asbestos products to further measure
13 sources"; right?

14 A. Yes.

15 Q. So, it sounds like you were going to
16 do some more sampling at this point?

17 A. Yes.

18 Q. And was this the kind of accumulated
19 data base of samples --

20 A. Yes.

21 Q. -- under the new OSHA asbestos
22 standards?

23 A. Yes, it was.

24 Q. And then it says: "We have arranged
25 for a visit on November 13th by an industry

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UCAREF00014538

Neal

consultant, Mr. W. Bradley"; right?

A. Yes.

Q. Now, is this William Bradley?

A. I believe so. I don't remember exactly.

Q. He was from somewhere in New Jersey, I forget where.

A. Yes.

Q. And he was like an independent industrial hygienist who did air measurements for asbestos, among other things; right?

A. Yes.

Q. And you described him as having a wide experience in asbestos testing?

A. Yes.

Q. Right? And it sounds like what you wanted is to have this outside consultant, William Bradley, come in, do his tests, and then kind of compare them with your tests to see how they compared?

A. Yes.

Q. Was that ever done?

A. Yes.

Q. And how did his tests compare with

Neal

your tests?

A. We had trouble correlating -- or comparing them, they did not compare to our satisfaction.

Q. And what was the non- -- what was the problem there; were his higher or were his lower or what?

A. I don't really recall.

Q. Okay.

A. But they were not good checks.

Q. Did he prepare any report for you or for the company, for Union Carbide, about his test results?

A. I believe he did, or should have, but I don't remember at this point.

Q. Did he make any recommendations, that you can recall, in terms of testing or what should be done to, you know --

A. Yes, he did.

Q. What were those recommendations?

A. The one that I remember, even now, was to incorporate the disposal of the empty bags into the ventilated hood so that they would at all times be under a reduced pressure, and

1 Neal

2 that would prevent any dust from entering the
3 room.

4 Q. Now, we talked earlier that -- about
5 the Union Carbide Calidria asbestos that was used
6 to some extent in these trial runs in '73 to '75;
7 correct?

8 MR. WILL: He said one trial run --

9 MR. BROWNSON: Right.

10 MR. WILL: -- that took place
11 somewhere between that time period.

12 MR. BROWNSON: Right.

13 Q. Did you ever have any contact with
14 any Union Carbide people in connection with
15 helping them design labelling or materials or
16 literature with respect to the Calidria asbestos?

17 A. No.

18 MR. WILL: Bob, could we stop for
19 just a second?

20 MR. GERSON: It is just about 2:45.

21 (Recess taken, during which time
22 Mr. Will and Mr. Goldman left the deposition room
23 and did not return.)

24 Q. Mr. Neal, I would like you to look at
25 the next exhibit, which has been marked as

Neal

Exhibit 2.

MR. BROWNSON: Now that I have been yelled at by Wendy, I will identify it a little more closely as a trip report of December 7, 1972, entitled Trip report NIOSH, which is NIOSH course on sampling and evaluating airborne asbestos, U.S. Department of HEW, Cincinnati, Ohio.

Do you see that?

A. Yes.

Q. And it appears that what we have is Mr. J.E. Neff went to a NIOSH training course in Cincinnati in connection with measuring airborne asbestos dust on November 20th through 22nd, 1972; is that right?

A. Yes.

MR. GERSON: Do you want to give Mr. Neal a moment to look through it?

THE WITNESS: It's not necessary, I am familiar with it.

MR. BROWNSON: Okay.

MR. GERSON: Okay, go ahead.

MR. BROWNSON: And I don't have a lot of questions about it.

1 Neal

2 MR. GERSON: If we need it, we will
3 take time then.

4 MR. BROWNSON: Okay.

5 Q. So, again, it looks like Mr. Neff --
6 now, he was an employee at the South Charleston,
7 West Virginia Union Carbide research and
8 development department, is that right --

9 A. Yes.

10 Q. -- at that time?

11 A. Yes.

12 Q. Was he an individual who worked for
13 Mr. Ketcham?

14 A. Yes.

15 Q. So, it looks like what Mr. Neff is
16 doing here is reporting to Mr. Ketcham about his
17 trip out to this asbestos dust counting training
18 course?

19 A. Yes.

20 Q. And, then, it appears that what
21 Mr. Neff has done is he wrote up a report about
22 things he learned at the training course and then
23 wrote it to Mr. Ketcham and then sent copies to
24 all the different Union Carbide industrial
25 hygiene people like you out at the different

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UCAREF00014543

Neal

Union Carbide locations.

A. Yes.

Q. Is that right? Okay. Because I note that, if you go to the last page of the exhibit, he has something called a distribution list, and it's got a whole bunch of names on it, and I see that you are listed as one of those people who got this; right?

A. Yes.

Q. And you are listed as "Mr. W.D. Neal 312", and I assume "312" is a company number for the Bound Brook, New Jersey facility?

A. Correct.

Q. Oh, okay. Now, let me just ask you a couple more questions about this distribution list.

Here I see, for instance, Mr. Robert Cope. He is the second person listed; right?

A. Yes.

Q. And "511", is that the research ---

A. That's the tech center, the research and development at South Charleston.

Q. So it looks like the people from the tech center who got this are Mr. Cope, Mr. Guest,

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UCAREF00014544

Neal

G-U-E-S-T; right?

A. Yes.

Q. Mr. Hurley, H-U-R-L-E-Y?

A. Yes.

Q. And Mr. Neff, I guess he sent a copy to himself. Mr. Szabo, S-Z-A-B-O --

A. Yes.

Q. -- Mr. Taylor and Mr. Williams.

A. Yes.

Q. Now, are those all names that you recognize or not?

A. Yes, they are.

(Pause in proceedings.)

Q. We were looking, Mr. Neal, at the distribution list on the back of the Neff memorandum.

A. Yes, sir.

Q. And what is the designation "512"? What does that stand for?

A. Well, that would be another -- either a plant location or a laboratory.

Q. Because I note that here is --

A. Bob Peele.

Q. -- Mr. Peele; right?

Neal

1

2

A. 512.

3

4

Q. That's the Mr. Peele we talked about earlier?

5

A. Yes.

6

7

Q. Then, also, up toward the top, the fourth man down is Dr. C.U. Dernehl.

8

A. Yes.

9

10

Q. That's that Dr. Dernehl I mentioned earlier.

11

12

But that doesn't ring a bell with you?

13

14

A. Not really. Only the name sounds familiar, but I don't recall having met him.

15

16

17

18

19

Q. Now, at some point, following December 7, 1972, it appears that the Union Carbide people, and probably including you, changed their asbestos air measuring protocol a little bit --

20

A. Yes.

21

22

Q. -- in conformance with this NIOSH training; is that right?

23

A. Correct.

24

25

Q. So, would it be fair to say that at some point on or after December 7, 1972 you began

1 Neal

2 following the NIOSH protocol for measuring
3 asbestos in the air --

4 A. Yes.

5 Q. -- and counting the fibers?

6 A. Yes.

7 Q. And, as you think back on it and
8 recall, did that change in any way the way your
9 counts were coming out?

10 A. No.

11 Q. So they stayed about the same because
12 these were kind of small changes?

13 MR. GERSON: Because what are small
14 changes?

15 Q. The changes in technique from NIOSH.

16 A. No noticeable changes, no.

17 Q. Now, one thing Mr. Neff says, at the
18 bottom of page 1, under the heading Discussion,
19 he says there were two reasons for his attendance
20 at the NIOSH course; one was to determine if
21 Union Carbide's laboratory method for asbestos
22 sampling and counting is in agreement with
23 NIOSH's method.

24 Do you see that?

25 A. Yes.

1 Neal

2 Q. And then he says the second
3 reason "was to ascertain how our fiber counts
4 would compare with counts made by NIOSH
5 personnel."

6 Do you see that?

7 A. Yes.

8 Q. And then he says unfortunately we
9 were not able to do that; right?

10 A. Yes.

11 Q. Do you have any information or did
12 you obtain any information as to how the Union
13 Carbide counts were comparing with how counts by
14 NIOSH people were being made?

15 A. No, I have no recollection of direct
16 comparisons having been made.

17 Q. Now, other than the comparison with
18 your own counts at the Bound Brook plant, and
19 Mr. William Bradley's counts at the Bound Brook
20 plant, are you aware of any other side-by-side
21 comparisons that were done over the years with
22 Union Carbide asbestos airborne counting, you
23 know, and that of anybody else?

24 A. No, the only comparisons I made were
25 directly with Mr. Cope during the training

Neal

session.

Q. One thing that I wasn't clear on, when the OSHA inspectors would come and they would look at the issue of the OSHA asbestos standard and decide whether you were in compliance with these airborne asbestos limits, would they do their own sampling or would they look at your sampling data?

A. When they came in to --

Q. To the Bound Brook plant.

A. To do what?

Q. To do an inspection. In other words, if they were looking at the asbestos question, would they actually set up pumps and do their own sampling or would they say: We want to see your data?

A. They would set up their own sampling.

Q. And would they ever then disclose to you what their results were?

A. If I requested them.

Q. And did you do that?

A. I don't remember the individual cases.

There were very few tests run by

Neal

OSHA.

Q. Can you remember any instance where you requested to see the OSHA asbestos airborne dust counts?

A. Yes, I believe there were. But, again, I can't remember the instances.

Q. Did you ever -- let me ask you this. When OSHA would do their own airborne asbestos dust documenting at your plant at Bound Brook, did you ever then, you know, set up a pump and do your own side-by-side with theirs --

A. Yes.

Q. -- to keep them honest, so to speak?

A. Yes.

Q. And did you ever get a chance then to compare how your counts compared to OSHA's counts?

A. Again, my memory may fail me, but I believe in one instance I did have the opportunity to compare with the OSHA inspector or state inspector, but I cannot remember which.

Q. Do you remember how that comparison -- what the results of the comparison

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UCAREF00014550

1 Neal

2 were? Were the two the same or was one higher or
3 lower?

4 A. I don't really remember.

5 Q. Let me direct you to the bottom of
6 page 2 of Mr. Neff's memorandum, and he talks
7 about some of the more significant questions that
8 were asked at the NIOSH training session and the
9 instructor's comments.

10 Do you see that?

11 A. Yes.

12 Q. And one of the questions that
13 somebody asked at the training session is: "Are
14 individual fibers in a bundle of asbestos fibers
15 counted separately?" And, apparently, the NIOSH
16 training instructor said: "No. A bundle of
17 fibers is counted as one fiber." Is that the way
18 you read that?

19 A. Correct.

20 Q. Now --

21 MR. GERSON: You were asking him is
22 that how he reads it on the paper?

23 MR. BROWNSON: Right.

24 Q. Now, going back to your own
25 experience under the microscope counting fibers,

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UCAREF00014551

Neal

do you know what they mean by an "asbestos bundle" or a "bundle of fibers"?

A. Yes.

Q. And what would that be?

A. As termed, a "bundle" would consist of several fibers, individual fibers, could be as many as a hundred individual fibers, but all bound up very much like wires in an electric cable.

Q. Kind of in a clump wound together?

A. Yes.

Q. And that was something which you would describe as an "asbestos fiber bundle"?

A. Yes.

Q. Was it your practice, then, to count that as one fiber?

A. Yes.

Q. And had that been your practice before you saw this memorandum?

A. Yes.

Q. Have you ever heard the term "fibril", F-I-B-R-I-L?

A. Yes.

Q. And did you make any distinction,

1 Neal

2 when you were doing counting, between "fibers"
3 and "fibrils"?

4 A. No, I would have considered any
5 fibril as a fiber.

6 Q. Were you ever aware that there were
7 certain fibers or fibrils of asbestos that had
8 such thin diameters that you actually couldn't
9 see them under a light microscope?

10 A. You mean under a normal light
11 microscope?

12 Q. Right.

13 A. Yes.

14 Q. And, obviously, if you can't see it
15 you can't count it --

16 A. Yes.

17 Q. -- right? So -- well, let me ask
18 you this. Did you ever do or have done for you
19 any electron microscope analysis of any of your
20 samples of airborne asbestos?

21 A. No.

22 Q. Do you know if that was done by
23 anyone at Union Carbide from any of the other
24 locations?

25 A. I would have no knowledge of that.

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UCAREF00014553

1 Neal

2 Q. Were you familiar with an electron
3 microscope that was available to Union Carbide
4 either in Niagara Falls or Tarrytown, New York at
5 their facility there?

6 A. I was not familiar with that.

7 Q. Then, again on Mr. Neff's memorandum,
8 the question number 2 at the top of page 3,
9 apparently some attendee at the conference
10 asked: "Are fibers in an agglomerate",
11 A-G-G-L-O-M-E-R-A-T-E, "counted?" What's an
12 "agglomerate"?

13 A. It would be a cluster of fibers all
14 of which are touching one or the other rather
15 than individual fibers.

16 Q. So, kind of like a big clump?

17 A. Mass.

18 Q. Mass, okay. And it appears that the
19 answer to this question was this was more or less
20 a matter of individual judgment by the individual
21 microscopist?

22 A. Yes.

23 Q. What was your practice when you would
24 see a clump or a mass or agglomeration of fibers,
25 how would you count that?

Neal

1
2 A. I would move to another spot on the
3 slide.

4 Q. That raises a question. Now, when
5 you are counting fibers under the microscope, the
6 microscope is of course at 400 magnification, so
7 it's magnifying, and you can't count every fiber
8 on the slide; right, is that right?

9 A. Correct.

10 Q. You would just count fibers in a
11 certain area that you knew how big that was?

12 A. In the field, yes.

13 Q. In the field, right. And, I mean, I
14 guess it would be difficult, if not impossible,
15 to count them all because you would sit there for
16 hours and hours and it would take you forever?

17 A. It would be impossible, you would
18 never know if you had counted them all or not.

19 Q. So what you did, then, is you had a
20 field of the area you see in the microscope and
21 you just count in a certain area of the field or
22 in the whole field?

23 A. You have in the field a superimposed
24 grid, and you count the fibers that are within
25 the boundaries of that grid.

1 Neal

2 So when they talk about looking at so
3 many grids or so many fields, that's what they
4 are talking about.

5 A. Now, did you ever attend one of these
6 NIOSH asbestos air measuring and counting
7 courses?

8 A. Not that I recall.

9 Q. And we have been using this term
10 "NIOSH", that's a contraction or acronym for
11 something called the National Institute of
12 Occupational Safety and Health; is that right?

13 A. Yes.

14 Q. And that's a government group,
15 kind --

16 A. Yes.

17 Q. -- of affiliated with OSHA in some
18 way?

19 A. Yes, it is.

20 Q. And they are in Cincinnati, Ohio?

21 A. One of the NIOSH laboratories, yes.

22 Q. Did NIOSH ever send anybody out to
23 your plant to do anything?

24 A. Yes.

25 Q. What was that?

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UCAREF00014556

Neal

A. Vinyl chloride.

Q. So that had nothing to do with
asbestos?

A. Correct.

Q. The next exhibit I wanted to look at
has been marked Exhibit Number 3. And this one
is real hard to read, but I promise you it's --
they get better after this. So if we can work
our way through this, we will have clear sailing.

MR. BROWNSON: For the record, this
is a January 4, 1973 Union Carbide internal
correspondence from somebody named J.M. Swalm,
S-W-A-L-M?

A. Swalm, yes.

Q. And it's addressed to who; can you
tell?

A. R.A. DeCoudres, plant manager.

Q. D-E capital C-O-U-D-R-E-S?

A. Yes.

Q. Is he the plant manager then at
Bound Brook, New Jersey?

A. Yes.

Q. And then, again, copies of this were
sent to many people, one of whom was you; is that

Neal

right?

A. Yes.

Q. And it's talking about a number of things, including an OSHA inspection, but I want to move over to page 2. And there is a heading toward the top of the page called Airborne asbestos.

Do you see that?

A. Yes.

Q. That actually is a little easier to read, and I wanted to go through that and ask you some questions about that.

MR. GERSON: Then why don't we just take one moment to read it.

MR. BROWNSON: Okay.

MR. GERSON: Have you read it?

THE WITNESS: Oh, yes, I'm sorry.

Q. First of all, who was Mr. Swalm?

A. He is the head of the environmental protection department, of which I was a member.

Q. So he was the head of the Union Carbide department?

I mean, was he just at Bound Brook or --

Neal

A. Bound Brook.

Q. Okay.

A. He headed up the environmental and the industrial hygiene.

Q. So, you were the head of industrial hygiene but you were within the department of environmental?

A. Correct.

Q. What's it called, environmental what?

A. Protection.

Q. Protection, okay. And he was the head of the environmental protection at Bound Brook?

A. Yes.

Q. And he writes on the topic of airborne asbestos that: "Consultant Bradley's letter report on his Bound Brook findings raised some concern, but found little agreement, among plant personnel involved with the molding materials situation," and I am wondering what is the "molding materials situation"?

A. That's the family of Bakelite phenolic resins, mainly containing asbestos.

Q. So does this indicate, then, that

1 Neal

2 Bradley did issue a report? Looks like in the
3 form of a letter.

4 A. Yes.

5 Q. And when he says it "raised some
6 concern but found little agreement among plant
7 personnel," I am wondering, do you know what he
8 means by that?

9 A. No, I do not, at present.

10 Q. Then he writes: "Further monitoring
11 of airborne fibers in the working areas and
12 cross-checking of the slide counts will provide a
13 preponderance of data for settling the
14 controversial matter."

15 Do you see that?

16 A. Yes.

17 Q. Now, is he talking there, if you
18 know, about a controversy or a disparity in
19 results between Union Carbide's air monitoring
20 and Bradley's air monitoring or is he talking
21 about something else?

22 A. No, I rather think it was between the
23 slide counts, between my slide counts and his.

24 Q. And Bradley's?

25 A. Yes.

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UCAREF00014560

Neal

Q. So are you saying, then, there was no real controversy or dispute between the monitoring process itself, there was a difference in the counting, how you counted them and how Bradley counted them, counted fibers?

A. I don't know what the differences were, if there were real differences. I simply had no confidence in the results that we obtained from Bradley.

Q. Then it says: "In the meantime, concern has focused on product handling and the potential hazard in customer's operations."

Do you see that?

A. Yes.

Q. Are they talking there about a potential health hazard from airborne asbestos dust?

A. It appears that way.

Q. And then he continues: "and further downstream, emphasized by the inclusion of UCC as a co-defendant with other suppliers in a class action type lawsuit."

Do you see that?

A. Yes.

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UCAREF00014561

Neal

Q. Now, "UCC", that's Union Carbide Company?

A. Yes.

Q. Now, is this the loss that you were telling us about earlier arising out of these customers' plants who were using the Bakelite?

A. It could be. I simply don't remember whether that particular statement pertains to the matters that I participated in.

You might say that was beyond my realm, dealing with the end product, but I think -- beyond the end product, the customer's end product, let's say.

Q. And then he ends the paragraph by saying: "The EP Lab."

By that, does he mean environmental protection?

A. Yes.

Q. Was there an environmental protection laboratory at the Bound Brook plant?

A. Yes, there was.

Q. So, he says: "The EP Lab has evaluated several product samples specially

1 Neal

2 prepared by R&D to minimize airborne fibers
3 during handling."

4 Do you know what he is talking about
5 there?

6 A. I am trying to remember if that
7 involved material sold to customers who made
8 brake lining and whether or not their employees
9 would be exposed to asbestos.

10 Q. Do you remember that as an issue that
11 arose at some point along the line?

12 A. Yes.

13 Q. The brake lining?

14 A. Yes.

15 Q. Now, did your plant at Bound Brook
16 produce some materials that were used in brake
17 linings?

18 A. Yes.

19 Q. And what was that?

20 A. The asbestos products were the
21 products used in brake lining.

22 Q. So there would be -- the actual
23 asbestos brake lining material was one of the
24 products produced at Bound Brook?

25 A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014563

1 Neal

2 MR. GERSON: Just at Bound Brook as
3 an end product?

4 MR. BROWNSON: Well, I guess I am not
5 sure.

6 A. As the raw material, for the brake
7 lining --

8 Q. Okay.

9 A. -- company.

10 Q. So, you would -- and what was the
11 raw material called?

12 A. That was the Bakelite phenolic resin.

13 Q. So this was one of the uses of this
14 Bakelite phenolic resin that you produced at your
15 Union Carbide plant in Bound Brook, was brake
16 linings?

17 A. Yes.

18 Q. So you would sell it to brake lining
19 companies, brake companies?

20 A. Yes, exactly.

21 Q. Were these brakes for cars?

22 A. Cars, trucks, trains, any application
23 involving friction.

24 Q. Then it says: "Messrs. Albright and
25 Swalm reviewed the asbestos situation with

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UCAREF00014564

Neal

Mr. Graebert, chemicals and plastics safety director, to help clarify the plant's posture on this potential hazard to health."

Are they talking about there the brake linings?

A. They don't say. And I should not venture as to what they are talking about.

Q. Who is Mr. Graebert?

A. He was with corporate safety.

Q. So, he would be a Union Carbide safety man?

A. Union Carbide safety director.

Q. From the corporate office somewhere?

A. Yes.

Q. So he wasn't at Bound Brook, New Jersey, he was where?

A. Danbury, he was formerly at Bound Brook.

Q. Okay.

MR. GERSON: (Indicating.)

THE WITNESS: Oh, '73 --

A. Evidently, he was the chemicals and plastics safety director.

Q. And, just so we understand this here,

1 Neal

2 chemicals and plastics is a division of Union
3 Carbide or was at that time?

4 A. Yes.

5 Q. And was the Bound Brook plant, where
6 you were, within the chemicals and plastics
7 division?

8 A. Yes.

9 Q. So Mr. Graebert, kind of in simple
10 terms, was a Union Carbide chemical and plastics
11 division safety officer, and one of the things
12 within his jurisdiction was the Bound Brook
13 plant --

14 A. Yes.

15 Q. -- is that right?

16 A. Yes.

17 Q. Let's look, then, at Exhibit Number
18 4, which is our next exhibit.

19 MR. GERSON: 3-A was the next.

20 MR. BROWNSON: Oh, yes, sheet 3-A.

21 Q. So let's look at Exhibit 3-A.

22 I apologize, this is the last one
23 that's hard to read, after this they are all
24 clear. Let's just take them and look at that.

25 Let me know when you are --

Neal

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A. I am done.

Q. Okay.

MR. BROWNSON: First of all, for the record, this is a handwritten little report, or memorandum, dated January 26, 1973.

Q. Is that right?

A. Yes.

Q. And is this from you or is this to you?

A. To me, from a man named "E" --

Q. I think that's Kleber --

A. Kleber.

Q. -- K-L-E-B-E-R. Is that a name that you recognize?

A. No.

Q. Under Kleber, it says I think what is "Niagara"; is that right?

A. Yes.

Q. Now, do you recognize that designation, "Niagara"?

A. Yes.

Q. Is that with reference to Union Carbide's facility at Niagara Falls, New York?

A. I don't know. I assume that would

Neal

be.

Q. Union Carbide did have an office or facility at Niagara Falls, New York; right?

A. Yes.

Q. What was that?

Wasn't that kind of a testing or scientific laboratory --

A. I think so.

Q. It wasn't a production plant; was it? It was a --

A. I believe it was more of a laboratory.

Q. Right, okay. First of all, do you remember who Mr. Kleber was?

A. Now I remember, seeing this memo.

Q. Let me see if we can actually figure out what the memo says, if you can help me with this.

It appears to be addressed to you, D. Neal, correct --

A. Yes.

Q. -- from this Kleber at Niagara, which is the Union Carbide facility at Niagara Falls, New York; right?

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UCAREF00014568

Neal

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A. Yes.

Q. And it's on January 26, 1973?

A. Right.

Q. And it's addressed to you at Bound Brook, and it says "Subject: Dust counting"; is that right?

A. Yes.

Q. Then, I will try to read it here, and jump in if I am reading something wrong, it says: "Doug, here's a copy of" I think "this office's" --

A. "The official".

Q. Oh, "the official" -- let me stop. Can I ask you to try to read it?

A. Well, you are doing pretty well.

"Here's a copy of the official" --
hmm -- "notes for counting" --

Q. Is that "asbestos"?

A. "Asbestos".

Q. And I think that's "fibers"?

A. Could be, "fibers. Use it in good health."

Q. Okay.

A. Signed "Ed".

MANHATTAN REPORTING CORP.

UCAREF00014569

Neal

Q. Then, there is some much more legible writing below that. Is that writing from somebody else?

A. Yes.

Q. So, is that like a reply, then, from you?

A. Yes.

Q. So that's your writing on the bottom half of this?

A. Yes.

Q. And what do you say there?

A. "My readings on samples as follows:" And it gives three --

Q. Under that, you have essentially three columns of numbers, and the two left-hand ones say "Calidria", C-A-L-I-D-R-I-A; is that correct?

A. Yes.

Q. So, if I could try to interpret this, are you reporting concerning samples of Calidria asbestos fibers measured in the air?

A. Yes.

Q. And would this, then, be this measurement we talked about earlier, when you

Neal

were using -- "you" the Bound Brook plant, was using the Calidria asbestos for this trial run; is that what this is?

A. Yes.

Q. And, again, if I could interpret this, are you then reporting back to Mr. Kleber what your airborne asbestos dust samples showed, or some of them showed, during this trial run using the Calidria asbestos?

A. Yes.

Q. Now, under "Calidria", there is these two columns, and I am trying to read the first one; it says something "four minutes".

Do you know what that is? I think it says "first mix".

A. Could be "mix".

Q. And the next one says "Second mix three minutes".

Do you know what that means?

A. There were two batches made.

Q. Oh, okay. Two batches of plastic made using the Calidria asbestos.

A. Yes.

Q. So --

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UCAREF00014571

1 Neal

2 MR. GERSON: Plastic resin.

3 MR. BROWNSON: Right.

4 Q. During the first batch of plastic
5 resin that was made with the Calidria, it looks
6 like two samples of airborne asbestos dust were
7 counted, one by you and one by Mr. Kleber; is
8 that what we have got here?

9 A. It appears so.

10 Q. And then the same thing again
11 happened then during the second --

12 A. Yes.

13 Q. -- batch of resin using the Calidria
14 asbestos --

15 A. Yes.

16 Q. -- you counted a sample and he did.

17 Do you know if you each took samples
18 or did somebody take a sample and you each
19 counted them, asbestos fibers, under the
20 microscope?

21 A. As best I can recall, I personally
22 took the sampling along with Mr. Kleber.

23 Q. And then it looks like, did the two
24 of you then take turns counting the asbestos
25 fibers from the same sample?

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UCAREF00014572

1 Neal

2 A. That I don't remember.

3 Q. But, in any event, it looks like
4 you counted airborne asbestos fibers from one
5 sample and he counted airborne asbestos fibers
6 from either the same sample or a different
7 sample?

8 A. Yes.

9 Q. And during the first run, you know,
10 plastic making with the Calidria fibers, or
11 Calidria asbestos, you counted 1.2, and is that
12 1.2 fibers per cubic centimeter of air --

13 A. Yes.

14 Q. -- the first time, and then you
15 counted .9 during the second run; is that right?

16 A. Yes.

17 Q. And he got .5 fibers during the first
18 run and .7 during the second run?

19 A. Yes.

20 Q. Then there is a third column, it says
21 something "six minutes" and then another count.
22 Do you know what that says up there, like "7RFS"?

23 A. It appears to me that we also ran a
24 mix with "7RF9", is that? Which I assume would
25 be the standard Carey asbestos.

Neal

Q. And in that sample, it was run for six minutes; is that right?

A. Yes.

Q. Does that mean the air pump was run for six minutes?

A. Yes.

Q. Is that what we are talking about there?

A. Yes.

Q. So for the first sample using Calidria, the pump was run for four minutes; is that right?

A. Yes.

Q. The second sample using Calidria, the pump was run for three minutes; right?

A. Yes.

Q. And then the third sample, which was not Calidria but the standard Carey asbestos, was run for six minutes?

A. Yes.

Q. And, again, a counting was done on the third sample, and you got 3.1 and Mr. Kleber got 3.5 --

A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014574

1 Neal

2 Q. -- is that right? Okay.

3 Now, if I could try to summarize
4 these rates, and tell me if I am right or wrong,
5 when you were counting asbestos fibers in the
6 air, it looks like you counted higher than
7 Mr. Kleber when Calidria was used, but when the
8 Carey was used then your count was lower; is that
9 kind of a summary of how it came out?

10 A. Yes.

11 Q. Then you write: "My pumping rate was
12 two liters per minute. I assumed same for
13 yours."

14 Now, that kind of tells us, doesn't
15 it, that you each took your own sample in
16 addition to doing your own counting?

17 A. Yes.

18 Q. So it sounds like you must have set
19 up a pump and Kleber set up a pump and you each
20 took your own sample?

21 A. Yes.

22 Q. And then you each prepared your
23 filter and put it under a microscope and did your
24 own counting; is that right?

25 A. Yes.

1 Neal

2 Q. And then you tried to make sure that
3 you ran the same amount of air through your pumps
4 and over your filters?

5 A. Yes.

6 Q. And then you say: "Numbers are in
7 fibers per cc", and I guess that means what we
8 talked about earlier, that these results are in
9 fibers per cubic centimeter of air?

10 A. Yes.

11 Q. And then you say: "Your stuff sure
12 looks good. Hope it works in end product."
13 What's that? What does that mean?

14 A. Well, we hoped that we can use
15 Calidria in our product.

16 Q. Oh, okay. So when you say "stuff",
17 by "stuff" you mean the Union Carbide Calidria
18 asbestos?

19 A. Yeah.

20 Q. And is what you are saying there is
21 the airborne asbestos fibers from the Union
22 Carbide Calidria looks good because they are
23 lower than the other asbestos --

24 A. Yes.

25 Q. -- you had been using?

Neal

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A. Yes.

Q. Okay. And then you say: "Hope it works in end product." And by that you mean the plastic resin?

A. Yes.

Q. I think you told us earlier that, as it turned out, it didn't work in the end product --

A. Yes.

Q. -- is that right? So you didn't then use it?

A. Yes.

Q. Went back to the Carey asbestos?

A. Yes.

Q. Now let me ask you just a couple of other things about these airborne asbestos fiber counts that are reported here.

I assume that what you are reporting is counts of airborne asbestos fibers that are greater than five microns in length; is that right?

A. Yes.

Q. And, also, I guess it goes without saying that they have to be large enough in

1 Neal

2 diameter to be picked up under your microscope?

3 A. Yes.

4 Q. Right?

5 (Discussion off the record.)

6 MR. BROWNSON: I will just say, for
7 the record, that we are stopping for the day
8 here, and I had hoped to finish this deposition
9 of Mr. Neal, and I apologize to all of you that
10 we didn't. But it's not done, and we will
11 reconvene at some mutually-convenient time --

12 MR. GERSON: Okay.

13 MR. BROWNSON: -- to finish it.

14 MR. GERSON: Off the record.

15 (Discussion off the record.)

16 (Time noted: 4:08 p.m.)

17
18
19 _____
20 WILLIAM DOUGLAS NEAL

21
22 Subscribed and sworn to before me

23 this ____ day of _____, 1996.

24
25 _____
MANHATTAN REPORTING CORP.

UCAREF00014578

C E R T I F I C A T E

STATE OF NEW YORK)
COUNTY OF NEW YORK): ss.

I, WENDY D. BOSKIND, a Registered Professional Reporter and Notary Public within and for the State of New York, do hereby certify:

That WILLIAM DOUGLAS NEAL, the witness whose deposition is hereinbefore set forth, was duly sworn by me, and that such deposition is a true and accurate record of the testimony given by the witness.

I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 12 day of December 1996.

Wendy D. Boskind
WENDY D. BOSKIND, RPR

MANHATTAN REPORTING CORP.

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I N D E X

<u>Witness</u>	<u>Examination By</u>	<u>Page/Line</u>
William Douglas Neal	Mr. Brownson	5 16

Exhibits

Plaintiff's Neal 1, memo to Mr. D.R. Albright, dated November 8, 1972, from W.D. Neal, X414652 - X414654.....	3	2
Plaintiff's Neal 2, Trip report, dated December 7, 1972, five pages.....	3	7
Plaintiff's Neal 3, memo dated January 4, 1973, to Mr. R.A. DeCoudres, from J.M. Swalm, two pages.....	3	11
Plaintiff's Neal 3-A, handwritten document, X410715.....	3	16
Plaintiff's Neal 4, Material safety data sheet, one page, front and back.....	3	20
Plaintiff's Neal 5, Material safety data sheet, one page, front and back, September 1, 1972.....	3	24
Plaintiff's Neal 6, U001613, one page.....	4	4
Plaintiff's Neal 7, U004836, one page.....	4	7
Plaintiff's Neal 8, U004842, one page.....	4	10
Plaintiff's Neal 9, one page, "Chrysotile asbestos warning, cancer hazard".....	4	13
Plaintiff's Neal 10, Mellon Institute special report, 12 pages.....	4	17

1			
2	Plaintiff's Neal 11, Special report,		
3	Chemical Hygiene Fellowship, Mellon		
4	Institute, Carnegie-Mellon University,		
5	eight pages.....	4	21
6	Plaintiff's Neal 12, U005371, one page,		
7	handwritten note, John J. Welsh, M.D.....	5	2
8	Plaintiff's Neal 13, memo dated June 28,		
9	1984, from Richard G. Hanlon, and		
10	attachment, eight pages.....	5	6
11	Plaintiff's Neal 14, Mr. Neal's work		
12	history at Union Carbide.....	8	9
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COPY

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

IN RE: ASBESTOS PRODUCTS LIABILITY Civil Action
LITIGATION (NO. VI) No. MDL 875

This Document Relates To:

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MINNESOTA
FIFTH DIVISION

CONWED CORPORATION,

Plaintiff,

-against-

UNION CARBIDE CORPORATION,

Civil Action
No. 5-92-88

Defendant and
Third-Party Plaintiff,

-against-

OWENS-CORNING FIBERGLAS
CORPORATION, et al.,

Third-Party Defendant.

November 20, 1996
10:00 a.m.

Continued deposition of WILLIAM DOUGLAS

NEAL, taken by Plaintiff, pursuant to

adjournment, at the offices of Kelley Drye &

Warren LLP, 101 Park Avenue, New York, New York

10178, before Dominick M. Tursi, a CM, Certified

Shorthand Reporter and Notary Public within and

County of New York.

MANHATTAN
REPORTING CORP

132 NASSAU STREET • NEW YORK, N.Y. 10038 • (212) 267-2228

UCAREF00014582

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ALSO PRESENT:

JULIE STEWART

MANHATTAN REPORTING CORP.

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1
2 W I L L I A M D O U G L A S N E A L,
3 resumed, having been previously duly sworn,
4 having been reminded of his oath by the Notary
5 Public (Dominick M. Tursi), was examined and
6 testified further as follows:

7 CONTINUED EXAMINATION

8 BY MR. BROWNSON:

9 (Neal Exhibit 15 for
10 identification, document entitled Calidria
11 Asbestos, Union Carbide Corporation, Report of
12 Call; followed by a handwritten page entitled
13 Airborne Fiber Counts Conducted at Union Carbide
14 Corp.; followed by a written page with two
15 paragraphs of notes; followed by a 33-page
16 attachment).

17 Q. Good morning, Mr. Neal.

18 A. Good morning, Mr. Brownson.

19 Q. We are back. I sat in front of you a
20 minute ago what we had marked as Deposition
21 Exhibit No. 15, which is a clipped-together stack
22 of pages. And for the record, let me just count
23 them.

24 For the record, Exhibit 15 is 36
25 pages, and the cover page is entitled: Calidria

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UCAREF00014584

1 Neal

2 Asbestos, Union Carbide Corporation, PO Box
3 9799 --

4 MR. WILL: Wait a minute. He doesn't
5 have the document.

6 Q. -- zip code 14302. And under that it
7 says report of call. Date: 9/9 and 9/10/74.

8 Why don't I just continue for the
9 record to try to identify it.

10 Following that cover page which I
11 have just identified, there are then, there is
12 one handwritten page, entitled Airborne Fiber
13 Counts Conducted at Union Carbide Corp., Bound
14 Brook, New Jersey, May 2, 1974, and then there is
15 a secondhand written page with two paragraphs of
16 notes. And following that, there then are 33
17 pages which have things on the front and back
18 which are asbestos count record sheets.

19 (Discussion off the record.)

20 Q. Mr. Neal, now we are looking at this
21 Exhibit 15. And first of all, have you ever seen
22 this before?

23 A. I have not.

24 Q. Does this appear to be, at least from
25 what you can see, a report or compilation of

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UCAREF00014585

1 Neal

2 certain airborne asbestos dust sampling that was
3 done at the Union Carbide plant in Bound Brook,
4 New Jersey, in 1974?

5 A. Before I can answer that, you
6 mentioned plant. In my estimation we have a
7 plant and we have a research lab.

8 Q. Okay. Can you tell where these
9 airborne asbestos dust counts, which we see here
10 as described in Exhibit 15, were taken? Can we
11 tell if that's in the plant or in the research
12 lab?

13 A. Evidently taken from the research
14 lab.

15 Q. What shows you that?

16 A. Well, for one thing, I was not
17 familiar with this project, being mainly
18 concerned with plant industrial hygiene.

19 Q. So do you think, then, that if it had
20 been in the plant, it is more likely that you
21 would have seen this or been familiar with it?

22 A. I would have, yes.

23 Q. I wanted to see if you could help me
24 try to decipher some of what we see here. It
25 indicates -- well, first of all, it appears as

1 Neal

2 though this is someone from Union Carbide at
3 Niagara Falls who prepared this report, just
4 because it is on their letterhead.

5 Would that be a fair assumption?

6 A. I think so.

7 Q. Then it says, in the box where it
8 says interviewed, give full names and titles. It
9 lists not full names and titles, but an initial
10 and last time for two people. Do you know who
11 those are?

12 A. I don't recall.

13 Q. Okay. Then it says objectives. On
14 the handwritten note on the front page it says
15 determine amount of airborne asbestos fiber
16 generated during the mixing of RG-600 and
17 poly-something. Do you know what that is?

18 A. Polyethylene.

19 Q. Polyethylene. Okay. Then, if you
20 look back on the third page, which are these
21 handwritten notes, the third page of the exhibit,
22 it reads, at least as I read it: Objectives,
23 monitor airborne asbestos dust generated during
24 the make-up of high-density polyethylene
25 containing 30 percent Calidria asbestos RG 600.

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UCAREF00014587

1 Neal

2 Do I appear to have read that
3 correctly?

4 A. Yes.

5 Q. Then it says operation monitors. Do
6 you know what that means?

7 MR. WILL: I think it says
8 monitored.

9 Q. Oh. Monitored. Yes. Operation
10 monitored. I guess that's just what it says,
11 they were monitoring some operation. It looks
12 like they were monitoring a simulated
13 manufacturing process of the plastic. Does that
14 appear to be what they were doing here?

15 A. They were monitoring the dust during
16 an experimental run of some sort.

17 Q. Okay. Now, if we think back, last
18 week when we were taking your deposition the
19 first time in this case, you had described to us
20 how you remembered at some time in about the 1973
21 to 1975 time period during these trial runs with
22 the Calidria asbestos and the plastic --

23 MR. WILL: I would object, Bob. He
24 described something in the phenolic resin. This
25 is something different. This is polyethylene.

1 Neal

2 Q. Okay. Well, let me ask you this
3 question. Is what we see here on this Exhibit
4 15, does this appear to be a different operation
5 or situation or trial run than that phenolic
6 resin situation you told us about before, or is
7 this that thing you were thinking about, now that
8 you see it?

9 A. This is a different operation
10 altogether.

11 Q. Okay. So what you were telling us
12 the other day about the trial use of Calidria in
13 the phenolic resin and that they came and took
14 air samples, that was something different than
15 what we see here?

16 A. Yes.

17 Q. Now, this one talks about the use of
18 Calidria asbestos and the assimilated
19 manufacturing process for high-density
20 polyethylene. Is that what they are talking
21 about here?

22 A. I think so.

23 Q. Now, is that a product that was
24 manufactured at the Union Carbide plant at Bound
25 Brook, New Jersey?

Neal

A. Not to my knowledge.

MR. GERSON: Are we talking about high-density polyethylene, generally?

Q. Right. High-density polyethylene.

So does it appear, then, that what we see here is that someone in the research laboratory at Bound Brook was maybe, you know, experimenting or looking into some sort of high-density polyethylene manufacturing process? Is that what this seems to be?

A. I think so.

Q. And just to finish up here. This is not, then, apparently the air sampling that you were describing the other day. That was something else in the phenolic resin trial runs.

A. Yes.

Q. Okay. And I take it that since we were here about a week ago, you have not seen any reports or documentation, or haven't found any, dealing with those air samples?

A. Correct.

Q. Now, it sounds like you were not necessarily involved or weren't knowledgeable about what was necessarily going on in the

1 Neal

2 research and development at Bound Brook. Would
3 that be fair to say?

4 A. Yes.

5 Q. So when they are doing things like
6 this that we see in Exhibit 15, that really is
7 not something that you would be involved with at
8 all?

9 A. Correct.

10 Q. Did they have an industrial hygienist
11 who worked in the research lab or did they just
12 do their own industrial hygiene type work there?

13 A. They, as I recall, had their own
14 industrial hygienist I believe in the early '80s,
15 and I provided service in the late '70s.

16 Q. Let me ask you just a few more
17 questions while we are waiting for the exhibits.

18 Were you familiar with a gentleman at
19 Union Carbide named Harrison Rhodes?

20 A. Harrison Rhodes?

21 Q. Harrison Rhodes.

22 A. No.

23 Q. He did some industrial hygiene work,
24 I think, back more in the '60s and '70s.

25 A. Rhodes?

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UCAREF00014591

1 Neal

2 Q. Right. Rhodes.

3 A. It doesn't ring a bell.

4 Q. Okay. Once the OSHA standard came
5 into effect in 1972, the OSHA asbestos standard
6 that we were talking about before, in terms of
7 the Bound Brook plant was there some system that
8 was put in place for regular or annual medical
9 examinations of the employees? Did that have to
10 be --

11 A. During 1972?

12 Q. Well, or shortly thereafter.

13 A. It is my recollection that there was
14 some monitoring done prior to when I started the
15 industrial hygiene program.

16 Q. Okay. And then after you started the
17 industrial hygiene program, did that medical type
18 exam continue?

19 A. That continued.

20 Q. At least while you were there, was
21 there ever a time when those records were
22 collected and reviewed by anybody, any doctors,
23 whether they were company doctors or outside
24 doctors?

25 A. I have no knowledge of that.

MANHATTAN REPORTING CORP.

UCAREF00014592

1 Neal

2 Q. So you weren't involved in anything
3 like that.

4 A. Correct.

5 Q. I asked you before, and you have
6 answered, whether you were involved in --

7 MR. WILL: Excuse me, Bob. In that
8 last question, were you talking about somebody
9 from outside the plant coming in and --

10 MR. BROWNSON: Yes.

11 MR. WILL: -- as opposed -- because
12 I think he told you earlier that Dr. McKinley was
13 involved.

14 MR. BROWNSON: Okay. Well, let's
15 move on because that's not an important point
16 anyway.

17 BY MR. BROWNSON:

18 Q. I asked you before, we were talking a
19 little bit about OSHA submissions that may have
20 been made by Union Carbide, and you told us that
21 you weren't involved in that kind of stuff, where
22 they would submit material to OSHA with respect
23 to any changes in the OSHA rules. You were not
24 involved in that?

25 A. Would you mind repeating that?

MANHATTAN REPORTING CORP.

UCAREF00014593

Neal

1
2 Q. Okay. Yes. Let me preface it by
3 saying, when OSHA makes these various rules,
4 including their asbestos standard, which they
5 change from time to time, they have a period of
6 time when any interested party can submit
7 material to OSHA or give testimony to OSHA or
8 appear and, you know, testify; that sort of
9 thing. And I thought I had asked you this and
10 you had told us that you were not involved in
11 that sort of effort on behalf of Union Carbide.
12 Is that right?

13 A. That's correct.

14 Q. Okay. What I think I didn't ask you
15 is, were you ever asked by anyone in the company
16 to submit any data from the Bound Brook plant in
17 connection with any studies that were being done
18 on a company-wide basis by Union Carbide to
19 determine compliance with the OSHA asbestos
20 standard?

21 MR. GERSON: Could you repeat that
22 question.

23 (The record was read.)

24 A. I do recall we reviewed test results
25 with various governmental inspectors, both state

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UCAREF00014594

1 Neal

2 and federal.

3 Q. And when you say we, these would be
4 the test results at your plant at Bound Brook?

5 A. Yes.

6 Q. As far as you can recall, no one from
7 the company at Union Carbide said to you that
8 they were putting together some larger database
9 of the test results of all the different
10 locations?

11 A. I knew nothing of that nature.

12 Q. Did you ever have any involvement in
13 the preparation of material safety data sheets?

14 A. Yes, I have been.

15 Q. And you are familiar with material
16 safety data sheets?

17 A. Yes.

18 Q. What those are and the form they take
19 and that sort of thing?

20 A. Yes, I am familiar.

21 Q. Was your involvement with the
22 preparation of those, in terms of preparing them
23 for the products that were being manufactured at
24 Bound Brook, or was it for something else?

25 A. It was for something else.

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UCAREF00014595

1 Neal

2 Q. Did this occur while you were
3 employed at Union Carbide or was this something
4 you did in the later years when you were a
5 consultant?

6 A. Something I did as a consultant.

7 Q. Okay. Were you involved in the
8 preparation of caution labels or warning labels
9 for use to go on the products that were being
10 made at the plant at Bound Brook?

11 A. Involved to the extent of noting that
12 labels were applied.

13 Q. And what labels were applied? What
14 are we talking about there?

15 A. The labels required by OSHA to be
16 placed on containers of asbestos.

17 Q. And were those labels placed on
18 containers of the finished plastic products that
19 contained asbestos, or were those labels that
20 would be on the containers of the raw asbestos
21 coming into the plant for the manufacturing
22 operation?

23 A. They were placed on the containers of
24 the raw materials.

25 Q. Now, when you say they were placed

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UCAREF00014596

Neal

there, I assume, do you mean by that that you saw them there when the bag, or the containers came into your plants? In other words, you didn't put them on there. Or did you?

A. I can't recall, it's been so long ago. But I seem to recall that at one time during the adoption of the regulation, there were stickers placed on bags until the tags came in bearing the printed verbiage from the supplier.

Q. Okay. So are you saying, then, initially the bags that came in after OSHA actually had a sticker on them, and then later on they actually had an imprint label?

MR. GERSON: Are you asking if they came in with the sticker?

Q. That's what I'm trying to figure out.

Or are you saying that the bag came in, and then you put a sticker on them once they arrived?

A. I don't recall just who put the stickers on or exactly when; simply that during an interim period until the printing was set up, that stickers were used.

1 Neal

2 Q. Okay. And do you remember that those
3 stickers, and then later the imprints, were
4 contained on the bags of asbestos or the
5 containers of asbestos that came into the plant
6 as raw material?

7 A. On the containers of asbestos that
8 came in as raw material.

9 Q. And then how about the products that
10 went out of the plant?

11 A. Not on the product.

12 Q. That contained asbestos?

13 A. They were not on the product.

14 Q. Okay. I will jump ahead. And even
15 though I don't have the exhibits here, maybe we
16 can save some time because this one doesn't have
17 writing on it.

18 I will show you what we have marked
19 as Exhibit 9 and ask if that's a label that you
20 had ever seen on any of the Calidria asbestos
21 containers that came in during these experimental
22 trial runs.

23 A. I could not honestly answer that
24 because we are talking about --

25 Q. -- so long ago?

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UCAREF00014598

1 | Neal

2 A. -- so many years. And I saw so many-
3 labels, I don't recall just exactly what or when.

4 Q. Is this similar to labels you saw in
5 the containers of raw asbestos coming into the
6 plant in terms of the information that's
7 contained there?

8 A. I simply state as I did before: I
9 don't recall the exact language in these labels.

10 Q. Okay. I wanted to ask you about some
11 other people, and maybe I will do that now while
12 we are waiting for the exhibits.

13 I asked you at the last deposition if
14 you remembered someone named James Rawlings, and
15 I think you told us that you didn't.

16 A. James Rawlings?

17 Q. R-a-w-l-i-n-g-s.

18 | A. I don't know the gentleman.

19 Q. Okay. Let me do this. This might
20 help us because I wanted to ask some questions.
21 Let's mark another exhibit here, which we will
22 mark as Exhibit 16.

23 Let's take a moment because I have a
24 few more of these.

25 (Discussion off the record.)

1 Neal

2 (Neal Exhibit 16 for
3 identification, February 11, 1972, letter from
4 Mr. James Rawlings of Union Carbide Corporation
5 to the Office of Safety and Health Standards in
6 Washington, DC.)

7 (Neal Exhibit 17 for
8 identification, February 29, 1972 letter from
9 William N. Johnson, assistant to the product
10 general manager asbestos at Union Carbide Mining
11 and Metals Division, 270 Park Avenue, New York,
12 New York.)

13 (Neal Exhibit 18 for
14 identification, Statement of James W. Rawlings,
15 Vice President Mining and Metals Division, Union
16 Carbide Corporation, at the Hearing on Proposed
17 Asbestos Standards under the Occupational Safety
18 and Health Act, March 16, 1972.)

19 (Neal Exhibit 19 for
20 identification, letter of November 14, 1975, from
21 William C. Thurber, business manager, asbestos
22 metals division, Union Carbide Corporation, to
23 docket officer of the US Department of Labor.)

24 (Neal Exhibit 20 for
25 identification, April 9, 1976 letter from Mr.

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UCAREF00014600

Neal

Thurber to docket officer of the US Department of Labor.)

(Neal Exhibit 21 for identification, December 3, 1990 letter from Union Carbide, Health, Safety and Environmental Affairs, signed by Robert Plevan, with attachment.)

(Neal Exhibit 22 for identification, December 3, 1990 submission by Union Carbide to docket officer of the Occupational Safety and Health Administration.)

(A recess was taken.)

BY MR. BROWNSON:

Q. I have shown you now, Mr. Neal, what we have marked as Deposition Exhibit 16, which is a February 11, 1972, letter from Mr. James Rawlings of Union Carbide Corporation to the Office of Safety and Health Standards in Washington, DC. Do you see that?

A. Yes.

Q. Have you ever seen this letter before?

A. No.

Q. This is where I got that name James

Neal

Rawlings I was asking you about.

A. I see that.

Q. Does that help you remember who he was? He's called vice president, but I don't know of what.

A. I still don't know his identity other than as the person that wrote the letter.

Q. Okay. I want to draw your attention to paragraph, or, I'm sorry, to page 4 of the exhibit, the latter. And under No. 3, Mr. Rawlings has written a paragraph entitled Warning Signs. And in referring to the warning signs proposed by OSHA under the OSHA Asbestos Act, he writes: The warning signs proposed, seem excessively alarmist, and the warning and sign specifications are too detailed.

First of all, based upon your experience of seeing these asbestos labels, did you view the labels to be excessively alarmist or too detailed?

MR. GERSON: Which --

Q. The labels that we just talked about, on the bags.

A. Well, the labels on the bags were

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UCAREF00014602

Neal

fairly brief.

Q. Okay. Now, at Bound Brook, New Jersey, after the OSHA Act went into effect in '72, were you required to put up signs in the plant, talking about asbestos?

A. I don't recall that in the original. There could have been a requirement of that sort, but 20 years ago I just don't recall.

Q. Do you ever remember along the way, in the years after 1972, where signs were posted in the plant in areas where asbestos was being used, talking about some hazard or warning associated with the use of the asbestos?

A. I do recall there were some signs, I believe, that indicated cancer hazard at a later date. I couldn't say exactly when or where these signs were posted.

Q. Okay. But you do recall seeing them at some point along the line?

A. Yes.

Q. And in your view, did you consider the information on those signs to be excessively alarmist?

A. Excessively what?

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UCAREF00014603

Neal

Q. Alarmist?

A. Excessively alarming?

Q. Yes.

A. Again, we're talking 20 years ago, and I can't remember what my impression was then.

Q. Okay. Next I would like you to look at Exhibit No. 17, and what I will do is hand you these originals.

For the record, this is a February 29, 1972 letter from William N. Johnson, assistant to the product general manager asbestos at Union Carbide Mining and Metals Division, 270 Park Avenue, New York, New York.

Have you ever seen this letter before?

A. I have not.

Q. And Mr. Johnson here is writing again to the Office of Safety and Health Standards in Washington, DC, and he writes, the subject is public hearing March 14, 1972 on standards for exposure to asbestos dust. Do you see that?

A. Yes.

Q. And again he talks about how Mr. Rawlings is going to appear to make a statement.

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UCAREF00014604

Neal

Do you see that?

A. I do.

Q. The second paragraph, I want to draw your attention to that. Mr. Johnson writes: Mr. Rawling's statements will be concerned with the adverse economic impact of the proposed regulations on the asbestos operations of Union Carbide, and in particular the impact of any lower TLV, and then he goes on to talk about some other things.

But do you recall, now that you have seen this, whether there was any, anyone had come to you or talked to you at Bound Brook, New Jersey, about what the impact of the OSHA asbestos regulations might be on the business there?

A. I recall something in later years regarding whether or not warnings should be placed on containers of finished product.

Q. Okay. And was any decision made in that regard, as to whether to put warnings on the containers of finished products?

A. I don't recall really what the final decision was.

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UCAREF00014605

1 Neal

2 Q. Do you recall anything, during the
3 years beginning in 1972 and going out into the
4 later years, where there was any concern on your
5 part at Bound Brook that the threshold limits
6 values for asbestos could pose a problem in the
7 operations of that plant; in other words, you
8 might have trouble meeting them?

9 A. There was always a concern to
10 minimize the dust counts, but we were, in my
11 recollection, always ahead of the OSHA
12 regulation. Always lower.

13 Q. Do you remember when you began there
14 and around that time when the first OSHA asbestos
15 regulation came into effect that had the 5 fiber
16 per cc 8-hour average?

17 A. Yes.

18 Q. Dust counts? Do you remember at that
19 time part of the regulation was that in 1976 it
20 was going to go down to 2 fibers?

21 A. Yes.

22 Q. And did you have any concern at that
23 time whether your operations in New Jersey would
24 be able to get down to the 2 fibers within four
25 years by 1976?

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UCAREF00014606

1 Neal

2 A. We had no particular concern, that I
3 recall.

4 Q. And as you recall it, when 1976
5 occurred, were you able to get down below the new
6 standard of 2 fibers?

7 A. The product was discontinued by that
8 date.

9 Q. Now, which product was discontinued
10 by '76?

11 A. The product in which asbestos was
12 used.

13 Q. So are you saying, then, by 1976,
14 asbestos was not used any longer as an
15 ingredient?

16 A. Yes.

17 Q. In the rosin products?

18 A. The entire, if my memory is correct,
19 the entire product line was discontinued at Bound
20 Brook. The phenolic product line.

21 Q. Okay. Did the discontinuance of that
22 product line have anything to do with the fact
23 that it had asbestos in it?

24 A. I don't believe so. Most of the
25 products were nonasbestos products.

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1 Neal

2 Q. Next I want to look at Exhibit 18.
3 And for the record, this is a typed-up, 6-page
4 document which is entitled Statement of James W.
5 Rawlings, Vice President, Mining and Metals
6 Division, Union Carbide Corporation, hearing on
7 proposed asbestos standards under the
8 Occupational Safety and Health Act, March 16,
9 1972.

10 First of all, have you ever seen this
11 before?

12 A. I have not.

13 Q. Now what I want to do is direct your
14 attention to the last page of that, which is a
15 table which is attached here, and it is entitled
16 Experimental Data Asbestos Fiber Concentrations.
17 Do you see that?

18 A. I do.

19 Q. Have you ever seen this table before?

20 A. I have not.

21 Q. And do you know, or can you tell from
22 looking at this, where these different samples
23 were taken?

24 A. It appears that they were taken at
25 possibly five work stations.

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A. Well, they indicate that they are at a customer's plant.

A. It doesn't say that, but in each of work stations, they are typical of cators, customers' plants.

A. Yes.

A. I would say so.

Q. Into some operation like what you were talking about the other day at Bound Brook?

1 Neal

2 A. Yes.

3 Q. And then it says they did six tests,
4 took nine samples, and their fiber count of
5 fibers greater than 5 microns in length was 1.3
6 to 11.5. Do you see that?

7 A. Would you repeat that statement?

8 Q. Oh, yes. The fiber count was in a
9 range of 1.3 to 11.5 fibers greater than 5
10 microns in lengths.

11 A. Yes.

12 Q. Is that right? Okay.

13 A. Yes.

14 Q. And then they report the average of
15 those as 3.9. Do you see that?

16 A. Yes.

17 Q. Now, does this help you recall, was
18 this in line with the types of measurements that
19 you recall at Bound Brook in terms of when you
20 were emptying bags?

21 MR. GERSON: Or --

22 Q. Emptying bags of asbestos into the
23 hoppers that you had told us about?

24 MR. WILL: For the Calidria or for
25 the Carey?

1 Neal

2 MR. BROWNSON: I'll first start
3 asking on any of it; any of the asbestos.

4 A. It is really difficult for me to
5 compare this scant information with what I tested
6 at the Bound Brook plant.

7 Q. Okay. And with respect to the
8 asbestos, emptying the bags into the hoppers of
9 the asbestos, whether it is the Carey asbestos or
10 the Calidria at Bound Brook, I'm not asking for
11 exact measurements, but are these the types of
12 measurements that you recall? In other words, is
13 this the range of measurements that you recall
14 there?

15 A. Again, I have no way of knowing how
16 these numbers were arrived at, by what test
17 methods or circumstances.

18 Q. Okay. Well, if you look at the
19 bottom, it's written, it appears to be saying
20 that they are measuring only fibers greater than
21 5 microns in lengths. Is that right?

22 A. Yes.

23 Q. And then it says standard sampling
24 and counting procedures by a certified industrial
25 hygienist from Union Carbide's industrial

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UCAREF00014611

Neal

medicine and toxicology department. Do you see that?

A. Yes.

Q. And I don't want to go over old ground that we talked about already, but would it be, is what we are talking about here a certified industrial hygienist that came out of the toxicology department out in West Virginia? Is that who these people are?

MR. WILL: Objection. He doesn't know who these people are. You're asking him to guess.

Q. I'm not asking for the exact people. Let me put it a different way.

Were they, say, industrial hygienists from Union Carbide's industrial medicine and toxicology department?

You don't know who the person is, but I'm wondering, where would that person be coming from? Is that this thing in West Virginia or is that somewhere else?

A. I could not really say. Industrial hygiene service was provided from more than one geographical location.

1 Neal

2 Q. Okay. So when reference is made to
3 Union Carbide's industrial medicine and
4 toxicology department -- and this is 1972,
5 remember, the date of the statement -- that
6 doesn't help you to determine, you know, where
7 that department was or who these people would
8 be?

9 A. Exactly.

10 MR. WILL: Bob, remember, it has a
11 March of '72. He wasn't even working in that
12 department.

13 MR. BROWNSON: Right. I understand.

14 Q. Do you have any reason to believe
15 that if these were the data that were obtained by
16 a certified industrial hygienist from Union
17 Carbide's industrial medicine and toxicology
18 department, that there would be anything wrong or
19 inaccurate about them?

20 A. No. The footnote appears to
21 substantiate the data as being obtained according
22 to proper procedures, to my knowledge.

23 Q. Next I would like you to look at
24 Exhibit No. 19. And this is a letter of November
25 14, 1975, from William C. Thurber, business

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1 Neal

2 manager, asbestos metals division, Union Carbide
3 Corporation, to the docket officer of the US
4 Department of Labor in Washington, DC. Is that
5 what it says?

6 A. I see that.

7 Q. And his subject is occupational
8 exposure to asbestos. Correct?

9 A. Yes.

10 Q. Have you ever seen this letter
11 before?

12 A. I have not.

13 Q. Do you know who Mr. Thurber was or
14 is?

15 A. It says here, business manager of
16 asbestos.

17 Q. But did you ever meet him or did you
18 know who he was?

19 A. No.

20 Q. And again, with respect to the
21 subject of this letter, do you have any
22 independent recollection or information of your
23 own about the new asbestos standard, apparently
24 in 1976, which is being commented upon here?

25 A. I don't quite understand your

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UCAREF00014614

Neal

question.

Q. Okay. Well, it appears to me that Mr. Thurber or somebody from Union Carbide is going to submit some comments in connection with new asbestos standards in 1976. And I'm just wondering if you have any independent recollection of your own of those activities that were being done.

A. No, I don't, other than what the OSHA regulations require.

Q. You do know that in 1976 the change actually took place with the OSHA asbestos standard; the new one did go into effect, lowering it from 5 fibers down to 2 fibers per cc?

A. Yes.

Q. Next let's look at Exhibit 20, and I will ask you if you have ever seen that before.

For the record, this is an April 9, 1976 letter, again from Mr. Thurber to the docket officer.

MR. GERSON: With a very big attachment, right?

MR. BROWNSON: Well, I actually

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1 Neal

2 marked that as an additional exhibit but it does
3 say that -- I don't know that it says that's an
4 attachment or not.

5 MR. WILL: Can we go off the record
6 for just a second?

7 MR. BROWNSON: Yes.

8 (Discussion off the record.)

9 Q. My question to you, Mr. Neal, is,
10 have you ever seen this letter or memorandum
11 before?

12 A. I have not.

13 Q. Now, Mr. Thurber writes, down in the
14 third paragraph, that a presentation is being
15 submitted on what he calls this date, April 9,
16 1976, incorporating by reference the position
17 expressed in the presentation of the Asbestos
18 Information Association of North America. Do you
19 know what that organization is?

20 A. No, I do not.

21 Q. Next let's look at the exhibit which
22 is -- Exhibit 20-A? Excuse me. Off the record.

23 (Discussion off the record.)

24 MR. BROWNSON: Let's mark 20-A.

25 (Neal Exhibit 20-A for

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1 Neal

2 identification, document entitled Presentation to
3 the Occupational Safety and Health
4 Administration, United States Department of
5 Labor, consisting of 12 numbered pages.)

6 Q. We have now shown you Exhibit 20-A,
7 which has 12 numbered pages, which is six pieces
8 of paper written on the front and back. It is
9 actually seven pieces of paper because there is a
10 cover sheet and then there are twelve numbered
11 pages. It is entitled Presentation to the
12 Occupational Safety and Health Administration,
13 United States Department of Labor, in regard to
14 the notice of proposed rule making occupational
15 exposure to asbestos on behalf of Union Carbide
16 Corporation April 9, 1976.

17 My question is, have you ever seen
18 this document or report before?

19 A. It doesn't look familiar to me.

20 Q. Go to the first page, page No. 1,
21 where it says introduction. And they are talking
22 about the Union Carbide asbestos mine in Central
23 California. Do you see that?

24 A. Yes.

25 Q. That's the Calidria asbestos, as you

MANHATTAN REPORTING CORP.

UCAREF00014617

Neal

understand it?

A. I believe so.

Q. Then it says, this asbestos is marketed throughout the United States and in many foreign countries. Union Carbide is a substantial supplier of short asbestos fiber similar to Canadian grade 7.

Now, my question to you is, last time we were talking about these grades of asbestos and you had described the Carey Chrysotile asbestos that you were using in Bound Brook as floats. Do you remember that?

A. They were combined as asbestos floats.

Q. And my question now is, now that you read this, do you remember if those floats, asbestos floats, were what was called Canadian grade 7 asbestos?

A. I don't recall the relationship between grade 7 and the term asbestos floats.

Q. Now, if you look at page 4, it's got the page number at the top, down toward the middle of the page, it says the key point to note in these quotations is that Congress in writing

1 Neal

2 the act made it clear the repeated distinction
3 between monitoring medical examinations and
4 recordkeeping that were intended to protect the
5 employee and those which constitute research.

6 And then it goes on to say, at the
7 end it says, every employer, large and small, is
8 required to prepare the same very detailed
9 records and store them for 40 years or more.

10 Do you see that?

11 A. Yes.

12 Q. Do you remember this requirement,
13 going back to your occupation at Bound Brook,
14 where you had to store the records for 40 years
15 or more?

16 A. I don't recall whether it was 40, but
17 I do recall they were to be preserved.

18 Q. And my question is, what records were
19 required to be preserved, as you recall it?

20 A. I can only -- I would really only
21 guess.

22 MR. WILL: Well, don't guess.

23 A. The other alternative would be, I
24 would assume all written --

25 MR. WILL: Don't assume, either. Do

MANHATTAN REPORTING CORP.

UCAREF00014619

1 Neal

2 you know?

3 THE WITNESS: I don't know, really.

4 MR. WILL: All right.

5 Q. Now let's look at Exhibit 21. This
6 is the big one. I will show you that. That is a
7 big exhibit we have marked as Exhibit 21.

8 For the record, it is a December 3,
9 1990 letter from Union Carbide, Health, Safety
10 and Environmental Affairs, and the author is --

11 MR. WILL: Well, the cover letter
12 appears to be signed by a Robert Plevan, but the
13 testimony is supposedly on behalf of a Manhar
14 Patel.

15 Q. It's got a two-page cover letter
16 signed by Robert E. Plevan, Ph.D., Assistant
17 Director of Occupational Health.

18 Do you know who he is?

19 A. No, I do not.

20 Q. When you were doing consulting work,
21 did you ever get involved in this time period
22 with this business of OSHA rule-making with
23 respect to asbestos? Did you ever have anything
24 to do with that?

25 A. When you say rule-making, I had no

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UCAREF00014620

1 Neal

2 part in the rule-making.

3 Q. And if you look at this exhibit,
4 after Mr. Plevan's letter it's got a written-up
5 report called Testimony for the Hearing on OSHA's
6 Proposed Rules on Occupational Exposure to
7 Asbestos and some other things, submitted
8 December 3, 1990. Have you ever seen this
9 before?

10 A. I have not.

11 Q. And this is apparently a typed-up
12 testimony of someone named Manhar Patel from
13 Union Carbide. And I see that he's a chemist by
14 training and he's an industrial hygienist. Do
15 you know who he is?

16 A. Yes, I do.

17 Q. Who was Mr. Patel?

18 A. He was the senior staff industrial
19 hygienist.

20 Q. At where?

21 A. When I knew him, he was in the
22 corporate group which provided industrial hygiene
23 service.

24 Q. And where was that located?

25 A. Danbury.

Neal

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Q. Danbury, Connecticut?

A. Connecticut.

Q. Is that the main office of Union Carbide?

A. Yes.

MR. WILL: At what point in time?

Q. Well, in 1990.

A. Yes.

Q. The date of this thing? Okay.

As far as you know, was Mr. Patel, was he a knowledgeable individual? Did you consider him to be an expert in this field?

A. Yes.

Q. Did he ever consult with you in connection with asbestos matters?

A. Not on asbestos matters.

Q. Did he ever consult with you on anything else?

A. Yes.

Q. What was that?

A. As I recall, it was a proposal to further define the frequency at which various monitoring tests were performed.

Q. Monitoring tests for what?

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UCAREF00014622

Neal

1
2 A. For any industrial hygiene hazard.

3 Q. Okay. And so if some proposal was
4 being made on the frequency of monitoring --

5 A. Yes.

6 Q. -- who was making the proposal?

7 A. I believe the group in South
8 Charleston.

9 Q. You mean Union Carbide people?

10 A. Union Carbide people in South
11 Charleston, West Virginia.

12 Q. And to whom were they making the
13 proposal?

14 A. To all the Union Carbide plants.

15 Q. And what was the proposal that was
16 being made with respect to monitoring?

17 A. It was a plan by which any industrial
18 hygienist could refer to a set of guidelines
19 which determined how often the industrial
20 hygienist should conduct monitoring tests.

21 Q. And did this include asbestos, among
22 other things?

23 A. It included all of this common air
24 contaminants.

25 Q. Okay. Was asbestos one of those?

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UCAREF00014623

Neal

A. Yes. Any air contaminant with a TLV.

Q. Okay. And under this new -- first of all, was this proposal adopted by the company?

A. I could not say for sure. If I recall, it was in my last year with Union Carbide, and I believe it was in the process of implementation.

Q. And under the proposal, was air monitoring then to be done more often or less often than it had been done in the past?

A. It would depend on previous measurements as to how close to a given TLV the measurements showed.

Q. And when you speak of TLV, again is that the threshold limit value for the concentration of that contaminant in the air?

A. Yes.

Q. And with respect to asbestos at this time, would this be an OSHA limit or would this be the ACGIH limit? What are we talking about there?

A. It would be the legal OSHA limit.

Q. Because I know these terms sometimes get interchanged. But the OSHA limit was called

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UCAREF00014624

Neal

a PEL, permissible exposure limit?

A. Yes.

Q. Is that essentially the same as the OSHA level you were talking about?

A. Essentially the same, yes.

Q. But other than with respect to that proposal, you didn't have any other contact or work with Mr. Patel?

A. None that I recall.

Q. And the final thing I want to show you is Exhibit 22. And for some reason I wrote 22 on it with a pen, so it says 22 twice. And that's a December 3, 1990 submission to the docket officer of the Occupational Safety and Health Administration, by Union Carbide. And it was actually made by, if we go look at the end here, made by Mr. Plevan again. Page 27.

And my question on this will be, have you ever seen this before?

A. Page 27?

Q. Well, have you ever seen this entire thing before?

A. I have not.

Q. Now let's --- off the record.

1 Neal

2 (Discussion off the record.)

3 Q. Mr. Neal, going back to this, these
4 air measurements that were done on the asbestos
5 dust during the trial runs of the Calidria
6 asbestos in the resin manufacturing at Bound
7 Brook.

8 I had thought that this exhibit I
9 brought with me today was describing that, but
10 you have now told us that no, this is actually
11 describing a research lab test. My question
12 is --

13 MR. GERSON: That's Exhibit 15?

14 Q. Exhibit 15, right.

15 A. And on polyethylene.

16 Q. Polyethylene. Right. My question
17 is, do you know where we could find the tests on
18 the Calidria at Bound Brook in the trial runs on
19 the rosin manufacturing that you told us about
20 last time?

21 A. I couldn't tell you specifically,
22 other than that they should be in the files, the
23 R&D files, similar to perhaps where that came
24 from.

25 Q. Where is that file? Is that at the

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UCAREF00014626

1 | Neal

2 plant in New Jersey or is that --

3 A. I can't understand really what you
4 mean by file.

5 Q. Okay. I'm just wondering, if we
6 tried to find that today, do you know where we
7 could go to look for that?

8 A. I don't know really where these files
9 reside right now, having been away from that for
10 10 years or more. Many documents have been
11 furnished to many various parties, and that's
12 about all I can say.

13 Q. Okay. And again, you have not been
14 shown those or reviewed them in preparation for
15 your deposition here.

16 A. No. I have not had any direct
17 connection with files for many years.

18 Q. Let me do this. I would like to show
19 you what we had marked as Neal Deposition Exhibit
20 4, which is a Union Carbide materials safety data
21 sheet for Calidria asbestos. My question is,
22 have you ever seen one of these before?

23 A. I don't recall whether I have or have
24 not.

25 Q. Would it have been the practice at

1 Neal

2 Bound Brook, when the Calidria was brought in for
3 this test run in the resin manufacturing in '73
4 to '75, would that shipment have been accompanied
5 by a material safety data sheet like this?

6 MR. WILL: Well, I object to the form
7 of the question. You can ask him whether he
8 recalls whether it was.

9 Q. Well, first of all, do you recall
10 whether it was?

11 A. I don't recall.

12 Q. Was it the practice of the industrial
13 hygiene department at the plant to require that
14 materials safety data sheets come in with
15 materials like that?

16 A. It was a requirement. As to the
17 date, I can't really say.

18 Q. Exhibit 5 is another data safety
19 sheet for the Calidria asbestos, which is pretty
20 much the same as that one, a little bit different
21 format. My question is, have you ever seen that
22 before?

23 A. I don't recall.

24 Q. Neal Exhibit 6 is a photocopy of, I
25 will represent to you, the front and back label

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UCAREF00014628

1 Neal

2 on a bag of Calidria asbestos. And I'll ask if
3 you recall seeing that label on the bags of
4 Calidria asbestos that came into the plant at
5 Bound Brook.

6 A. Again, I can't really say.

7 MR. GERSON: Are you asking about
8 this particular label?

9 MR. BROWNSON: Right.

10 Q. Because then 7 and 8 are also
11 labels. And maybe I will show both of those to
12 you. Exhibits 7 and 8 are draft labels, I guess
13 you would call them, with handwriting that were
14 done in '83 for the Calidria asbestos.

15 And my question is, have you ever
16 seen those before, either in their final form
17 or -- you probably haven't seen them in the
18 handwritten form we have there, but have you seen
19 those labels when they were completed?

20 MR. GERSON: Well, you are assuming
21 they were completed.

22 MR. WILL: Yes. Why don't we start
23 one question at a time. Has he ever seen those.

24 Q. Have you ever seen those?

25 A. I have seen the essence of this label

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UCAREF00014629

1 Neal
2 on many occasions, but I can't say whether I saw
3 them in this particular format or what.

4 Q. Where did you see the essence of the
5 label, or labels, similar to that?

6 A. In the many procedures and job
7 descriptions, all the informational material used
8 given to the employees.

9 MR. GERSON: Let's take a 1-minute
10 break.

11 (A recess was taken.)

12 BY MR. BROWNSON:

13 Q. I want to show you now, Mr. Neal,
14 Deposition Exhibit 9, which we had looked at a
15 little while ago. And there is a number of
16 things here that I wanted to ask you about.

17 This says Chrysotile asbestos warning
18 cancer hazard. Did you come to understand at
19 some point in time that Chrysotile asbestos can
20 pose a cancer hazard?

21 A. I had understood that any asbestos
22 could be a cancer hazard.

23 Q. And then it says breathing asbestos
24 dust can cause lung damage and cancer. Is that
25 an understanding that you reached at some point?

Neal

A. Yes, it is.

Q. Then the next thing it says is, the risk of lung cancer is greatly increased in smokers. Again, is that something you understood?

A. Yes.

Q. Do you recall when you came by that knowledge?

A. Sometime in the '70s.

Q. And it says do not create or breathe dust. Is that something that you would agree would be good practice?

A. Yes.

Q. Do not drysweep or use air hose. Is that something that would be good practice?

A. Yes.

Q. Do not take protective equipment or clothing home?

A. Yes.

Q. Do you agree that would be good practice?

A. Yes.

Q. I'm jumping down now: Do wear approved respiratory protection and protective

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UCAREF00014631

Neal

clothing as required by applicable regulations.

Is that good practice?

A. Yes.

Q. Do use vacuum or wet cleaning methods. Is that a good practice?

A. Yes.

Q. And finally: Do dispose of dust or contaminated protective equipment in dust-tight containers.

A. Yes.

Q. Is that a good practice?

A. Yes.

Q. And is that one that you followed at Bound Brook?

A. Yes.

MR. GERSON: Going back to Exhibit 6. You do realize it references a particular resin grade.

MR. BROWNSON: I see that.

Q. Now, next I would like to draw your attention to Neal Deposition Exhibit 10, which, for the record, is a 12-page report of July 8, 1966 entitled Melon Institute Special Report, the fibrogenic potential of asbestos products via

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UCAREF00014632

1 Neal

2 intraperitoneal injection in guinea pigs, rats,
3 and rabbits, and by the intratracheal route in
4 the rat. Chemicals division, Union Carbide
5 Corporation, industrial No. 274-29.

6 My question is, have you ever seen
7 this document before?

8 A. No, I have not.

9 Q. Were you familiar with the Melon
10 Institute?

11 A. Yes.

12 Q. And can you tell us what that was or
13 what that is?

14 A. It was the toxicology research
15 laboratory that was sponsored by Union Carbide
16 Corporation, located in Pittsburgh.

17 Q. Do you know --

18 A. Bushyrun, Pennsylvania.

19 Q. Is that like a nearby town or suburb
20 of Pittsburgh?

21 A. Yes.

22 Q. And did you ever have any dealings
23 with the Melon Institute while you were at Union
24 Carbide?

25 A. None directly.

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UCAREF00014633

1 Neal

2 Q. Was it your understanding that the
3 Melon Institute was a research institute that was
4 sponsored by Union Carbide for various research
5 projects?

6 A. Was it my?

7 Q. Right.

8 A. Would you repeat the question?

9 Q. Was it your understanding that the
10 Melon Institute was a research institution that
11 was sponsored by Union Carbide for various
12 research projects?

13 A. Yes.

14 Q. Now, on top of this, at the very top
15 of this exhibit, handwritten, it says S. Baye.
16 Do you see that?

17 A. Yes.

18 Q. Do you know, is that a reference to
19 someone named Sula Baye?

20 A. I have no way of knowing.

21 Q. Have you ever heard of someone called
22 Sula Baye?

23 A. No.

24 MR. GERSON: Excuse me. What page?

25 MR. BROWNSON: Right on the first

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UCAREF00014634

1 Neal

2 page.

3 MR. GERSON: Of Exhibit 10?

4 MR. BROWNSON: Right. I only say
5 that because we learned about that name
6 yesterday.

7 Q. Have you ever seen reports of this
8 type -- and I mean by that a report from the
9 Melon Institute -- that was prepared in
10 connection with one of the Union Carbide research
11 projects down there?

12 A. I have seen some reports, yes.

13 Q. Have you ever seen any that dealt
14 with asbestos in any way?

15 A. I could have. I really don't
16 remember.

17 Q. But this particular one is not one
18 that you recall seeing?

19 A. Not that I recognize immediately, no.

20 Q. Down, kind of just below the middle
21 of the first page, under the heading Samples, it
22 reads: The following samples were shipped to
23 Melon Institute at the request of Mr. Paul W.
24 McDaniel, who furnished the descriptive
25 information.

1 Neal

2 I think you told us before that you
3 knew who Mr. McDaniel was?

4 A. I thought, when I heard the name,
5 that he worked out of the Union Carbide corporate
6 industrial hygiene department.

7 Q. Now I want to draw your attention to
8 the second page, where, down right in the middle
9 of the page, it says results. Do you see that?

10 A. Yes.

11 Q. First, it says CMS-100 produced the
12 most severe protection in the form of granulomas
13 with giant cells in six of the seven guinea pigs
14 observed micropathologically. Typical granulomas
15 with giant cells were observed in three of four
16 rats and the one rabbit.

17 Is this information that you had
18 ever, you've ever heard of?

19 A. I don't recognize it.

20 Q. And then, if you read on, it talks
21 about, in the next two paragraphs, two other
22 types of asbestos producing various things in
23 these animals. Had you ever seen any of that
24 information that's reported there?

25 A. Not that I recall.

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UCAREF00014636

1 Neal

2 Q. For the record, I notice that it is
3 granulomatous, which is something I hadn't
4 thought of until yesterday but now I see it in
5 these animals.

6 MR. WILL: It is a mass-dose
7 reaction, not a fibrotic.

8 MR. BROWNSON: The kind of thing you
9 saw in Mr. Sinclair, for example.

10 Q. Then, if you go to page 3, there is
11 another heading called results. And my question
12 is, have you ever seen that information before
13 which is reported under that results heading?

14 A. I don't recognize -- I don't recall
15 recognizing that.

16 Q. Then it lists some names of some
17 people who appear to be the authors of this
18 report. One is Edwin R. Kincaid, research
19 associate. Then there's Urban C. Posani, senior
20 fellow. And Charles P. Carpenter, Ph.D.,
21 assistant administrative fellow.

22 Do you recognize any of those names?

23 A. I do not.

24 Q. Then there are some other names down
25 below that. Are any of those, names that are

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UCAREF00014637

1 Neal

2 known to you?

3 A. Again, I don't recognize them.

4 Q. Then I would like you to look at
5 Exhibit 11. And this is another, for the record,
6 report from the -- it is in 12. It is entitled
7 Confidential Special Report 34-70, 7 pages,
8 September 3, '71. Chemical Hygiene Fellowship,
9 Melon Institute, Carnegie Melon University,
10 Calidria asbestos rosin grade RG 244. Tracheal
11 insufflation of rat lungs with interpretation of
12 pathology after 30, 60, 90, and 180 days.

13 And then it talks about the people
14 who were involved, and it says for Union Carbide
15 Corporation, chemicals and plastics operations
16 division.

17 Have you ever seen this report
18 before?

19 A. No, I have not.

20 Q. Does this appear to be another report
21 from the Melon Institute on a research project
22 for Union Carbide?

23 A. It appears to be.

24 Q. And I would draw your attention to
25 the description of the results at the bottom of

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UCAREF00014638

1 Neal

2 page 1 and then continuing on to page 2. And if
3 you want to take a minute and read it, my
4 question will be, have you ever heard of this
5 information before today when you have read the
6 report.

7 A. From reviewing it, it does not appear
8 to be familiar.

9 Q. And again, there are some names at
10 the bottom. There is what appears to be the
11 author, Charles P. Carpenter, Ph.D.,
12 administrative fellow, then a bunch of other
13 names. Are any of those people who you
14 recognize?

15 A. I don't recognize any of them.

16 Q. The final exhibit I wanted to show
17 you was Exhibit 13, which is a Union Carbide
18 internal correspondence, Union Carbide
19 Corporation, Danbury, Connecticut, June 28, 1984,
20 subject asbestos comments file asbestos by
21 Richard G. Hanlon, with an attachment of a letter
22 of May 25, 1984.

23 My question is, have you ever seen
24 this before?

25 A. Not in my recollection.

MANHATTAN REPORTING CORP.

UCAREF00014639

Neal

Q. First of all, look at the top. It says Union Carbide Corporation, Old Ridgebury Road, Danbury, Connecticut, 06817. And this is 1984. Do you recognize that as Union Carbide's address at that time?

A. That was the Union Carbide corporate headquarters.

Q. Okay. Because going back on Exhibit 9 that we looked at a minute ago, which is this label, I note at the bottom it says Calidria Corporation, and then it's got that same address.

Does that indicate to you that the Calidria Corporation was at the same address as the Union Carbide corporate headquarters?

A. It would appear so.

Q. And you recognize Calidria as the trade name of the Union Carbide asbestos, is that correct?

A. Yes.

Q. So does it appear to you, then, that when it says Calidria Corporation on Exhibit 9, what they are talking about is the Union Carbide Calidria asbestos operation?

MANHATTAN REPORTING CORP.

UCAREF00014640

Neal

A. Yes.

MR. WILL: Well, objection to that. Anyway, what is the relevance of it anyway?

MR. BROWNSON: Well, the relevance is, you might object to the introduction of this. I just want to tie down --

MR. WILL: He's not the person to tie it down. That's my point. Having him guess, because the addresses are the same, as to what the significance is, is not an appropriate way to authenticate a document.

MR. BROWNSON: I'm not asking him to guess.

Q. Let me ask you this, Mr. Neal. Old Ridgebury Road, Danbury, Connecticut: that is the Union Carbide corporate office, is that correct?

A. Yes.

Q. Now let's go back to Exhibit 13 that we were looking at. This is two parts. The first part is kind of cover, internal correspondence from Union Carbide cover page, and then it's got this attachment which is 7 pages. And actually it might help you if you look at the

Neal

very end.

A. Yes.

Q. Actually, I guess you've got my copy because mine isn't, but I see your name appears there as one of the chemical plant industrial hygienists?

A. Yes.

MR. WILL: Off the record for just a second.

(Discussion off the record.)

(A recess was taken.)

BY MR. BROWNSON:

Q. We were looking, Mr. Neal, at Deposition Exhibit 13, which consists of this one-page cover letter from Mr. Hanlon at Union Carbide.

A. Yes.

Q. With this attachment. And the final page is called Distribution List, and it lists a bunch of people. And does this indicate, then, that this thing apparently was, all these people listed on the distribution list were given a copy of this?

A. I would think so.

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UCAREF00014642

1 Neal

2 Q. And I see one of them is you. Does
3 that help you remember ever getting this thing?

4 A. I received many of these documents
5 during my tenure at Bound Brook.

6 MR. WILL: The question is, does that
7 help you remember getting this one?

8 A. No.

9 Q. But whether you have an independent
10 recollection or not, does this show that you did
11 receive a copy of this thing?

12 A. It definitely does.

13 Q. Now, if you look at this distribution
14 list, it lists three different types of groups of
15 people. One is called the general occupational
16 health committee, and there is a whole bunch of
17 people; not you, but a whole bunch of other
18 people.

19 What is this committee? Do you
20 know? This is in 1984. That's the time period
21 here.

22 A. I have to think back as to what that
23 committee consisted of, and by looking at the
24 names I hope to be able to recall more of the
25 information of the committee. I do recognize

Neal

some of those names.

Q. I see one of them is this Mr. Plevan, whose name we'd seen earlier. Plevan. Do you see that?

A. Yes, I see that.

Q. Looking at these names, does this help to remind you or jog your memory as to what this committee was?

A. Not all that well. The few people I recognize there come from different locations and types of jobs.

Q. And of the people that you recognize, are they all Union Carbide employees?

A. There are many I don't recognize, that I can't say that they are all -- therefore, I can't say that they are all Union Carbide people.

Q. But just with respect to the ones that you do recognize, are those Union Carbide employees?

A. Those are Union Carbide people.

Q. The second group of people is chemical plant hygienists, that's where you show up. And I guess that's what it says, industrial

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UCAREF00014644

1 Neal

2 plant industrial hygienists. That's from the
3 different chemical plants?

4 A. Yes.

5 Q. One of them is Mr. RE Peele. Is that
6 the same Mr. Peele we talked about earlier, in
7 the last deposition?

8 A. Yes, it is.

9 Q. Can you tell, from these names or
10 maybe just because you know, what the different
11 Union Carbide plants are where these industrial
12 hygienists come from?

13 A. Yes, with enough time to recall, I
14 think I could identify each name with a location.

15 Q. Could you try to do that for us?

16 A. Bosserman I believe was located at
17 South Charleston Tech Center.

18 Q. Is that South Charleston, West
19 Virginia?

20 A. West Virginia.

21 Dermit is from Texas City.

22 Q. That's in Texas?

23 A. Texas.

24 Q. What kind of operation was that down
25 there?

1 Neal

2 A. It was a manufacturing facility for
3 many chemicals and plastics.

4 Q. Okay.

5 A. Do you want them broken down in
6 detail?

7 Q. Well, why don't you keep going
8 through the list and tell us, for those you
9 remember, which Union Carbide plants they were
10 at.

11 A. Frank Garcia-Sharp was located in
12 Puerto Rico.

13 Q. And again, not all of these people,
14 these would be at different Union Carbide plants?

15 A. Yes. And mainly for polyethylene.

16 Q. Okay.

17 A. Geary, I'm not sure at this point
18 where he was located.

19 Q. Is that a name that's familiar to
20 you?

21 A. Somewhat, but no personal
22 recollection.

23 Q. Okay.

24 A. The name is familiar.

25 Q. Okay.

MANHATTAN REPORTING CORP.

UCAREF00014646

1 Neal

2 A. J. Knapp was in the South Charleston
3 Tech Center. Also RE Peele. And then Peele also
4 was assigned to the tech center location
5 overall.

6 Q. So was he kind of a head-honcho, so
7 to speak, in the tech center?

8 A. No. He had two assignments. His
9 first assignment was with the research industrial
10 hygiene group in the tech center, from where he
11 was then transferred to the responsibility, the
12 industrial hygiene responsibility, for the entire
13 tech center.

14 Q. Okay.

15 A. Robinson I believe was associated
16 with the plant, the Louisiana plant, and I don't
17 recall the name of the town.

18 Q. Is that in Houma, Louisiana? Does
19 that ring a bell?

20 A. Could be.

21 Q. Okay.

22 A. Yalcinkaya, I believe Seadrift.

23 Q. What's Seadrift? Where is that?

24 A. Texas.

25 Q. Oh. Okay.

MANHATTAN REPORTING CORP.

UCAREF00014647

1 Neal

2 A. Young, I don't recall. Either Young
3 or Youngblood, I don't recall their location.

4 Q. Okay. Now, the third group of people
5 on this distribution list who got copies of this
6 document is called corporate industrial hygiene
7 staff. And would this then be the industrial
8 hygiene staff at the corporate office in Danbury,
9 Connecticut?

10 A. I believe so.

11 Q. And they list five names there. Are
12 these people who are known to you?

13 A. I know Cope. And I have heard of the
14 other four names, but I don't know them
15 personally.

16 Q. Okay. Now, would it be fair to say,
17 to summarize this Exhibit 13, that all of the
18 people listed on this distribution list at the
19 general occupational health committee of Union
20 Carbide at the Union Carbide chemical plant
21 industrial hygienists and the Union Carbide
22 corporate industrial staff got a copy of this
23 June 28, 1984 cover letter and this attachment of
24 May 25, 1984?

25 A. I would assume so.

MANHATTAN REPORTING CORP.

UCAREF00014648

Neal

Q. Now look at the cover letter, which is the first page, which is this letter written by Mr. Hanlon of Union Carbide. And it indicates that he's from an originating department called HS&EA. What's that?

A. That's health safety and environmental affairs. That was an overall branch of corporate management, responsible for those three functions.

Q. And what three functions?

A. Health, safety, and environmental.

Q. Okay. And he was at the main corporate office of Union Carbide, in Danbury, Connecticut?

A. Yes.

Q. Now, he writes here: Enclosed is a copy of the cover letter from ORC's recent submission to OSHA concerning the notice of proposed rule making for asbestos.

And then, if you look at the thing that he encloses, it says May 25, 1984 letter from a thing called Organization Resources Counselors, Inc. I guess that's the ORC he's talking about, is that right?

MANHATTAN REPORTING CORP.

UCAREF00014649

1 Neal

2 A. I would say so.

3 Q. Do you know what Organization
4 Resources Counselors, Inc., is?

5 A. I believe it was an organization, a
6 consulting organization, for various
7 manufacturers.

8 Q. And they are located at 1331
9 Pennsylvania Avenue Northwest, in Washington, DC?

10 A. It appears so.

11 Q. Other than just seeing this, do you
12 have any independent knowledge about them? Did
13 you ever deal with them? Did you ever hear of
14 them?

15 A. Not directly.

16 Q. And from this exhibit can we infer
17 that Organization Resources Counselors, Inc., is
18 some kind of lobbying group for different
19 manufacturers to lobby with OSHA about these
20 rules?

21 A. I really wasn't that familiar with
22 the organization to say so.

23 Q. Okay. Now, if you look at the cover
24 letter from Mr. Hanlon of Union Carbide, he's
25 talking about ORC's recent submission to OSHA

MANHATTAN REPORTING CORP.

UCAREF00014650

1 Neal

2 concerning the proposed rules for asbestos. Then
3 he says basically ORR is recommending a dual
4 exposure limit. One is called permissible
5 ambient concentration, known as the PAC, of .5
6 fibers per CC.

7 That would be .5 asbestos fibers per
8 cubic centimeter of air?

9 A. Yes.

10 Q. The second thing is permissible
11 exposure limit, which is called a PEL, of .2
12 fibers per cc. And again, would that be asbestos
13 fibers per cubic centimeter of air?

14 A. Yes.

15 Q. Now, based upon your own knowledge of
16 the OSHA limits, do you know whether OSHA ever
17 adopted this dual exposure limit that is talked
18 about here in this letter?

19 A. Again, my memory pretty much phases
20 out on the detailed numbers that occurred in 1984
21 and after.

22 MR. BROWNSON: That's all the
23 questions I've got for you, Mr. Neal. I want to
24 thank you for your time. Mr. Will may have some
25 questions here.

MANHATTAN REPORTING CORP.

UCAREF00014651

1 Neal

2 MR. WILL: I think I have a few.

3 EXAMINATION BY MR. WILL:

4 Q. Let's go back, Mr. Neal. I want to
5 ask you just a couple of questions to clarify a
6 few things.

7 You indicated that you got a
8 bachelor's degree from Princeton University, is
9 that correct?

10 A. Yes.

11 Q. And then did you also get a masters?

12 A. The next year.

13 Q. Also from Princeton?

14 A. Yes.

15 Q. And were both your bachelors and your
16 masters degrees in chemical engineering?

17 A. Yes.

18 Q. I don't know that anybody asked you,
19 what was your date of birth?

20 A. 1918. December 15.

21 Q. So if my math is right, you are about
22 to turn 76 years old.

23 A. Unfortunately, yes.

24 Q. Am I correct that your involvement
25 with asbestos at Union Carbide Corporation was

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UCAREF00014652

Neal

limited to the work you did at the Bound Brook plant from approximately 1972 to approximately 1985?

A. Yes.

Q. And did you have anything to do with industrial hygiene at the King City mine or mill?

A. No.

Q. Did you have anything to do with selling Calidria asbestos?

A. No.

Q. Did you have anything to do with utilizing Calidria asbestos in a production process? I know you did the one experiment, but I'm talking about using it as a regular ingredient in a production process.

A. No.

Q. Did you have anything to do with calling on customers who purchased Calidria asbestos for use in their own products?

A. No.

Q. Did you have anything to do with any experimental work that was done with Calidria asbestos on animals?

A. No.

MANHATTAN REPORTING CORP.

UCAREF00014653

Neal

Q. Did you have anything to do or were you ever assigned to do any medical research on Calidria asbestos?

A. No.

Q. Would I be correct that the type of asbestos that was used in the production process of Bound Brook when you were involved with it was this Carey Canadian Chrysotile?

A. Correct.

Q. And now, do you have any knowledge one way or the other about whether other types of asbestos fibers may have been used at some point at the Bound Brook plant?

A. No knowledge of other.

Q. So they may have been; they may not have been.

A. Correct.

Q. You don't know one way or the other.

A. Right.

Q. And am I correct that your only knowledge of the use of Calidria at Bound Brook was the one experiment that you were involved with?

A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014654

1 Neal

2 Q. Now looking at Exhibit 3-A. Would
3 you put the date of that experiment in January of
4 '73?

5 A. Yes.

6 Q. Was it your understanding that the
7 Calidria proved unsuitable for the end product?

8 A. Yes.

9 Q. And that was the reason it was never
10 used in production?

11 A. Yes.

12 Q. You were asked some questions by Mr.
13 Brownson about the requirements that a material
14 safety data sheet accompany materials that were
15 used at the Bound Brook plant.

16 A. Yes.

17 Q. Do you remember that?

18 A. Yes.

19 Q. Was that materials that were used in
20 the regular production process?

21 A. Yes.

22 Q. Did that rule apply the same
23 hard-and-fast way to things that were used in the
24 R&D department or just for experimentation?

25 A. It applied across the entire site to

MANHATTAN REPORTING CORP.

UCAREF00014655

1 Neal

2 R&D laboratories as well as the plant.

3 Q. Who was responsible for furnishing,
4 as you understood it, the material safety data
5 sheet?

6 A. The vendor, at the request of the
7 purchasing department.

8 Q. And if the vendor did not send the
9 material safety data sheet along, and the Bound
10 Brook plant wanted one, then what was the
11 procedure?

12 A. They would fax or otherwise transmit
13 a material safety data sheet.

14 Q. Bound Brook would call the vendor?

15 A. Yes.

16 Q. And request one.

17 A. Right.

18 Q. Exhibit 3-A, as we mentioned before,
19 does have some results of air testing of this
20 Calidria sample. Is that right?

21 A. Yes.

22 Q. And you indicated I think previously
23 that it also shows test results for the Carey
24 Canadian fiber, as well.

25 A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014656

1 Neal

2 Q. Were there other air samples taken,
3 other than the ones reported on 3-A?

4 A. Not that I recall.

5 Q. Okay. Mr. Brownson asked you sort of
6 where are the other air sampling data. Do you
7 know for a fact that there is any other data that
8 was reported anywhere?

9 A. I don't know of other data.

10 Q. All right. Would 1973 have been the
11 last time, prior to your deposition, that you saw
12 any air sampling data for that experiment?

13 A. This is the only data I've seen
14 involving Calidria.

15 Q. And you saw that back in 1973.

16 A. Yes.

17 Q. And did you see it at any time
18 between then and the time when your deposition
19 was taken?

20 A. No.

21 Q. As you interpret the test results in
22 3-A, which type of fiber released more asbestos
23 fibers into the air in the production process at
24 Bound Brook?

25 A. Well, from the data, it appears that

Neal

the Carey, the 7 RF 9, produced more dust than the Calidria.

Q. And was that using the same counting techniques?

A. The same type of testing.

Q. Now, the Carey fiber that was used in the production process at Bound Brook, did that come in bags?

A. Yes.

Q. And how was the fiber placed in the bags? That is, was it in pellets or was it loose fiber, the Carey?

A. The Carey was loose.

Q. You were asked previously about dust counts at the place in the production assembly where the Bakelite resins were packed. Do you remember that?

A. Yes.

Q. And were there dust counts taken at that location?

A. Yes.

Q. What did those dust counts show in terms of asbestos fibers?

A. Well, the end product showed no

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UCAREF00014658

Neal

asbestos fibers.

Q. Okay. Why was that?

A. Because the fibers had been embedded with the resin.

Q. In terms of, then, whatever dust standard or concentrations applied, how did you categorize the dust at the packing station: as asbestos dust or nuisance dust?

A. Simply, nuisance dust.

Q. Did you have any role in actually purchasing asbestos to be used in the production process at Bound Brook?

A. No.

Q. And did you have any role in deciding what type of fiber would be used in the production process?

A. No.

Q. Or in who the vendor would be?

A. No.

Q. Now, did the Carey company ever come to you to consult about the industrial hygiene program for asbestos at Bound Brook?

A. No.

Q. And you were the person that was in

MANHATTAN REPORTING CORP.

UCAREF00014659

Neal

charge of that program at the plant. Correct?

A. Industrial hygiene.

Q. Yes. For asbestos.

A. For asbestos.

Q. Did the Carey company make any suggestions to you about what you should do for industrial hygiene in the plant that was using their product?

A. None that I recall.

Q. Did they provide you any information about health effects or potential health effects of their asbestos?

A. No.

Q. Did they provide you any information about suggested protective equipment for the workers?

A. No.

Q. Did they provide you any suggestions about procedures for handling their product, to minimize dust?

A. No.

Q. Did they provide you any information about what you needed to do with their product in order to comply with OSHA regulations?

MANHATTAN REPORTING CORP.

UCAREF00014660

Neal

A. No.

Q. Did they provide you with any assistance in developing your dust-handling equipment?

A. No.

Q. Did they provide you with any suggestions or techniques about what you could do to minimize dust in the operations that used asbestos?

A. No.

Q. Well, nonetheless, though, you did develop an industrial hygiene program, didn't you?

A. We did.

Q. In your view who was responsible for the hygiene program as it related to asbestos at the Bound Brook plant? The supplier of the asbestos or the employer?

MR. BROWNSON: Well, to the extent you are asking him for a legal conclusion, I will object to it. But go ahead.

Q. No. I'm asking in his view from the industrial hygiene perspective. Did you feel --

A. No.

MANHATTAN REPORTING CORP.

UCAREF00014661

Neal

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Q. What did you feel --

A. You will have to repeat that question.

Q. Sure. You were functioning as an industrial hygienist at the Bound Brook plant. Is that right?

A. Yes.

Q. And with respect to the safety of the employees that were working with or around asbestos, did you believe it was your responsibility to implement an appropriate industrial hygiene program?

A. Yes.

Q. Did you think that you could shuffle that responsibility off on Carey as the supplier of the asbestos?

A. No.

Q. Now, were the industrial hygiene techniques that you used at Bound Brook with respect to asbestos, were those a trade secret that Union Carbide developed at Bound Brook?

A. No.

Q. As far as you were aware, were those something that were well known throughout the

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UCAREF00014662

1 Neal

2 industrial hygiene community?

3 A. They were well known procedures.

4 Q. And were the concerns about health or
5 potential health aspects of asbestos that you
6 were aware of when you were at Bound Brook, was
7 that something that was a trade secret of Union
8 Carbide?

9 A. Not that I know of.

10 Q. As far as you knew, was that
11 something that was also well known?

12 A. Yes.

13 Q. In the hygiene community?

14 A. Yes.

15 Q. Was there any asbestos dust control
16 equipment in place at Bound Brook when you took
17 over your hygiene responsibilities in 1972?

18 A. Yes, there were.

19 Q. And by that I mean dust control or
20 suppression equipment for the asbestos.

21 A. Yes.

22 Q. Operation. Between 1972 and 1985 did
23 you ever hear of anyone at Bound Brook getting an
24 asbestos-related disease or condition?

25 A. I never heard of any.

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UCAREF00014663

1 Neal

2 Q. Now, you indicated that you knew Dr.
3 McKinley, is that right?

4 A. Yes.

5 Q. And I think you said he was the
6 doctor who did the physical examinations of the
7 workers at Bound Brook that were in the asbestos
8 operation?

9 A. Yes. Along with other hazards, you
10 might say.

11 Q. So he wasn't looking just for
12 asbestos; he was looking for any occupational
13 problem.

14 A. Yes.

15 Q. Now, how would you describe your
16 working relationship with Dr. McKinley? Did you
17 only see him infrequently or did you work with
18 him frequently?

19 A. I saw him frequently; had lunch with
20 him frequently. We discussed matters of mutual
21 interest.

22 Q. He was aware that you were
23 responsible for the industrial hygiene program
24 for asbestos?

25 A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014664

1 Neal

2 Q. Now, did Dr. McKinley ever tell you
3 that he had found any asbestos-related disease or
4 condition in any of the workers at Bound Brook?

5 A. No.

6 Q. And do you believe that if he had
7 found such a condition, he would have made you
8 aware of that fact?

9 A. I'm sure he would have.

10 Q. You mentioned a fellow, or excuse me,
11 Mr. Robert Peele who worked at Union Carbide.
12 Right?

13 A. I mentioned -- I believe the question
14 originated from Mr. Brownson.

15 Q. Brownson. Right. Did you ever talk
16 with Mr. Peele about asbestos?

17 A. No.

18 Q. You were asked some questions, last
19 session of your deposition, about Workers'
20 Compensation claims and the Oil, Chemical, and
21 Atomic Workers Union. Do you remember that
22 subject?

23 A. Yes.

24 Q. In your view, and again this is just
25 your view, did the OCAWU encourage the filing of

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UCAREF00014665

Neal

what you perceived to be nonmeritorious Workers
Comp claims?

A. I felt that they did.

Q. Now, you mentioned that at some point
Bound Brook phased out the entire Bakelite line.
Is that correct?

A. Of phenolic plastic.

Q. And when that happened, the phenolic
plastics were phased out, when that happened,
then asbestos was no longer used at the plant as
a production item.

A. Correct.

Q. Did you still, though, continue doing
air testing for asbestos?

A. Yes.

Q. Well, why is that, if you were no
longer using it in the production process?

A. Well, we had asbestos in our pipe
covering, and the maintenance workers had to make
repairs on the insulation, and in doing so they
did handle mixes of cement in order to make their
repairs.

Q. So did you continue your monitoring
then to see whether the insulation materials and

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UCAREF00014666

Neal

insulation activities were creating a possible hazard from asbestos in the plant?

A. Yes.

Q. Do you believe that any responsible company that had asbestos insulation in the plant would have done similar monitoring and testing?

MR. BROWNSON: I object to the form of the question.

A. Well, they should have if they did not.

MR. GERSON: Could we take a one-minute break?

MR. WILL: Sure. Let's go off the record.

(Discussion off the record.)

BY MR. WILL:

Q. Mr. Neal, did you make any suggestions for modifying procedures or modifying equipment in order to reduce the amount of asbestos fiber released into the atmosphere at Bound Brook?

A. Yes.

Q. And did Union Carbide implement your suggestions?

MANHATTAN REPORTING CORP.

UCAREF00014667

Neal

A. Yes.

Q. Can you give me an example of one piece of machinery modification that you recommended.

A. The principal one was the handling of the empty bags after they were dumped into the chute. And rather than to have the operator pick up the empty bag and drop it on the floor or on top of another empty bag, we decided we could take advantage of the ventilation that we already had in the chute, and we cut a hole in the side of the chute and attached a nozzle type and a short duct into a large empty plastic bag.

So when the operator dumped a bag of asbestos, rather than pulling a bag out of the chute, he simply shoved it through this opening, which was actually under vacuum, and pushed it into the receiving bag. And that way it was completely contained under reduced pressure.

Q. And was this something that was your idea, that you thought up?

A. It was a joint idea of how we could better handle the empty bags.

Q. Was that something that Carey

MANHATTAN REPORTING CORP.

UCAREF00014668

Neal

suggested?

A. No.

Q. I want to ask you one question about Exhibit 15. First of all, the last 30-some-odd pages of that exhibit appear to be dust count sheets. Is that right?

A. Yes.

Q. Do you see anything on those sheets that indicates a date when the counts were done?

A. There's a place for a date entry, but there's no entry on this page. It doesn't look like there are any entries on the other pages.

Q. Okay. Likewise, there's nothing that indicates the particular operation?

A. Correct.

Q. And there is nothing that indicates the initials of the person either taking the sample or doing the counting, is there?

A. I don't see any.

Q. If you had just been given these sheets, by themselves, would you have any idea to what they related; that is, where the sample was taken or when it was taken or who took it?

A. I wouldn't know that information.

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UCAREF00014669

Neal

Q. And in fact there's nothing about these count sheets, themselves, that show that they relate to this cover memo, is there?

MR. BROWNSON: Other than the fact they were produced together by Union Carbide?

MR. WILL: And that you have attached them together.

MR. BROWNSON: Right.

A. Other than that, they are a standard format for recording fibers.

Q. For counts, right?

A. For counts.

Q. Yes. But I mean, there's nothing to show that they necessarily go with this experiment as opposed to some other experiment.

A. Right.

Q. The other thing I wanted to bring your attention to is the third page of Exhibit 15. The very last sentence of the handwritten note here says: It is important to note that nowhere in the process was any local ventilation available. Did I read that correctly?

A. That's what I read here.

Q. All right. Assuming that to be true,

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UCAREF00014670

1 Neal

2 what impact would the lack of local ventilation
3 typically have on dust counts?

4 A. Well, it allows high, possibly high
5 values of dust counts.

6 Q. You would expect, if appropriate
7 local ventilation was used, that dust counts
8 would be lower.

9 A. Correct.

10 Q. In response to a question from Mr.
11 Brownson this morning, you said that your concern
12 at Bound Brook was to minimize the dust counts.
13 By that did you mean your concern was to
14 institute appropriate hygiene procedures to
15 reduce the amount of dust in the air?

16 A. Certainly so.

17 Q. You weren't talking about minimizing
18 the number of times you did dust sampling, did
19 you?

20 A. No.

21 MR. BROWNSON: Object to form.

22 A. No.

23 Q. Were you talking about reducing the
24 number of times that you took air samples?

25 A. Reducing the amounts of asbestos in

MANHATTAN REPORTING CORP.

UCAREF00014671

1 Neal

2 the air.

3 Q. Okay. Were you talking about
4 reducing the number of times you took samples?

5 A. Not necessarily.

6 Q. Were you talking about doing
7 something to your technique that produced lower
8 counts, your sampling technique that produced
9 lower counts?

10 A. Certainly not.

11 Q. You were talking about doing things
12 that reduced the amount of asbestos dust in the
13 air.

14 A. Exactly.

15 MR. BROWNSON: Object to the form.

16 Q. Mr. Neal, from your work at Bound
17 Brook before October of 1972, I want to focus on
18 that period, from your perception, was there a
19 concern just about dust in the environment in
20 general?

21 A. Oh, yes.

22 Q. From your perception even prior to
23 1970, October of '72, did Union Carbide take
24 steps in that plant to reduce dust?

25 A. Yes.

MANHATTAN REPORTING CORP.

UCAREF00014672

Neal

1
2 Q. And was that all types of dust?

3 A. Yes.

4 Q. Now, we indicated your training was
5 as a chemical engineer, is that right?

6 A. Yes.

7 Q. You are not trained as a physician?

8 A. Exactly.

9 Q. And are you aware of any of the
10 recent research that has been done on whether in
11 fact Calidria asbestos has the same effect on
12 human health that other types of asbestos did?

13 MR. BROWNSON: Well, I'll object to
14 the form of the question, implying there is such
15 research. But go ahead.

16 A. I had no knowledge of research done
17 on fibers.

18 Q. Do you keep up on the medical
19 literature about experiments that have been done
20 on different types of asbestos fibers and what
21 they show?

22 A. No.

23 Q. Do you mean, by your testimony here
24 today, to suggest that it is impossible that
25 Calidria asbestos could be different than other

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UCAREF00014673

1 Neal

2 types of asbestos in its ability to cause, say,
3 cancer in humans?

4 MR. BROWNSON: I'll object to the
5 form of the question. In your prior question,
6 you've just made some effort to disqualify him,
7 and now you are asking for his opinion.

8 MR. WILL: Mr. Brownson, you asked
9 him some questions along these lines earlier.

10 MR. BROWNSON: I'm just objecting.

11 MR. WILL: Okay.

12 MR. BROWNSON: I'm not saying he
13 can't answer.

14 MR. WILL: I want to make it clear,
15 you asked him some questions earlier about cancer
16 and asbestos and things like that, and I just
17 want to be clear where we are coming from.

18 Q. Would you like me to repeat the
19 question, Mr. --

20 A. I think I would.

21 Q. Do you mean to suggest by your
22 answers to Mr. Brownson's questions earlier about
23 that warning on asbestos, that it's impossible
24 that Calidria asbestos could be different than
25 other types of asbestos in its ability to cause

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UCAREF00014674

Neal

cancer in humans?

A. I would not really feel qualified to answer with yes or no to that.

Q. Okay. And likewise, do you feel qualified to offer opinions on whether it's possible that Calidria asbestos, just in general, is different than other types of asbestos in whatever health effects it may or may not cause in humans?

A. Again, I have never done that much research into Calidria.

Q. You would leave those questions up to doctors and those who have researched the area?

MR. BROWNSON: I'll object to the form of the question.

A. Exactly.

Q. Now, oh, you were asked a couple of questions about the Melon Institute. Do you know whether the Melon Institute was supported exclusively by Union Carbide or whether it got support from other sources as well?

A. It could have gotten support from other sources.

Q. All you know is that Union Carbide

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1 Neal

2 paid Melon for certain particular pieces of
3 research?

4 A. Yes.

5 Q. And would I be also correct that as
6 to the particular details of the funding and
7 support for the Melon Institute, you really don't
8 know the other details?

9 A. I don't know the details.

10 Q. All right. Let me show you a couple
11 of things here just so we are crystal clear.

12 You were shown Exhibit 7 previously.
13 And just the specific question I want to ask you
14 is, do you remember ever seeing this particular
15 document prior to it being shown to you in your
16 deposition?

17 A. No, I don't recall this exact
18 document.

19 Q. Okay. Do you know who put the
20 handwritten notes and scratch-outs on this?

21 A. No, other than that there's a name
22 down here.

23 Q. But that could mean a number of
24 different things.

25 A. It could.

1 Neal

2 MR. BROWNSON: I'll object to the
3 form of the question.

4 Q. For example, like a Deposition
5 exhibit number?

6 MR. BROWNSON: I'm objecting because
7 you are leading your witness. But go ahead.

8 Q. Well, I mean, the question is, do you
9 know what JL Meyers 225 means?

10 A. No.

11 Q. Do you know who did the handwriting
12 on here?

13 A. I don't know who would have done
14 that.

15 Q. Let me also show you Exhibit 8, and
16 ask you if you have ever seen that particular
17 document before.

18 A. Again the same applies: I have not
19 seen that, in my recollection.

20 Q. And do you know whose handwriting
21 that is?

22 A. No, I would not know.

23 Q. Do I know who put those marks -- or
24 when those marks were put on?

25 A. No.

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UCAREF00014677

1 Neal

2 Q. In response to some questions Mr.
3 Brownson asked you I think about Exhibits 7 and
4 8, you said that the information on here was
5 similar to information that had been given to
6 workers. Do you recall that testimony?

7 A. Yes.

8 Q. By that were you referring to workers
9 at Bound Brook?

10 A. My workers that I had to administer
11 to.

12 Q. And do you recall Union Carbide
13 posting signs in the plant at Bound Brook about
14 asbestos hazards?

15 A. I vaguely remember signs that read
16 cancer hazard.

17 Q. Okay. Do you remember whether those
18 signs were posted when, for example, maintenance
19 people would be working on the pipes and the
20 insulation?

21 A. I couldn't say for sure. They could
22 very well have been posted.

23 Q. Do you remember at what point in time
24 those signs first became used at Bound Brook?

25 A. I believe it was during demolition

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UCAREF00014678

1 Neal

2 operations of pipe covering and so on.

3 Q. And can you put a year on when those
4 demolition activities would have -- or did they
5 go throughout the period?

6 A. Throughout the '70s.

7 MR. WILL: Let me step out and talk
8 to Mr. Gerson. I may just about be done.

9 (Discussion off the record.)

10 Q. Mr. Neal, did you have any role in
11 preparing any of the packaging or labeling or
12 warnings for the Calidria asbestos?

13 A. No.

14 Q. And did you play any role in
15 determining any labeling or warnings for the
16 products that were made at Bound Brook?

17 A. No.

18 MR. WILL: Subject to anything that
19 Mr. Brownson has for you, those are the questions
20 I have. Thank you.

21 MR. BROWNSON: Just a few things to
22 follow-up here.

23 CONTINUED EXAMINATION

24 BY MR. BROWNSON:

25 Q. Mr. Will noted that you were not a

1 Neal

2 physician; but nevertheless, you were in charge
3 of industrial hygiene for Union Carbide at Bound
4 Brook for a number of years, is that correct?

5 A. Yes.

6 Q. And in that capacity, you understood
7 as an industrial hygienist that asbestos dust, if
8 breathed, could cause cancer. Is that correct?

9 A. Could be a health hazard and could
10 cause asbestosis. I don't know about cancer.

11 Q. Asbestosis. Okay. Well, earlier
12 when we went through the label there, when we
13 said that it could cause cancer, you stated that
14 that was something that you had learned.

15 A. Yes.

16 Q. Is that correct?

17 A. Yes.

18 Q. Now let me ask you this. Mr. Will
19 was asking you a little bit about material safety
20 data sheets and that they came from vendors. Is
21 that correct?

22 A. Yes.

23 Q. Okay. So, for example, when you were
24 at Bound Brook, and Bound Brook was using the
25 Calidria asbestos in these trial production runs,

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UCAREF00014680

1 Neal

2 and that asbestos was being shipped to the Bound
3 Brook plant, the vendor of that asbestos would be
4 the Union Carbide Calidria operation, wherever it
5 came from, correct?

6 A. Not necessarily.

7 Q. Who else would it be?

8 A. Once we had a material safety data
9 sheet for a generic material, that applied to any
10 other supplies that came into the plant.

11 Q. So are you saying, if you had a
12 material safety data sheet for asbestos, say for
13 Carey asbestos up in Canada, that would then
14 apply to any asbestos that came in?

15 A. Yes.

16 Q. And is that because in your view
17 asbestos was asbestos and was all the same in
18 terms of the --

19 A. -- exposures and --

20 Q. -- exposures and the sorts of
21 information conveyed in the material safety data
22 sheet?

23 A. Yes.

24 Q. Now, with respect to the Calidria
25 asbestos that was used, if you did want a

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1 Neal

2 material safety data sheet for that asbestos,
3 where would you go to get that?

4 A. We would either go to the supplier,
5 supplier's place of business, or sometimes our
6 own internal organization, corporate industrial
7 hygiene, which generally had material safety data
8 sheets on file.

9 Q. Now, Mr. Will was asking you some
10 questions about Carey asbestos and whether you
11 relied on information provided by them and that
12 sort of thing. Let me ask you this question.

13 Did Carey asbestos ever send a
14 certified industrial hygienist into the Bound
15 Brook plant to conduct airborne asbestos dust
16 counts?

17 A. No.

18 Q. Now, you are aware, of course, and we
19 talked about this at some length, that Union
20 Carbide supplied such industrial hygienists when
21 you were using the Calidria asbestos, though, is
22 that correct?

23 A. Yes.

24 Q. If Carey had sent certified
25 industrial hygienists into the plant to conduct

1 Neal

2 airborne dust counts, would you have relied upon
3 any information they provided for you?

4 A. It's difficult to say without knowing
5 a little bit more about the credentials of
6 whoever they sent into the plant.

7 Q. So would you have checked up on their
8 credentials?

9 A. Yes, very much so.

10 Q. And would the reason you would check
11 up on their credentials be that you wanted to
12 make sure that those were good, competent people,
13 who knew what they were doing?

14 A. Yes.

15 Q. And if you were satisfied that they
16 were competent people who knew what they were
17 doing, would you take a look at their data and
18 use that in your own work at Bound Brook?

19 A. Yes --

20 MR. WILL: Objection: hypothetical.
21 Go ahead.

22 A. We would label it with the
23 identification of the companies that presented
24 the data.

25 Q. Now, Mr. Will was asking you some

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1 Neal

2 questions about your knowledge of asbestos health
3 hazards that you gained in the course of your own
4 work as an industrial hygienist, and he was
5 asking you questions about whether this was some
6 trade union secret at Carbide or whether this was
7 well known among industrial hygienists. Do you
8 remember that?

9 A. Yes.

10 Q. Would it be fair to say that the
11 sorts of information you learned as an industrial
12 hygienist about asbestos while you were at Union
13 Carbide was information that was known within the
14 larger community of industrial hygienists?

15 A. I would say so.

16 Q. And this was not a trade secret, if
17 you will?

18 A. Correct.

19 Q. Of yours or Union Carbide's.

20 Let me ask you, though, we were
21 looking earlier at these reports from the Melon
22 Institute, and let's look at Exhibit 10, which is
23 their report of July 1966.

24 Would you agree with me that this
25 report in fact was something that was a trade

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Neal

secret of Union Carbide or the Melon Institute because it is marked confidential?

A. And what about it? What is your question again?

Q. That this report is in fact a trade secret of Union Carbide or the Melon Institute because it is marked confidential.

A. Being confidential, it implies restriction of circulation of the document.

Q. And in fact, as I understand it, it was not shown to you as an industrial hygienist using asbestos at Bound Brook. Would that be fair to say?

A. I don't recall having seen it.

Q. Now, did you have any general information that you gained as an industrial hygienist that certain types of asbestos were safer because they were shorter, the fibers were shorter? Is that something you ever learned?

A. Yes. As I gained more information on the character of asbestos fibers, it became evident that there were large differences in the type of fiber.

Q. And were you given to understand that

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if a fiber was shorter, it was safer than a fiber that was longer?

A. There were different considerations there. Being shorter would tend toward higher air concentrations, being more like an airborne dust. Being long, they may not be airborne and therefore not such a high hazard.

Q. Okay. So was it your understanding, then, that shorter asbestos could be more dangerous simply because it could be airborne and create more of a dust?

A. Similar to that effect.

Q. Okay. Were you familiar, Mr. Neal, with Johns Manville Company?

A. To some extent I was, yes.

Q. Were you familiar with the fact that they were a supplier of asbestos fiber back in the '60s and '70s?

A. I had the understanding that they furnished asbestos to the insulation fabricators.

Q. Were you given any information that you can recall while you were at Union Carbide, to the effect that Union Carbide Calidria

1 Neal

2 asbestos was in any sense any more dangerous than
3 Johns Manville asbestos?

4 A. I had not received any information of
5 that nature.

6 Q. I would also like you to look at
7 Exhibit 11, which is the Melon Institute report
8 of September 1971. And again would you agree
9 with me that this was a confidential report by
10 the Melon Institute and Union Carbide?

11 A. So it is labeled, yes.

12 Q. And you understand that to mean that
13 it is not for general dissemination?

14 A. Yes.

15 Q. And in fact, as you recall it, you
16 don't recall this report ever being shown to
17 you. Correct?

18 A. Correct.

19 MR. BROWNSON: That's all I've got.

20 Thanks.

21 CONTINUED EXAMINATION

22 BY MR. WILL:

23 Q. Just a couple of quick follow-ups.
24 You were asked this hypothetical question about
25 if the Carey industrial hygienists had come into

MANHATTAN REPORTING CORP.

UCAREF00014687

1 Neal

2 your plant at Bound Brook and taken samples.

3 Assuming that such a visit had
4 occurred, would you rely exclusively on what the
5 Carey people said and simply throw out your own
6 experience and your own work right out the
7 window?

8 A. No.

9 Q. Would it be fair to say that if you
10 were satisfied that the Carey people were
11 competent, that you simply would have
12 incorporated their information into your own
13 information?

14 A. No. It is important to maintain the
15 identification of where the samples came from.

16 Q. By that I meant, would you have taken
17 the information that Carey gave you, and taken
18 the information that you had already developed
19 yourself, and used both sets of information in
20 formulating a plan, an industrial hygiene plan,
21 for the plant?

22 A. Yes.

23 Q. You wouldn't have thrown out all of
24 your own experience and testing and just relied
25 solely on what Carey said, would you?

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UCAREF00014688

1 Neal

2 A. No, indeed.

3 Q. You were asked a couple of questions
4 about short and long fiber, and you indicated
5 that short fibers could become airborne dust more
6 easily than long fibers?

7 A. I believe so.

8 Q. But you also, I think you initially
9 indicated you read something that suggested that
10 biologically short fibers might be less of a
11 problem than a long fiber, is that right?

12 MR. BROWNSON: I'll object to the
13 form of the question, and also object to the
14 question on a number of other grounds. That
15 leads to, what you are now asking are for medical
16 opinions, and you have disqualified him from
17 doing that.

18 MR. WILL: I'm going to put this on
19 the record. You asked him if he had learned some
20 things about fiber differences, and his initial
21 response, as I understood it, was, he said that
22 yes, he learned that there was a difference with
23 short fiber from long fiber. And I thought I
24 heard him say in the context of the question that
25 it was his understanding, from the reading that

1 Neal

2 he had done, that the short fibers were less
3 hazardous. Then you asked him about whether you
4 could get more short fibers in the air. That's
5 the line of testimony I want to follow up on.

6 MR. BROWNSON: His testimony is what
7 it is. Why don't you just ask him a question
8 instead of leading him along with your view of
9 the world.

10 MR. WILL: I'm trying to, except I
11 keep getting interrupted.

12 MR. BROWNSON: No, I'm objecting to
13 the form of the question.

14 BY MR. WILL:

15 Q. All right. Let me go back, Mr. Neal,
16 and ask you this question. Was there a
17 particular length that was a cutoff between short
18 fiber and long fiber, in your mind?

19 A. Again, I'm not a pathologist, but
20 once the fibers are inhaled into the lungs, there
21 was a possibility that the shorter fibers can be,
22 by natural processes, removed more readily than a
23 heavier, long fiber.

24 Q. Okay. So you recognize, on the one
25 hand, that it is easier to get short fibers

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Neal

airborne?

MR. BROWNSON: Object to the form of the question.

A. Yes.

Q. Okay. But from your reading, it was your understanding that the lung could perhaps deal with short fibers more easily than long fibers.

A. Yes.

MR. BROWNSON: Object to the form of that question as well.

Q. Now, did you have in your own understanding a length cut-off, in microns or whatever, where a fiber was considered to be short versus long?

A. Not really.

Q. In your job in industrial hygiene at Bound Brook, did you ever have to research the medical literature about whether what are called amphibole fibers were more potent than Chrysotile fibers in terms of causing disease in humans?

A. No real --

MR. BROWNSON: I'll object to the question.

1 Neal

2 A. -- knowledge in depth.

3 Q. I just wondered if you ever had to
4 look at that question or investigate that.

5 A. No.

6 Q. Did you ever, in your job as an
7 industrial hygienist did you have to do any
8 investigation as to whether there were
9 differences in the biological potency of various
10 types of asbestos fibers?

11 A. No, I never got into that area.

12 Q. Mr. Neal, you indicated that Calidria
13 was never used in the production process as an
14 ordinary ingredient at Bound Brook.

15 A. Correct.

16 Q. Would it be fair, then, to say that
17 you never had occasion to consider whether the
18 biological effects of Calidria might be different
19 than the biological effects of the asbestos that
20 you were using?

21 A. I don't recall the biological effects
22 being part of the test that we conducted.

23 Q. Right. And you were not using
24 Calidria at the plant, right, in New Jersey?

25 MR. BROWNSON: I'll object to the

MANHATTAN REPORTING CORP.

UCAREF00014692

Neal

form.

Q. All right. Were you using Calidria asbestos at the plant in Bound Brook as an ordinary production ingredient?

A. No, we were not.

Q. Because you were not using it, did you ever have any reason to investigate whether it might be biologically different than other types of asbestos fibers?

A. I would have no reason.

MR. BROWNSON: I object to that.

Asked and answered.

Q. No reason to investigate that?

A. Yes.

MR. BROWNSON: Object to the form.

Q. If the plant had suddenly switched, and began using amosite or crocidolite asbestos at Bound Brook, would you at least have gone to look up and see whether that would have been different from Chrysotile?

A. Yes.

MR. WILL: Thank you.

CONTINUED EXAMINATION

BY MR. BROWNSON:

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Neal

Q. Let me ask you this, Mr. Neal. Just one final thing.

Would it be fair to say that in your work as an industrial hygienist at Bound Brook after 1972, your concern was making sure that asbestos exposures did not exceed the OSHA limit in the plant? Is that right?

A. That would not be a fair statement.

Q. You were concerned that asbestos air measurements did not exceed the OSHA limit, were you not?

A. That was one of our concerns.

Q. Because you recognize that if it exceeded the OSHA limit, you could be cited by OSHA for having too much asbestos in the air, is that correct?

A. Yes.

MR. GERSON: Are you asking if he recognized that, or if that was his concern?

Q. No, I'm asking him that, you knew if the asbestos in the air exceeded the OSHA limit, you could be cited by OSHA, correct?

A. Yes.

Q. And that was true regardless of the

1 Neal

2 type of asbestos, was it not?

3 A. Yes.

4 Q. It applied just as much to Union
5 Carbide Calidria asbestos as to the Carey
6 asbestos?

7 MR. GERSON: The OSHA standard.

8 Q. Right. And you didn't have to make
9 any investigation into the biological hazard of
10 the different types of asbestos on your own
11 because OSHA said it applies equally to all
12 types. Correct?

13 A. Yes.

14 MR. BROWNSON: Okay. That's all I've
15 got.

16 CONTINUED EXAMINATION

17 BY MR. WILL:

18 Q. One follow-up, Mr. Neal. From what
19 you know, was it good industrial hygiene practice
20 for a company to investigate the potential health
21 effects of the ingredients it is using in
22 producing its products?

23 A. Yes.

24 Q. And in terms of that good industrial
25 hygiene practice, was that something that you

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UCAREF00014695

1 Neal

2 were taught from the very first day you got into
3 the field of industrial hygiene?

4 A. Yes.

5 Q. And were you told that was something
6 new, or were you told that had been the practice
7 of industrial hygienists for years?

8 A. Simply part of the protocol of
9 industrial hygiene.

10 MR. GERSON: One second.

11 MR. WILL: Mr. Gerson wants to talk
12 to me. I think I'm done.

13 (Messrs. Gerson and Will conferring).

14 MR. WILL: I'm finished.

15 MR. BROWNSON: Just so I'm clear.

16 CONTINUED EXAMINATION

17 BY MR. BROWNSON:

18 Q. As far as you were concerned, from
19 '72 to '85 when you were an industrial hygienist
20 at Bound Brook, asbestos was asbestos; in other
21 words, all the different types of asbestos were
22 of concern to you with respect to exposure to the
23 workers.

24 A. Yes.

25 MR. BROWNSON: Okay. Thanks.

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UCAREF00014696

1 Neal

2 MR. WILL: One last question.

3 CONTINUED EXAMINATION

4 BY MR. WILL:

5 Q. As far as you knew, Mr. Neal, the
6 workers at Bound Brook were not being exposed to
7 Calidria asbestos, with the exception of that one
8 experiment in February of '73.

9 A. Correct.

10 MR. WILL: Okay.

11 MR. BROWNSON: Actually, there were
12 two experiments.

13 MR. WILL: One was in the R&D lab,
14 not a production facility.

15 MR. BROWNSON: Right. Okay. Now
16 we're done.

17 MR. WILL: We do want to read and
18 sign.

19 (Time noted: 1:20 pm)

20 _____
21 WILLIAM DOUGLAS NEAL

22 Subscribed and sworn to before me
23 this _____ day of _____, 1996.

24 _____
25

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UCAREF00014697

C E R T I F I C A T E

STATE OF NEW YORK)

: ss.

COUNTY OF NEW YORK)

I, DOMINICK M. TURSI, CM, a Certified
Shorthand Reporter and Notary Public within and
for the State of New York, do hereby certify:

That WILLIAM DOUGLAS NEAL, the
witness whose continued deposition is
hereinbefore set forth (pages 198 through 313)
was previously duly sworn, and that such
continued deposition is a true record of the
testimony of said witness.

I further certify that I am not
related to any of the parties to this action by
blood or marriage, and that I am in no way
interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto
set my hand this 17th day of December, 1996.



DOMINICK M. TURSI, CM, CSR

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E X H I B I T S

DESCRIPTION

PAGE LINE

(Neal Exhibit 15 for identification, document entitled Calidria Asbestos, Union Carbide Corporation, Report of Call; followed by a handwritten page entitled Airborne Fiber Counts Conducted at Union Carbide Corp.; followed by a written page with two paragraphs of notes; followed by a 33-page attachment)..... 200 8

(Neal Exhibit 16 for identification, February 11, 1972, letter from Mr. James Rawlings of Union Carbide Corporation to the Office of Safety and Health Standards in Washington, DC.)..... 215 25

(Neal Exhibit 17 for identification, February 29, 1972 letter from William N. Johnson, assistant to the product general manager asbestos at Union Carbide Mining and Metals Division, 270 Park Avenue, New York, New York.)..... 216 7

(Neal Exhibit 18 for identification, Statement of James W. Rawlings, Vice President Mining and Metals Division, Union Carbide Corporation, at the Hearing on Proposed Asbestos Standards under the Occupational Safety and Health Act, March 16, 1972.)..... 216 12

(Neal Exhibit 19 for identification, letter of November 14, 1975, from William C. Thurber, business manager, asbestos metals division, Union Carbide Corporation, to docket officer of the US Department of Labor.)..... 216 19

(Neal Exhibit 20 for identification, April 9, 1976 letter from Mr. Thurber to docket officer of the US Department of Labor.)..... 216 23

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2	(Neal Exhibit 21 for identification,		
3	December 3, 1990 letter from Union		
4	Carbide, Health, Safety and		
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6	Plevan, with attachment.).....	217	3
7	(Neal Exhibit 22 for identification,		
8	December 3, 1990 submission by Union		
9	Carbide to docket officer of the		
10	Occupational Safety and Health		
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12	(Neal Exhibit 20-A for identification,		
13	document entitled Presentation to the		
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