

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

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

This Document Relates to:

UNITED STATES DISTRICT COURT
FIFTH DIVISION, DISTRICT OF MINNESOTA
-----x
CONWED CORPORATION,
Plaintiff,

Case Number
5-92-88

- against -

UNION CARBIDE CHEMICALS AND PLASTICS
COMPANY, INC. (f/k/a) Union Carbide
Corporation),
Defendant,

- and -

UNION CARBIDE CHEMICALS AND PLASTICS
COMPANY, INC. (f/k/a Union Carbide
Corporation),

- against -

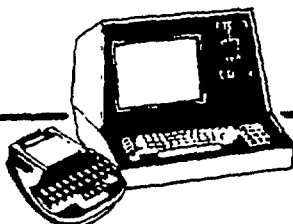
OWENS CORNING FIBERGLAS CORPORATION, et al., WALKER JAMAR COMPANY, A. W. KUETTEL & SONS, INC., API, INC., and MACARTHUR COMPANY.

Third-Party Defendants.

October 12, 1994

Doyle Reporting, Inc.

CERTIFIED STENOTYPE REPORTERS



WALTER SHAPIRO, CSR
CHARLES SHAPIRO, CSR

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FILE COPY

Rhodes, Harrison B.

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October 12, 1994
4:20 p.m.

Deposition of HARRISON B. RHODES, taken by
Plaintiff pursuant to notice, at the law offices
of Kelley, Drye & Warren, Esqs., 101 Park Avenue,
New York, New York, before Paul Kirschen,
Certified Shorthand Reporter and Notary Public
within and for the State of New York.

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2 H A R R I S O N B . R H O D E S , having
3 been first duly sworn by a Notary Public of
4 the State of New York (Paul Kirschen), was
5 examined and testified as follows:

6 EXAMINATION.

7 BY MR. BROWNSON:

8 Q. Dr. Rhodes, as I told you earlier, my
9 name is Bob Brownson, and I am representing the
10 Conwed Corporation, who is a plaintiff in a
11 lawsuit against Union Carbide Corporation. We are
12 here today to take your deposition in connection
13 with that case.

14 I understand you have had your
15 deposition taken before, so I won't bore you with
16 a lot of rules about depositions. But you
17 understand that you are under oath here today?

18 A. Yes.

19 Q. I would just ask that you answer
20 audibly, out loud. Don't shake your head or
21 mumble, that sort of thing, because the court
22 reporter can't take that down.

23 A. O.K.

24 Q. And try not to speak when I am
25 speaking, and I will do the same, so each of us

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Rhodes

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2 speaks clearly and one at a time, so the reporter
3 can take this down more easily.

4 Will you do that?

5 A. Yes.

6 Q. Finally, if any question is unclear
7 to you or if you don't understand the question,
8 please tell me that before you answer the
9 question, so we have a record that reflects
10 answers to questions that you understood.

11 A. Yes.

12 Q. Dr. Rhodes, before you arrived here
13 this morning for this deposition, did you know
14 anything about this particular lawsuit, the case
15 of Conwed versus Union Carbide?

16 A. I arrived here several days ago and
17 reviewed at my request a variety of items,
18 basically dust counting files, the Conwed core
19 reports, the Conwed dust counting in particular,
20 the section of the deposition that Langer gave on
21 his experiments.

22 Q. The deposition by Dr. Langer in this
23 case?

24 A. In this case.

25 Q. O.K.

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Rhodes

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2 actual sampling was for a period ranging from 49
3 to about 72 minutes, usually about an hour; does
4 that sound right?

5 A. Yes.

6 Q. But then the results are reported --
7 and I am looking at page number 3 -- the results
8 are reported as chrysotile asbestos.

9 Do you see that?

10 A. Yes.

11 Q. And a figure is then given there. I
12 am looking at the first results; for example, page
13 3, 3.4.

14 Do you see that?

15 A. Yes.

16 Q. Now, I assume that reference to
17 fibers per cubic centimeter of air --

18 A. Yes.

19 Q. -- those are fibers greater than five
20 microns in length?

21 A. That is the way the column is headed.

22 Q. Is that an eight-hour time-weighted
23 average?

24 A. No. That is a ceiling for that time
25 period.

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Rhodes

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Q. So that is based upon 60 minutes of sampling?

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A. On that one, yes.

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Q. During the time Union Carbide measured asbestos levels in the air at either its own facilities or at customer facilities, do you know if any measurements were made of fibers less than five microns in length?

10

11

A. I do not know of any measurements less than five microns.

12

13

14

Q. You said that the measurement length of five microns was chosen because that is the OSHA standard?

15

A. Yes.

16

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Q. But in terms of those measurements that were done at King City before OSHA, from '63 to about '71, '72, would you agree with me that those were also measured and reported only as fibers greater than five microns in length?

21

22

A. I don't know. I have not looked at those reports.

23

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Q. Do you know if those reports exist?

A. I do not know if they exist.

Q. So, as far as you know, those reports

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Rhodes

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2 may or may not have measured fibers less than five
3 microns in length?

4 A. As far as I know. I do not know
5 whether that is so.

6 Q. You don't know one way or another?

7 A. I don't know one way or another.

8 Q. You are aware of the fact, of course,
9 that in terms of physical size, Calidria asbestos
10 fiber is mostly less than five microns in length?

11 A. By fiber number or by weight?

12 Q. By fiber number.

13 A. The number of fibers smaller than
14 five is considerably more than the number of
15 fibers larger.

16 Q. Have you seen size distribution
17 measurements or data for Calidria asbestos fiber
18 that shows, on a percentage basis, how many fibers
19 are of different sizes of lengths?

20 A. Yes.

21 Q. As you sit here today, can you recall
22 what that data showed?

23 A. The only thing I can recall is that
24 there were a fairly substantial percentage by
25 weight that were not only longer than five microns

2 but much longer.

3 Q. Well, in terms of number of fibers,
4 do you recall what the percentages were that were
5 greater than five microns?

6 A. No.

7 Q. Would you agree with me that,
8 measuring by weight, a greater percentage were
9 greater than five microns in length than if you
10 just measure by total number?

11 A. To the best of my recollection, I
12 can't say more, but a very substantial percentage
13 were using larger fibers.

14 Q. That is because larger fibers are
15 heavier?

16 A. Bigger and heavier.

17 Q. Now, do you know what the unit --
18 let's go again --

19 A. Are we done with this exhibit?

20 Q. You can look at it if you want to.
21 We will get back to it.

22 But using the phase contrast
23 microscope technique, do you know what the limit
24 of detection was for fiber diameter? In other
25 words, what is the thinnest fiber that could be

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MR. WILL: Read the title.

A. "Occurrence of Ultra Fine Fibers in
Calidria RG244 asbestos," August 24, 1978.

Q. Is it a memorandum or a report?

A. Informal report.

Q. Addressed to Mr. Myers, who is the
manager of the King City plant?

A. Yes.

Q. It is written by you?

A. Yes.

Q. And the work done by Mr. Engels and
Glenda J. Spencer. August 24, 1978.

Do you remember why this report was
prepared?

A. Yes.

Q. Why was that?

A. In our customer sampling program, we
had suddenly picked up a couple of high fiber
counts in the RG244 product, which normally
gave -- routinely gave very, very low fiber
counts. And we also had had a report from a
customer, it states here, that their fiber counts
were now one to two; and I think, from what I read
here, also, an OSHA inspection got a very high

1 fiber count.

2 Q. At that customer's plant?

3 A. At the customer's plant.

4 So we went back and looked at the
5 filters. We had saved all the filters from the
6 customer counts over the years and stored them, so
7 we had them available to go back and look at them.
8 And we went back and looked at them and, in
9 general, found that there were -- in some of the
10 filters, there were fibers longer than five
11 microns that were also very fine. They were at
12 the limit of detection.

13 Q. By the polarized --

14 A. By the phase contrast microscopy.

15 If you had a microscope that was on
16 the good side, you could see them, and if you
17 didn't, you didn't.

18 And we had also been making -- had
19 made a couple of increases in capacity. The RG244
20 was manufactured in a separate circuit, and we had
21 made capacity increases and some processing
22 changes in that time frame. And these sections,
23 identifiable times when you could -- when you
24 found these marginally detectable fibers, seemed
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Rhodes

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2 to -- could represent the times these changes had
3 been made.

4 Q. O.K. And you drew some conclusions
5 from them, which you set out in the report. And
6 we don't need to belabor them in detail. But my
7 question is:

8 Do you know whether the information
9 contained in this report or the conclusions
10 contained in this report were then given to the
11 customers, or was this retained for Union
12 Carbide's internal use?

13 A. I don't know whether it was given to
14 customers or not.

15 I believe it caused us to start
16 running internal QC and adjust our processing
17 conditions so that we were not doing this.

18 Q. The report has the heading 'on it
19 "Business confidential."

20 Do you know what was meant by that?

21 A. That was meant to -- basically, to go
22 to a very small distribution, that you see there.

23 Q. Why did you place that heading on the
24 report?

25 A. Because we wanted, basically, to

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Rhodes

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Q. Doctor, by way of clarification, if
3 you are looking at fibers that are longer than
4 five microns, talking only about that type of
5 fiber, would you expect to be able to see all
6 of the fibers longer than five microns with
7 PCM, if you are properly trained in that
8 microscope?

9

A. No.

10

Q. Do you have any sense of what the
11 percentage is?

12

A. No.

13

Q. All right. Doctor, am I correct, do
14 I understand correctly from your last answer, that
15 you don't have any sense of what percentage of the
16 fibers over five microns you would be able to see
17 with PCM?

18

MR. BROWNSON: I will object to the
19 form of the question.

20

MR. WILL: I will rephrase it.

21

Q. Do you have any sense, Doctor --
22 let's talk about Calidria asbestos -- of what
23 percentage of the fibers over five microns that
24 exist in a sample you would be able to see with
25 PCM, the way you did it -- the way it was done

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Rhodes

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2 when you were at Union Carbide?

3 A. I would think you would be able to
4 see a substantial proportion of them.

5 Q. Are you able to say with any more
6 specificity than that?

7 A. I can't say with any more
8 specificity.

9 MR. WILL: O.K.

10 FURTHER EXAMINATION

11 BY MR. BROWNSON:

12 Q. Have you seen any Calidria asbestos
13 fiber size distribution data that actually tells
14 you what portion of them are detectable by PCM and
15 what are not?

16 A. No.

17 MR. WILL: We are talking about
18 fibers over five microns?

19 MR. BROWNSON: Over five microns.

20 A. I have not seen any data of that
21 type.

22 FURTHER EXAMINATION

23 BY MR. WILL:

24 Q. Doctor, did you do any studies
25 actually comparing asbestos fiber from the Union

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2 Carbide mine with fiber from the Johns-Manville
3 mine or fiber from the Atlas mine in the Calidria
4 deposit?

5 A. I did not.

6 Q. Are you aware of any such
7 studies being done by other people at Union
8 Carbide?

9 A. There may have been work in that area
10 done by Dr. Mumpton and another gentleman whose
11 name escapes me, back in the early days of the
12 project. Dr. Shwatzdiak.

13 Q. If there was such work, we should ask
14 Mumpton and Shwatzdiak?

15 A. Yes.

16 Q. They would be the ones that know
17 about it if there was any such work?

18 A. Yes.

19 MR. WILL: All right.

20 MR. WILL: That is all I've got.

21 MR. BROWNSON: Just for the record,
22 you will put the exhibits with the original
23 and then copy exhibits for the copies. The
24 reporter can send me the original for later
25 filing with the court.

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MR. WILL: Right.
And he does want to read it and sign
it.

MR. BROWNSON: Thank you.
(Time noted: 4:20 p.m.)

Subscribed and sworn to before me
this _____ day of _____ 1994

C E R T I F I C A T E

STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

I, PAUL KIRSCHEN, a Certified
Shorthand Reporter and Notary Public within
and for the State of New York, do hereby
certify:

That I reported the proceedings in
the within-entitled matter, and that the
within transcript is a true record of such
proceedings.

I further certify that I am not
related, by blood or marriage, to any of
the parties in this matter and that I am in
no way interested in the outcome of this
matter.

IN WITNESS WHEREOF, I have hereunto
set my hand this 19th day of October, 1994.



PAUL KIRSCHEN, CSR