

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

MARIE B. SOIGNET, et al.,)
Plaintiffs,) CIVIL ACTION
vs.) FILE NO. B-86-1193
MONTELLO, INC.,)
Defendant.)

- - -

Deposition of DR. HILTON C. LEWINSOHN, taken
on behalf of the Plaintiffs, in accordance with the
Federal Rules of Civil Procedure, before Janet K.
Wilson, Certified Court Reporter and Notary Public,
at Marriott Airport Hotel, Room 922, Atlanta,
Georgia, on the 9th day of March 1989, commencing at
the hour of 2:00 p.m.

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1 APPEARANCES OF COUNSEL:

2 On behalf of the
3 Plaintiffs:

DANIEL J. CARUSO, Esq.

4 On behalf of the
5 Defendant:HENRY G. GARRARD, III, Esq.
JOSEPH GUYTON, Esq.

6 Also Present:

Ms. Christina Berk

- - -

7 MR. CARUSO: This deposition is being
8 taken for all purposes allowed under the Federal
9 Rules of Civil Procedure. All objections except to
10 form of the question are reserved until the time of
11 trial.

12 Dr. Lewinsohn, you have a right to read
13 and sign this deposition or you can waive. What is
14 your pleasure with that regard?

15 THE WITNESS: I'd like to read it.

16 MR. CARUSO: Make a note that the doctor
17 would like to read the deposition.

18 May I ask to whom should the deposition
19 be sent for getting him to read it?

20 MR. GARRARD: Directly to him; and it's
21 agreeable with me if he signs it in front of any
22 notary.

23 DR. HILTON C. LEWINSOHN,
24 having been first duly sworn, was examined and
25 testified as follows:

CROSS-EXAMINATION

BY MR. CARUSO:

Q. Would you state your name for the record, please.

A. Full name is Hilton Cecil Lewinsohn, L-e-w-i-n-s-o-h-n.

Q. And by whom are you presently employed, Dr. Lewinsohn?

A. By Union Carbide Corporation.

Q. And in what capacity?

A. I'm the medical director for the Chemicals and Plastics Group.

Q. How long have you had the position of medical director for the Chemicals and Plastics Group at Union Carbide?

A. Since 1986, I believe.

Q. Did you hold another position with Union Carbide before 1986?

A. Yes. I was then assistant corporate medical director.

Q. How long did you hold that position?

A. I joined Union Carbide in July of 1982.

Q. So from July of '82 until '86 you were the assistant corporate medical director, and now you're the medical director?

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1 A. Well, not exactly.

2 Q. What exactly?

3 A. I was assistant corporate medical
4 director; I'm now medical director of the Chemicals
5 and Plastics Group, which is a business group of
6 Union Carbide.

7 Q. And when you were assistant medical
8 director, who was the corporate medical director?

9 A. Dr. Thomas Lincoln.

10 Q. And while you were assistant corporate
11 medical director, was there a medical director for
12 the Chemicals and Plastics Group?

13 A. We were differently structured in those
14 days, and there was an assistant medical director --
15 assistant corporate medical director -- who had
16 responsibilities for the Chemicals and Plastics
17 Divisions; but there was no business group as such.
18 You know, it's all to do with the corporate
19 structure.

20 Q. Let's just talk about that for a second.
21 You got to Union Carbide in 1986; correct?

22 A. 1982.

23 Q. Excuse me. And when you arrived at Union
24 Carbide, since you were the assistant corporate
25 medical director, I take it there was a Corporate

1 Medical Department?

2 A. That's right; and there were other
3 assistant corporate medical directors. I was not
4 the only one.

5 Q. As assistant corporate medical director
6 in 1982, were you responsible for any particular
7 division of Union Carbide?

8 A. Yes. I had responsibility for -- I'm
9 trying to think back -- Carbon Products Division,
10 for the Home and Automotive Division, Battery
11 Products Division, and Specialty Polymers and
12 Composites Division.

13 Q. Did any of those divisions you just
14 mentioned have anything to do with the asbestos
15 products of Union Carbide?

16 A. No.

17 Q. Who was it that had that responsibility
18 when you got there?

19 A. That was Dr. Fortney, F-o-r-t-n-e-y.

20 Q. Is that Guy Fortney?

21 A. That's the one.

22 Q. Does he still work for Union Carbide?

23 A. He does, yes.

24 Q. What is his position?

25 A. He's corporate medical director.

1 Q. And you held the position of assistant
2 corporate medical director from 1982 until 1986?

3 A. Right.

4 Q. And then in 1986 you became a medical
5 director for the Chemicals and Plastics Group?

6 A. That's correct.

7 Q. And Dr. Fortney, somewhere along the way,
8 became the corporate medical director?

9 A. About the same time.

10 Q. What happened to Dr. Lincoln?

11 A. He retired.

12 Q. Does that mean in the overall chain of
13 command here you somehow report to Dr. Fortney or --

14 A. No, I don't report to Dr. Fortney. He is
15 at the corporate level; I'm in a business group.

16 I report to the director of Occupational
17 Health, Product Safety and Liability in the Chemical
18 Plastics Group.

19 Q. Does Union Carbide still make any
20 products or sell any products that have an asbestos
21 component, to your knowledge?

22 A. Not as far as I'm aware.

23 Q. So between 1982 and 1986, it would have
24 been Dr. Guy Fortney -- if I'm right about this --
25 who was involved with the asbestos products?

1 A. Yes; it was his division.

2 Q. What division was that?

3 A. I think it was Metals Division in those
4 days.

5 Q. You do have some experience with
6 asbestos; do you not?

7 A. Yes, I do.

8 Q. And it goes back, as I understand it, to
9 the 1960s --

10 A. It does.

11 Q. -- when you were a member of the
12 Pneumoconiosis Medical Panel in England?

13 A. In Manchester, England.

14 Q. Can you tell us what that panel was all
15 about? What did it do?

16 A. Well, the panel was part of the ministry
17 of pensions and national insurance, as it was known
18 in those days, and its functions were twofold,
19 basically.

20 One was to review claims made by workers
21 in different industries for -- I'm trying to think
22 of the word -- for what the benefit was called --
23 industrial insurance injuries benefits.

24 Q. Like a Workers' Compensation?

25 A. Like a Workers' Compensation. They made

1 the claims. The lay administration then decided if
2 they had to be reviewed or not by members of the
3 panel; and then the members of the panel would
4 examine the claimants, review their cases, and make
5 a diagnosis upon which the lay administration then
6 determined what amount of compensation should be
7 paid.

8 The second function of the panel was to
9 carry out initial and periodic medical examinations
10 under the provisions of the Industrial Insurance
11 Injuries Act. So we went to asbestos factories, we
12 went to quarries, potteries, and examined newly
13 hired employees and active employees periodically to
14 determine, first of all, in the case of newly hired
15 employees, whether there was any reason why they
16 should not do that particular job because of any
17 medical or physical reason; and in the case of
18 active employees, to determine whether they were
19 suffering from any work-related effects which would
20 entitle them either to compensation or prompt us to
21 suspend them from that aspect, because we had that
22 priority.

23 Q. Since the title of this panel was the
24 Pneumoconiosis Panel, I take it one of the things
25 you were looking for was asbestosis in the workers?

1 A. In the asbestos workers, we were looking
2 for two things.

3 In the initial examination, we were
4 looking to see that people newly hired in the
5 industry didn't have any medical contraindications
6 if they were potentially exposed; and examining the
7 workers to see if they weren't suffering from any
8 ill effects.

9 Q. One of which would have been asbestosis?

10 A. Yes.

11 Q. And what years are we talking about?
12 1963 --

13 A. 1963 to 1966.

14 Q. What was it about a person that would
15 disqualify them from working in an asbestos
16 environment under the guidelines of the
17 Pneumoconiosis Panel?

18 A. Any preexisting chest disease that might
19 have made them more susceptible or less able to cope
20 in a dusty job or a job where there was potential
21 for dusty exposure.

22 Q. Such as --

23 A. Such as tuberculosis, active
24 tuberculosis, or severe chronic bronchitis, severe
25 heart disease in which the lungs were likely to be

1 comprised and not able to function effectively
2 because of a heart problem; things like that.

3 Q. So you did not want a person whose either
4 lung function or heart function was already
5 comprised to be working in an asbestos environment?

6 A. Correct; or somebody who already had
7 worked previously in an environment of that kind,
8 coal mines or any other dusty job which could also
9 have comprised them.

10 Q. So a person, for example, coming from,
11 say, a coal mine in Wales into an asbestos factory
12 in Manchester --

13 A. -- would be carefully looked at.

14 Q. Would he have to exhibit some type of
15 dust-related disease before you would have
16 disqualified him, or would the history alone
17 disqualify him?

18 A. No, the history alone would not
19 disqualify him. He had to have some evidence of
20 being impaired in some way.

21 Q. Is it fair to say that, to your
22 knowledge, in a period of time 1963 to 1966 that
23 asbestosis was a recognized disease associated with
24 asbestos?

25 A. Yes.

1 Q. Was there at that time, in 1963 to 1966,
2 a recognized association -- by that I mean one which
3 would be recognized by people with your expertise --
4 between asbestos exposure and lung cancer?

5 MR. GARRARD: I'm going to object to your
6 question. Dr. Lewinsohn is not here as a state of
7 the art witness, was not employed by Union Carbide
8 at that time, and that is a question that is outside
9 any relevance of his testimony whatsoever.

10 Q. You can answer the question.

11 A. Can you just repeat it please?

12 Q. My question inartfully stated was -- if I
13 can try to recall it -- was that in this period,
14 from 1963 to 1966, did experts in the occupational
15 disease area such as yourself at the time recognize
16 an association between asbestos exposure and lung
17 cancer?

18 MR. GARRARD: Same objection.

19 Q. And I mean bronchiogenic carcinoma.

20 MR. GUYTON: I'll further object. This
21 witness has not been listed as an expert witness in
22 this case.

23 A. I'm going to make a comment. At that
24 time I would have hardly had been an expert in that
25 area; but to answer your question, I believe that

1 in -- by that time the association between asbestos
2 exposure and the development of lung cancer had been
3 recognized, although perhaps not universally
4 accepted.

5 Q. Was there a time in the late sixties or
6 early seventies -- we keep going back in time,
7 okay -- but when there was an acceptance of the
8 association between lung cancers and exposure to
9 asbestos?

10 MR. GARRARD: I object to your question
11 again, because he is not here as an expert on state
12 of the art matters. I think that's what you were
13 inquiring into. And I'm going to direct the doctor
14 not to answer the question.

15 MR. CARUSO: Well, the question goes to
16 what everybody knew about asbestos at a particular
17 time, which in turn relates to what each individual
18 company's obligation is to warn; and secondly, to
19 the question of whether or not this product under
20 the law is unreasonably dangerous for its intended
21 use. Where he was is of no consequence.

22 MR. GARRARD: He was not an employee of
23 Union Carbide at the time. What he may or may not
24 have thought at that time is not relevant as to
25 Union Carbide.

1 MR. CARUSO: Well, I'm not asking him
2 what he thought; I'm asking him --

3 MR. GARRARD: He is also not put forward
4 as an expert on state of the art matters by Union
5 Carbide, has not been listed as an expert, and I
6 think it's outside the field of inquiry permissible
7 as to this witness.

8 MR. CARUSO: I'm going to reserve my
9 right to go back to that and possibly call the
10 Judge.

11 Q. Doctor, over the years you have studied
12 and kept up, I take it, with information dealing
13 with asbestos and its association with various lung
14 diseases?

15 A. Up to a point in time.

16 Q. Would it be fair to say, then, in the
17 late 1960s and early 1970s this was a subject that
18 you were keeping abreast of, the relationship
19 between asbestos and asbestos-related diseases?

20 A. Yes, that's fair enough.

21 Q. And it is true, is it not, Doctor, that
22 in that period of time between the late 1960s --
23 we'll talk about, say, 1965 up until about 1975 --
24 articles were published by various individuals and
25 groups demonstrating the association of asbestos

1 with certain illnesses?

2 A. Yes, there was literature containing such
3 articles.

4 Q. And there were articles that were
5 published at that time that linked asbestos with
6 asbestosis; is that correct?

7 A. Yes.

8 Q. And there were articles that were
9 published that linked asbestos with lung cancer?

10 A. Yes.

11 Q. And there were publications that came out
12 as early as 1960 by Dr. Wagner linking asbestos
13 exposure with a disease process known as
14 mesothelioma; is that correct?

15 A. I prefer the use of the word "associated"
16 rather than "linking"; yes.

17 MR. GARRARD: Excuse me. Did you say
18 chrysotile asbestos?

19 MR. CARUSO: No; I said asbestos.

20 Q. In the articles associating asbestos with
21 mesothelioma which appeared in the sixties -- the
22 early sixties, did those articles draw a distinction
23 between crocidolite and chrysotile as a cause of
24 mesothelioma, if you can recall?

25 MR. GARRARD: I'm going to object to your

1 question unless you tell him what articles you are
2 talking about. There is a lot of literature in the
3 time frame that you are mentioning. Also, I further
4 object that he is not listed as an expert, and you
5 are at this point in time doing nothing but a state
6 of the art examination of this witness.

7 He is not a state of the art expert in
8 this case. He also was not an employee of Union
9 Carbide at that time.

10 Q. I don't even know what that means, okay;
11 but I'll do it this way.

12 After you left the Pneumoconiosis Panel
13 in 1965 or -'6 --

14 A. '66.

15 Q. -- you went to work for an outfit called
16 Turner Brothers?

17 A. Turner Brothers Asbestos Company,
18 Limited.

19 Q. And where is Turner Brothers Asbestos
20 Company, Limited, located?

21 A. In Rochdale, Lancashire, England.

22 Q. And what was your job with Turner
23 Brothers Asbestos Company, Limited?

24 A. When I went there I went as a medical
25 officer.

1 Q. And what were your job duties as a
2 medical officer?

3 A. To do initial and periodic examinations
4 of employees working with asbestos and -- also to
5 see any other workers that needed my advice and
6 counsel.

7 Q. You were what we call the company doctor?

8 A. That's right; I ran the medical
9 department.

10 Q. There was a doctor there also named Knox?

11 A. Dr. Knox retired in 1965.

12 Q. And did you, in essence, take his
13 position when you went there?

14 A. Yes -- not fully. I took the title of
15 medical officer; Dr. Knox had had the title of chief
16 medical officer.

17 He remained on as a consultant even after
18 retirement, so there was still another notch on the
19 ladder.

20 Q. You said Turner Brothers Asbestos
21 Company. What was the business of Turner Brothers
22 Asbestos Company? Did it make asbestos products?

23 A. Turner Brothers Asbestos Company in
24 Rochdale, plant in Rochdale, manufactured asbestos
25 textiles.

1 Q. So it was a textile manufacturing plant?

2 A. In Rochdale, yes.

3 Q. Now, was there another Turner Brothers
4 plant that wasn't in Rochdale that did something
5 else?

6 A. There was another one in Hindley Green,
7 also in Lancashire, which made asbestos textiles;
8 also made -- they made -- there was glass fiber
9 there; it was a glass fiber plant. And there was a
10 plant in Dungannon, which is in Northern Ireland,
11 which made glass fiber.

12 And there was a plant in the south of
13 England in, S-l-o-u-g-h, I think it was in Slough,
14 that also made glass fiber.

15 Q. Now, were you the medical officer for all
16 these plants?

17 A. Well, I was the medical officer for
18 Turner Brothers Asbestos Company, Limited; and as
19 such I had, if you like, oversight or supervisory
20 responsibilities for all these plants, yes. I
21 didn't go to all these plants to perform my hands-on
22 duties there.

23 Q. You had other doctors --

24 A. There were other part-time -- mostly
25 part-time -- contract positions.

1 Q. How long did you hold this job at Turner
2 Brothers?

3 A. Well, I was -- I became -- I was with the
4 Turner and Newall group of companies in which Turner
5 Brothers Asbestos Company was a subsidiary for a
6 period of approximately ten years; from 1966 to
7 1976. Then I became the group medical advisor to
8 Turner and Newall Company, I think about 1969; but I
9 don't remember the dates offhand. Maybe later; I
10 just don't remember.

11 Q. Now, in that period of time, between 1966
12 and 1976, since you were a medical officer for an
13 asbestos-related concern, I take it it was up to you
14 to keep abreast of what was going on in the medical
15 and scientific community regarding asbestos and the
16 possible health effects associated with asbestos; is
17 that fair?

18 A. Yes; that was expected.

19 Q. The type of asbestos fiber that was being
20 used by Turner Brothers in this period of time, what
21 type was it? Do you know?

22 A. Turner Brothers?

23 Q. Yes.

24 A. They basically were using chrysotile
25 asbestos fiber; but they also used some crocidolite.

1 Q. You said Turner Brothers, and you nodded
2 your head at me. Was there some other one of these
3 plants that was using something else besides --

4 A. Well, we talked about Turner Brothers
5 Asbestos; not about Turner and Newall as a
6 corporation.

7 Q. Were they doing something different than
8 Turner Brothers Asbestos?

9 A. Yeah. They were a large corporation and
10 involved in other areas of the asbestos business.

11 Q. Like --

12 A. They had mining business and they had
13 asbestos cement interests.

14 Q. Now, where were their mines?

15 A. When I first went there, of course, they
16 were still operating the mine in Southern Rhodesia,
17 which is now Zimbabwe. Then Rhodesia declared its
18 unilateral declaration of independence, and that
19 source of supply was cut off.

20 They had mines in north British Columbia,
21 Cassiar, and there was a mine in Swaziland.

22 Q. Now, did you have anything to do with
23 these mines by way of your medical directorship?

24 A. Well, I knew about them, and I visited
25 both of them. I didn't visit Rhodesia because of

1 the political situation.

2 Q. Was there a medical person at the mines
3 who was reporting to you?

4 A. Not reporting to me, no; reported to my
5 management. I didn't really have very much direct
6 contact with the people overseas.

7 Q. So you were not being given any reports
8 or anything about any incidents of illnesses or
9 deaths or anything arising from the mine operations?

10 A. I wasn't, no.

11 Q. Your medical responsibilities at Turner
12 Brothers and then with Turner and Newall dealt
13 mostly with the asbestos-manufacturing aspect as
14 opposed to the mining aspect?

15 A. That's hard to say. Basically, my duties
16 were in the United Kingdom in the mines there; but I
17 also gave advice and service to all of the
18 corporation, which included all its operations
19 worldwide. I didn't, again, necessarily get
20 involved in the day-to-day problems of those
21 organizations.

22 Q. Were you ever questioned -- or your
23 advice sought is probably a better way to ask that
24 question -- by the corporation of Turner Brothers
25 and/or Turner and Newall with regard to the health

1 effects associated with asbestos exposure?

2 A. I believe I was.

3 Q. Do you know, how did that come to pass?

4 A. How?

5 Q. Yes.

6 A. Well, as part of my job I sat on a
7 committee known as the Health Committee where these
8 matters were regularly discussed.

9 Q. Was the question of asbestos as a
10 possible cause of mesothelioma ever discussed?

11 A. Yes, it was.

12 Q. And do you know approximately when that
13 would have been?

14 A. Well, when I joined Turner Brothers in
15 1966, by that time I believe that the issue had
16 already arisen.

17 Q. Did you ever advise anyone at Turner
18 Brothers or Turner and Newall between 1966 and 1976
19 that chrysotile asbestos would not cause
20 mesothelioma?

21 MR. GARRARD: I'm going to object to your
22 question in terms of what, if anything, he advised
23 Turner Brothers or Turner and Newall, which is not
24 relevant; they're not a part of this lawsuit.

25 Just object; it's not relevant to any

1 issue in this case. And I ask you, Doctor, if you
2 try to recollect anything back that far, I ask you
3 not to speculate in terms of whatever may have been
4 said or done.

5 A. I have no intention of speculating on
6 what I specifically advised or didn't advise at that
7 point in time. Unless you could refresh my memory,
8 I would prefer not to speculate.

9 Q. Well, Doctor, do you think in the period
10 of time between 1966 and 1976 that the body of
11 medical science available to you as a director of
12 medical services at Turner Brothers would have
13 allowed you to tell your company that chrysotile
14 asbestos had been eliminated as a cause of
15 mesothelioma in man?

16 MR. GARRARD: I again object to that
17 because you begin trying to play state of the art
18 with this doctor who has not been listed as a state
19 of the art expert and was not an employee of Union
20 Carbide at that time. I also do not think it is an
21 answerable question in its current form.

22 Q. Can you answer it?

23 A. If those are the words that you think I
24 would use, no, I can't.

25 Q. I'm not saying that's the word you would

1 use; I'm asking can you answer that question as I've
2 posed it?

3 A. I just don't believe it's a question
4 that's -- that is answerable. I think it's badly
5 framed and to me somewhat unintelligible.

6 MR. CARUSO: Let's see what's
7 unintelligible about it. Read it back, please.

8 (The record was read by the reporter.)

9 A. I still don't think I can commit myself
10 to answer a question like that. I just don't
11 believe that it's giving me a viable opportunity to
12 tackle the issue, it really isn't.

13 Q. What's wrong with the question?

14 A. I think you're using words and you're
15 making a definitive statement, which I'm not
16 prepared to argue about because I don't think it's
17 valid or viable.

18 Q. What isn't valid or viable?

19 A. Well, you use words like "eliminated"; I
20 don't know what that means. Can you tell me what
21 that means?

22 Q. Well, I haven't got a dictionary here;
23 but "eliminate" generally means that you've taken it
24 out of the picture, you've taken it away, you've
25 eliminated it.

1 A. But you know for yourself that that's not
2 the case; there is even today debate as to whether
3 chrysotile is involved in the production of
4 mesothelioma.

5 Q. So you would agree with me that even as
6 of today there is still a debate going on as to
7 whether or not chrysotile is or is not associated
8 with mesothelioma?

9 A. There is -- yeah, I would say that there
10 is a debate going on, you know, between experts.

11 Q. And is that debate today more intense
12 than it was back in the late sixties, early
13 seventies, middle seventies?

14 A. I think the debate today has served to
15 clarify a number of the -- what in the early sixties
16 and seventies were rather vague assumptions.

17 Q. Do you know a man named I. C. Sayers,
18 S-a-y-e-r-s?

19 A. No, I do not. No.

20 Q. I'm going to show you a document that is
21 entitled Asbestos as a Health Hazard in the United
22 Kingdom by I. C. Sayers -- and you say you don't
23 know the man. Let me ask you if you've ever seen
24 this document before?

25 A. Yes, I've glimpsed at this document; I

1 haven't read it.

2 Q. You say you've glimpsed at it. In what
3 context were you called upon to glimpse at that
4 document?

5 A. I believe among some of the items I was
6 shown by Mr. Garrard here in preparation for this
7 deposition, this is one of the documents produced;
8 but I haven't read it.

9 Q. Did Mr. Garrard represent to you that
10 this document was a Union Carbide document?

11 A. No; he gave me no indication as to where
12 that document originated or what its purpose was.

13 Q. Had you never seen this before
14 Mr. Garrard showed this to you today?

15 A. That's correct.

16 Q. So you don't know whether or not this
17 document which is referred to as Asbestos as a
18 Health Hazard in the United Kingdom is, in fact, a
19 Union Carbide document?

20 A. I don't know the origin or the purpose of
21 it, no.

22 Q. And you've never heard of I. C. Sayers
23 before this deposition?

24 A. (Witness shakes head negatively.)
25 Don't know who he is.

1 Q. Now, this document has a date on it of
2 1967, okay? So now we're going back another time
3 capsule again to 1967 --

4 MR. GUYTON: I'll object to that. From
5 what I can see on the front of that, that 1967 is
6 not printed in any fashion. Somebody apparently has
7 written that on that.

8 Q. Let's assume it's written in 1967,
9 subject to counsel's objection here. And in this
10 document there is a paragraph which is numbered 6.1
11 under the title Moral Issues, and it says: "There
12 seems little doubt that the toxic effects of our
13 Coalinga product is still largely unknown. There is
14 a general inference that crocidolite is more liable
15 to produce mesothelioma. Exoneration of chrysotile
16 has not been made, however. A discussion with Dr.
17 W. Taylor with the Department of Social Medicine,
18 Queens College, two years again revealed that
19 concern over asbestosis is still increasing and that
20 chrysotile is definitely implicated along with other
21 types of asbestos."

22 Now, with regard to the statement
23 contained in that report -- this is 1967, okay --
24 "there is a general inference that crocidolite is
25 more likely to produce mesothelioma. Exoneration of

1 chrysotile has not been made, however."

2 Does that generally, to your
3 recollection, reflect accurately the state of
4 knowledge at that time of the difference between
5 crocidolite and chrysotile as an associated fiber
6 with mesothelioma?

7 MR. GARRARD: I'm going to object to your
8 question in that your question, once again, goes to
9 a state of the art question; and this doctor is not
10 put forward as a state of the art expert, nor was he
11 an employee of Union Carbide in 1967.

12 MR. CARUSO: I am not asking him for an
13 expert opinion.

14 MR. GARRARD: But you asked him if that
15 comports with his opinion as to what the literature
16 showed at that time.

17 MR. CARUSO: This man was working in the
18 field at that time.

19 MR. GARRARD: He was not an employee of
20 Union Carbide.

21 MR. CARUSO: Doesn't make any difference.

22 MR. GARRARD: Yes, it does.

23 MR. CARUSO: Makes no difference
24 whatsoever.

25 MR. GARRARD: You're not entitled to

1 elicit opinions from him unless he is listed as an
2 expert to give opinions; and that's the problem I've
3 got, is he's not. He is here as a factual witness
4 in relation to his experience with Union Carbide.

5 MR. CARUSO: That's why you brought him
6 here, but that's not why he's here. I can ask him
7 anything I want.

8 MR. GARRARD: No. He's not here as an
9 expert.

10 MR. CARUSO: I'm not asking for an expert
11 opinion.

12 MR. GARRARD: I think that's an expert
13 opinion.

14 MR. CARUSO: It's not. If I was asking
15 for his expert opinion, I would ask him that.

16 I have a man here who is a historical
17 reference. He was working with this stuff at that
18 time, and I want to know if based on what he can
19 recall at that time is this statement made by this
20 fella at Union Carbide, whoever he may have been,
21 accurately reflecting what the state of the medical
22 knowledge was in 1967. He's a doctor; he should
23 know.

24 MR. GARRARD: Which is his opinion.

25 MR. GUYTON: I'll object on the same

1 basis, because it is asking his opinion of what the
2 opinion was; and that calls for an expert opinion
3 based upon his reference to all the knowledge as
4 stated at the time. It also asks him to speculate
5 about what someone else knew or what someone else
6 had written.

7 MR. GARRARD: I don't want to unduly
8 object; it's not my style. I'm going to let him
9 answer the question; but if you keep going on that,
10 then I'm going to stop him from answering questions
11 on that.

12 He is not here as an expert -- I'm not
13 trying to be difficult, but he is not here as a
14 medical expert to render opinions.

15 Go ahead.

16 Q. If there is any possible way you can
17 remember the question, can you answer it or would
18 you like to hear the question again?

19 THE WITNESS: I'd like to have it read.

20 Q. The question I'm trying to ask you is
21 this: If you and I had been back in 1967 together
22 and I would have handed you this piece of paper and
23 said, Dr. Lewinsohn, would you take a look at this
24 Paragraph 6.1, 1 -- which you can do now, by the
25 way, if you want to look at it again -- would you

1 take a look at that; and when they're talking about
2 crocidolite being implicated as a cause of
3 mesothelioma and chrysotile has not been exonerated,
4 would you agree with that as of 1967?

5 MR. GARRARD: Same objections without
6 restating them.

7 MR. CARUSO: Fine.

8 A. The reason I hesitate to give you an
9 answer is because you're trying to condense into one
10 question and to base on -- you know, on one person's
11 opinion a yes-or-no answer where there isn't a
12 yes-or-no answer possible.

13 In order to answer your question, I would
14 have to go back and review a great deal of the
15 literature at that moment in time to tell you
16 whether in 1967 there was -- this was a valid
17 statement to make. It's very difficult to answer
18 it.

19 However, you know, if I give it my best
20 shot, then what this seems to be saying is that in
21 1967 there was a belief in some sectors -- and it
22 doesn't say whose belief it was, whether it was a
23 majority opinion or a minority opinion or whether it
24 was a consensus of opinion -- that there was a
25 gradation or effect somehow or another between the

1 association of different types of asbestos fiber in
2 the production of mesothelioma and that at that
3 moment in time in 1967 this individual who wrote the
4 report believed that crocidolite was more liable to
5 produce mesothelioma, but that chrysotile had not
6 been eliminated as a cause, to use your word.

7 That's the best I can answer it.

8 Q. Now, you came aboard at Union Carbide in
9 1982?

10 A. Yes, that's correct.

11 Q. By corporate medical?

12 A. Yeah.

13 Q. And have you ever since coming aboard
14 with Union Carbide been involved with the asbestos
15 products between 1982 and the present in any way?

16 MR. GARRARD: What do you mean by
17 "involved"?

18 MR. CARUSO: Well, whatever, in his job
19 category with any of the asbestos product divisions
20 or anything like that.

21 A. Only in view of the fact that when I
22 joined Union Carbide it was known that I had spent a
23 lot of time working in the asbestos industry. From
24 time to time I would be asked for assistance, yes.

25 Q. And who would ask you for that

1 assistance?

2 A. Well, that varied. It might be
3 Dr. Fortney, who wanted to know how to respond to an
4 inquiry; or it might have been somebody in the
5 management of the division that wanted to talk to me
6 about asbestos or chrysotile asbestos or matters of
7 that kind.

8 Q. Were you ever called upon for assistance
9 by a man named Harrison Rhodes?

10 A. I'd more likely call on him for
11 assistance; but I did know Harry Rhodes, yes.

12 Q. During the course of your tenure with
13 Union Carbide between 1982 and the present, were you
14 ever involved in any discussions with a man from
15 Montello Corporation, Ken Campbell?

16 A. Don't know him.

17 Q. Don't know him?

18 A. (Witness shakes head negatively.)

19 Q. Let me show you this Materials Safety
20 Data Sheet from the Calidria Corporation that's
21 dated 12/13/84. Let me ask you first of all: What
22 is the Calidria Corporation?

23 A. That was the name of the part of the
24 Metals Division that mined and marketed the Coalinga
25 fiber.

1 Q. It's a part of Union Carbide?

2 A. It was a part of Union Carbide.

3 Q. Now, could you tell us, if you know, what
4 is the function of a Materials Safety Data Sheet?

5 A. The Materials Safety Data Sheet basically
6 is to provide information to people handling or
7 using a product relating to its physical properties,
8 its health hazards, first aid treatment in the event
9 of acute exposures, and any other relevant matters
10 in order to insure the safety of the product.

11 Q. In the Union Carbide operation, who would
12 receive from Union Carbide copies of the Material
13 Safety Data Sheet, if you know?

14 MR. GARRARD: Doctor, if you know.

15 A. I don't believe I'm qualified to answer
16 that.

17 Q. Now, this publication, which is of 1984,
18 has two parts I'd like to ask you about.

19 MR. GARRARD: Which section are you
20 referring to?

21 MR. CARUSO: Chronic Effects of
22 Overexposure.

23 Q. It says: "Overexposure to chrysotile
24 asbestos has caused damage to lungs (Asbestosis,
25 lung cancer, and mesothelioma of the pleura and the

1 peritoneum.)"

2 Mr. Rhodes testified in his deposition
3 that this entry that was placed into this Materials
4 Safety Data Sheet was made after discussions with
5 you.

6 Let me ask you first of all, is Mr.
7 Rhodes' recollection correct about that?

8 A. I know I was involved in the drafting of
9 this particular section, yes.

10 Q. Who else was involved in it besides
11 yourself?

12 A. That I don't remember; but -- I think at
13 that time this was -- may well have been partly
14 drafted by somebody in our Toxicology Information
15 Services Group under Mr. Marvin Huffman and that it
16 could have been referred to me from them; or it
17 could have been referred to me from somebody at the
18 division. But I know that the final form of this is
19 probably designed by Mr. Marvin Huffman's group.

20 Q. Marvin Huffman?

21 A. Yeah.

22 Q. And you say "Mr. Marvin Huffman's group."
23 Who was Mr. Huffman?

24 A. Well, he works in the -- in those days I
25 think it was still called Corporate Applied

1 Toxicology; he worked in that area. It doesn't
2 really matter how he fits into it, but he -- his
3 group, which now is down to himself and someone
4 else, they basically assist the divisions in
5 formatting the Material Safety Data Sheet and do a
6 lot of the literature reviews and that sort of
7 thing.

8 Q. Was it you who suggested that
9 mesothelioma be placed in that paragraph dealing
10 with chronic effects of overexposure?

11 A. I don't know whether, you know, I would
12 put it -- it was I who suggested it. I can only say
13 that this is a combined effort; but probably my
14 input was significant.

15 Q. And do you agree with it as it's written,
16 that overexposure to chrysotile asbestos has caused
17 damage to lungs, (Asbestosis, lung cancer, and
18 mesothelioma of the pleura and the peritoneum)?

19 A. I think that in 1984 when this was
20 written -- bearing in mind this is sort of a generic
21 type of statement talking about chrysotile asbestos
22 and not distinguishing in any way between the types
23 of chrysotile, bearing in mind the state of
24 knowledge at the time when this was drafted -- there
25 was by that time some evidence basically from the

1 Canadian chrysotile mines and mills -- and I think
2 possibly from elsewhere; I'm not sure, from
3 Cypress -- of cases of mesothelioma that had been
4 described in persons who had, as far as could be
5 ascertained from, historically worked with
6 chrysotile asbestos.

7 So in that context, I think that at that
8 moment in time it was probably a reasonable
9 statement to make.

10 Q. Would it have been reasonable --
11 MR. GARRARD: Did you finish your
12 answer?

13 A. I think that if this were to be rewritten
14 now, evidence which has come to light within the
15 last four years probably might make one want to
16 modify that statement; because it would appear
17 from -- as I understand the few articles that I've
18 kept up with -- it would appear now that the
19 likelihood of pure chrysotile inducing a
20 mesothelioma is very small, if any, and that most
21 chrysotile which has been incriminated in the
22 Canadian people and in Cypress is contaminated with
23 an amphibole fiber known as tremolite; and so it
24 would probably be written differently today.

25 In other words, it would be -- it's

1 unlikely that chrysotile asbestos would cause
2 mesothelioma of the pleura in the light of this
3 evidence.

4 Q. You would just take mesothelioma out of
5 this statement today if you were writing this?

6 A. I don't think I would take it out; I
7 think you'd have to give some descriptive
8 explanation as to why this particular product would
9 be unlikely to cause it.

10 Q. But you wouldn't take it out yet?

11 A. I wouldn't take it out; but I'd have to
12 qualify it, I'd have to give a qualifying statement.

13 Q. Would you take out the part about
14 asbestosis where it says, Overexposure to chrysotile
15 asbestos --

16 A. No.

17 Q. Would you take out the part of lung
18 cancers?

19 A. No.

20 When I'm talking about chrysotile --

21 Q. Right; the chrysotile this is directed
22 to, this Coalinga chrysotile.

23 A. No, I'm not saying that. I think this
24 particular statement is a generic statement that was
25 written in -- because there was no way I believe of

1 writing a statement like this specifically for
2 Coalinga; so the statement was written as is not
3 uncommon in Material Safety Data Sheets to cover
4 chrysotile asbestos.

5 This was to serve the purpose of the
6 Material Safety Data Sheet, which is as a health
7 warning. And if subsequently it were to be shown
8 that Coalinga fiber had the same potential
9 properties as any other form of chrysotile asbestos,
10 then this would be an acceptable statement.

11 Q. Well, are you saying, then, that Coalinga
12 chrysotile --

13 A. No, I'm not saying anything about --

14 Q. -- is different than any other
15 chrysotile?

16 A. Yes, it is.

17 Q. Okay.

18 A. That's not what I'm saying at the
19 moment. What I'm saying at the moment is in
20 preparing a Material Safety Data Sheet where the
21 evidence is not always complete for the particular
22 chemical or substance that you're writing the
23 Material Safety Sheet, if there is other evidence in
24 the literature for products of a similar kind, then
25 it's reasonable to adapt that in a health hazard

1 statement, which is really what has taken place
2 here.

3 Q. So if you're going to make a mistake --

4 A. But there are certain differences between
5 Coalinga fiber and other forms of chrysotile
6 asbestos.

7 Q. What are the differences?

8 A. It's a very unique fiber, as I understand
9 it and as I understood it when I was involved.
10 It's -- it really doesn't require any mining; it's
11 almost a surface deposit. And it's -- again, as I
12 understand it and from what I've been told, a form
13 of chrysotile fiber which is purer in the sense that
14 it isn't contaminated by amphiboles, and it has a
15 very characteristic fiber size and shape. It's
16 unusual in that it's a short fiber for a chrysotile
17 and it's a thin fiber. I believe that most of the
18 fibers are less than 5 microns in length; and I
19 don't know what the diameter is but the diameter is
20 certainly very small.

21 Q. You're not saying all of the fibers are
22 less than 5 microns?

23 A. I'm saying the majority.

24 So that has certain implications with
25 regard to the carcinogenic properties of this fiber.

1 Q. Well, in 1984 when you all wrote this
2 Material Safety Data Sheet, you were trying, I take
3 it, to give as accurate a description as possible of
4 the product that you were selling; were you not?

5 A. In that the product that was being sold
6 was a form of chrysotile asbestos, and given the
7 deficiency on specific health information related to
8 that product, a statement was devised which appeared
9 to be an appropriate health warning.

10 Q. Now, have you developed any information
11 between 1984, the time this was written, and today
12 that shows that the Coalinga chrysotile does not
13 cause asbestosis?

14 A. Huh-uh. I've had no involvement -- I
15 haven't developed personally any information.

16 Q. What about the company?

17 A. As far as I'm aware, that particular
18 company no longer belongs to Union Carbide; so I
19 don't know what they've done.

20 Q. Have you seen any studies that shows that
21 Coalinga chrysotile is not associated with lung
22 cancer?

23 A. I haven't seen any studies that say it
24 is.

25 Q. Have you seen any that says it isn't?

1 A. I haven't seen either.

2 Q. So the statements that you made here in
3 this 1984 Material Safety Data Sheet, as far as we
4 know through today, are accurate?

5 MR. GARRARD: Hold it. I object to the
6 form of your question in that he has already
7 indicated to you that as to mesothelioma he would
8 change that today; and I think that's a misstatement
9 of what he said. I'm sure you didn't mean to do
10 that, but I object to the form because that's not
11 what he said.

12 MR. CARUSO: You're right.

13 Q. With regard to the asbestosis and the
14 lung cancer, that statement in this Material Data
15 Sheet of 1984, if you were writing it today, you'd
16 write it the same?

17 A. I don't know whether I would; because I
18 know a little bit more about the fiber now than I
19 did then. I also know from my own personal
20 observation of the employees at the King City mine
21 that no evidence has been found to date of -- at
22 least as of the time when I last was involved -- no
23 evidence had been found of asbestosis among the
24 miners. And as far as I'm aware, no excess cancers
25 of the lung had been found, either. So it may well

1 be that with developing knowledge over the last five
2 years since 1984 it might even be possible to modify
3 the statements with regard to lung cancer and
4 asbestosis; not that I could say that asbestosis or
5 lung cancer will not occur, because I haven't got
6 sufficient evidence for that; but that -- based upon
7 what I do know, it's unlikely that they would occur.

8 Q. Well, you wouldn't be willing to make a
9 statement like that just based on an informal
10 statement -- survey of workers that worked at that
11 mine; would you?

12 A. No, no --

13 MR. GARRARD: Let him finish.

14 MR. CARUSO: I'm letting him finish; just
15 relax.

16 A. I would not make a statement based purely
17 on that one issue alone. I think that the statement
18 that the information goes further than that is
19 experimental evidence available -- as well as I'm
20 not sure that I was aware of in 1984 but I now am
21 aware of in which this fiber has been shown not to
22 produce significant -- a significant incidence of
23 tumors in the animals.

24 Q. Well, there is also medical evidence that
25 shows that chrysotile fibers does produce tumors in

1 animals; isn't it?

2 A. Yes; but I am talking of the Coalinga
3 fiber as opposed to chrysotile asbestos in general.
4 It is a unique fiber, it's different, and it has
5 been studied on its own.

6 Q. In 1966 you all sent some of this stuff
7 over to Mellon for survey. Have you ever seen this
8 report before, the Mellon Institute?

9 A. I don't remember whether I was shown this
10 or not.

11 Q. Take a look at that.

12 MR. GARRARD: Take your time, Doctor.

13 (A recess was taken.)

14 A. May I just ask you if these codes refer
15 to -- CMS 100 is what?

16 Q. I don't know. It's not my report.

17 MR. GARRARD: I can't answer that
18 question, Doctor.

19 (A discussion ensued off the record.)

20 Q. You looked at this report. Were you able
21 to identify which fibers were fibers from the
22 Coalinga mine?

23 A. No.

24 Q. You can't tell from looking at this?

25 A. No; I don't know where these fibers come

1 from.

2 Q. Mr. Rhodes testified in his deposition
3 that the Coalinga fibers -- a sample of the Coalinga
4 chrysotile was sent to the Mellon Institute and they
5 acted just like every other chrysotile fiber. And I
6 asked what does that mean, and he said they produced
7 tumors.

8 You don't know about that?

9 A. No.

10 Q. Let me ask you about this thing here.
11 What is this "Warning: Cancer Hazard" over here in
12 precautionary statements? What is that for?

13 MR. GARRARD: If you know, Doctor.

14 Q. If you know.

15 A. You know, I had no part in, I don't
16 think, in writing that, and I don't know how these
17 warnings were developed. Must have been some
18 convention that they use when they write these
19 Material Safety Data Sheets as to whether they
20 have -- "Warning: Cancer Hazard" or "danger" or
21 different terms that are used in these things.

22 Q. What is Union Carbide saying? Is this
23 what they want to be put on the bags that the men
24 would actually receive?

25 MR. GARRARD: Doctor, if you know an

1 answer, give him an answer; but do not speculate.

2 A. I don't know the answer. This is a
3 Material Safety Data Sheet. Labels are something
4 that are dealt with by a specialized group of people
5 who design and wordsmith the labels. I don't have
6 anything to do with that.

7 Q. So this wording here under "Special
8 Precautions" would not necessarily appear on the
9 bags of the product that the men were receiving?

10 A. I don't -- I just don't know.

11 Q. You don't know?

12 A. No.

13 Q. Are you still at this time in your life a
14 subscriber to the Lagg Aphroism?

15 A. Uh-huh.

16 Q. Would you tell the ladies and gentlemen
17 of the jury what Lagg Aphroism is?

18 A. Which one? There are four of them.

19 Q. I'll read you one which I like.

20 "Every worker should know something of
21 the materials that he works with and to which he is
22 exposed and the hazards of such materials and not
23 find out for himself, sometimes at the cost of his
24 life."

25 A. Yes, I agree with that.

1 Q. Is chrysotile asbestos a carcinogen?

2 A. Yes, I believe it's classified as a
3 carcinogen.

4 Q. When did it first get that
5 classification? Do you know?

6 A. That I don't know; because it would -- it
7 depends on who classified it. And I can't tell
8 you -- it's classified as a carcinogen.

9 Q. You said "it depends on who classified
10 it." How many different entities --

11 A. International Agency for Research and
12 Cancer, and the EPA, and -- you know, everybody has
13 their own ideas about classification. I'm not quite
14 sure when it would uniformly be classified,
15 especially in the United States of America.

16 Q. When you got to Union Carbide in 1982,
17 had it been classified as a carcinogen, if you know?

18 A. I don't know. If you're asking me
19 officially, in any official way, I don't know.

20 Q. When you got to Union Carbide in 1982 and
21 took the position as medical director -- excuse me,
22 assistant medical director -- is that right in 1982?

23 A. Assistant corporate medical director.

24 (A discussion ensued off the record.)

25 Q. When you took that job as the assistant

1 corporate medical director in 1982, did you have an
2 opinion at that time as to whether or not chrysotile
3 was a carcinogen?

4 A. Yes.

5 Q. What was your opinion?

6 A. Chrysotile is a carcinogen.

7 Q. Now, we talked just a second ago about
8 the Lagg Aphroism, which I think is A-p-h-r-o-i-s-m;
9 and in comparing the material which is contained in
10 the Safety Material Data Sheet, the information and
11 a warning label, which has been represented to us to
12 have been on the Coalinga product handled by the
13 Plaintiff in this case, Mr. Soignet, can you tell
14 us, Doctor, whether or not this labeling in light of
15 what's on your Material Safety Data Sheet and the
16 information contained in the Material Safety Data
17 Sheet fulfills Lagg's Aphroism?

18 MR. GARRARD: I'm going to object to the
19 question. He is not here as an expert testifying
20 about warning labels nor their contents, and I'm
21 going to instruct him not to answer the question.

22 MR. CARUSO: That's an instruction not to
23 answer?

24 Q. Doctor, if you have a man who is handling
25 a carcinogen and you do not warn that person

1 directly that the product he is handling is a
2 potential carcinogen, in your view, Doctor, has the
3 corporation fulfilled its duty to warn that
4 individual of the risks associated with the use of
5 that product?

6 MR. GARRARD: I'm going to object to that
7 question in that you're again asking him for
8 opinions, number one, in terms of whether someone
9 has fulfilled a duty; and number two, you are
10 blankly asking him his opinion concerning the
11 contents of a warning. And I'm going direct him not
12 to answer the question.

13 MR. CARUSO: Please note that we're
14 reserving all objections to his objections for
15 discussion with the Judge. I'm reserving my right
16 to retake this deposition if I have to retake it
17 during the course of this trial.

18 Q. Were there ever any discussions that you
19 know of that took place at Union Carbide to identify
20 the Coalinga asbestos product as a carcinogen on its
21 labels?

22 MR. GARRARD: Could you read that back?
23 I'm --

24 Q. Let me ask you again.
25 From the time you arrived at Union

1 Carbide until the time the mine was sold and Union
2 Carbide got out of the business, were there ever any
3 discussions in which you participated where it was
4 discussed that a label should be put on the bags
5 containing the Coalinga product identifying it as a
6 possible carcinogen?

7 A. I don't recollect participating in any
8 such discussions personally.

9 Q. Do you know of any such discussions
10 having taken place in which you did not participate
11 personally?

12 A. That, again, I can't tell you; I don't
13 know.

14 Q. Mr. Rhodes told us that he thought there
15 were discussions around 1970 about that question.

16 Did you ever --

17 A. I wasn't there then.

18 Q. I know that; but did you ever see any
19 memoranda, documents, or anything dealing with the
20 question of whether or not to identify this product
21 as a possible carcinogen?

22 A. No.

23 Q. Does Union Carbide today sell any
24 products that have been classified as a carcinogen?

25 A. Probably.

1 Q. Do you know what they are?

2 A. (Witness shakes head negatively.)

3 Well, you said "sell products"; that I
4 don't know, okay? We have probably in our
5 manufacturing facilities products that might be used
6 in formulations, et cetera, that are classified as
7 carcinogens.

8 For example, I believe one chloride is
9 classified as a carcinogen, and there are a number
10 that are suspected as being carcinogenic.

11 Q. With regard to the ones that are
12 suspected as being carcinogenic, are the people who
13 work with those substances warned by Union Carbide
14 of the potential carcinogenicity?

15 A. I believe everyone who works with these
16 substances knows of the hazards associated with
17 them.

18 Q. Where do they get that knowledge from?

19 A. They get it through their training,
20 through their job safety data sheets, and through
21 the free availability of the Material Safety Data
22 Sheets to all employees.

23 Q. So they actually are getting some of it
24 from the manufacturers of the substance?

25 A. If it happens that the carcinogen is one

1 you can buy from someone else, then the vendor's
2 Material Safety Data Sheet would be part of the
3 information. If the substance is one of our own
4 product, then it would be our Material Safety Data
5 Sheet. But there is also active employee training
6 continuously going on.

7 Q. Do you all label it, put a label on
8 the --

9 A. That I don't know. There is a labeling
10 system, you know, the diamond with different things
11 in it; that's basically I think what I've seen.

12 Q. Do you know or know of a man named C. U.
13 Darnehl?

14 A. Dr. Darnehl?

15 Q. Yes.

16 A. I have met him on one occasion.

17 Q. Do you know what his relationship to
18 Union Carbide was or is?

19 A. He had long since retired by the time I
20 got there, and I believe that he had some -- he had
21 an appointment as a medical director; I don't know
22 exactly what his title was.

23 Q. Let me show you a letter of June 7th,
24 1967, which appears to have been penned by Dr.
25 Darnehl to a Mr. Hall, T. J. Hall, Union Carbide,

1 Europa, and ask you if you've ever seen this letter
2 before?

3 A. No, I haven't seen this letter before.
4 It's barely ledgible.

5 Q. I know.
6 Do you know who Mr. Hall is?

7 A. No.

8 Q. While you were on the Pneumoconiosis
9 Panel in England, did you have an opportunity to
10 note an increase in lung cancer associated with
11 people suffering from asbestosis?

12 A. Did I have an opportunity? If you ask it
13 that way, I have to say no; because I wasn't doing
14 any studies.

15 Q. What about the panel itself? Did the
16 panel perform a study?

17 A. Well, the panels published their findings
18 annually -- they were usually about two years behind
19 -- in which it was shown that the incidence of
20 asbestosis was increasing, or diagnosed cases of
21 asbestosis by the panels in certain regions was
22 increasing, and also that the -- now, I don't know
23 whether they actually showed the instance of lung
24 cancer to be increasing as well; I can't remember
25 that. But I know that there was this report that

1 came out every year in which the latest statistics
2 were given. I know they were concentrated on
3 asbestosis.

4 The reason was that asbestosis was a
5 prescribed disease; in other words, you could get
6 compensated for asbestosis. Lung cancer in an
7 asbestos worker was not a prescribed disease,
8 because it was a requirement for compensation that
9 asbestosis also be present. So consequently, they
10 didn't tally up the lung cancer cases; they tallied
11 up the asbestos cases.

12 Q. Were you familiar with a report submitted
13 by Dr. Buchannon at the 1964 Academy of Sciences
14 Conference in New York which indicated that in the
15 experience of the cases diagnosed by the
16 pneumoconiosis medical panels in Brittain as
17 suffering from asbestosis, 50 percent of those died
18 of lung cancer as well?

19 A. Right; that was the prerequisite of
20 asbestos and lung cancer. That was a paper that was
21 presented by Dr. Buchannon. I'm familiar with
22 that. The one problem with that paper is that A, it
23 was not a controlled studied, there were no
24 controls; and B, smoking histories were
25 unavailable.

1 As you know, there is a synergistic
2 effect between asbestos exposure and cigarette
3 smokers, and asbestos workers who smoke cigarettes
4 have a greater chance of developing lung cancer than
5 those who don't.

6 Q. Just to make sure we're on the same page
7 here, you testified that it was your belief that
8 there was possibly a difference between the Coalinga
9 chrysotile and all other chrysotile.

10 I want to make sure I'm getting this
11 right. Is that correct?

12 MR. GARRARD: I've got to object to the
13 form of your question. He didn't say there possibly
14 was; he said there was a difference.

15 A. In the physical properties.

16 Q. Insofar as the disease-causing aspects of
17 these fibers, does chrysotile asbestos, chrysotile,
18 in your view, cause asbestosis?

19 A. Chrysotile asbestos as a generic term?

20 Q. Right.

21 A. Yes.

22 Q. Does the Coalinga chrysotile cause
23 asbestosis?

24 A. All I can say is that -- and I'm only
25 going on my personal experience -- is that I haven't

1 seen it.

2 Q. Does chrysotile, generic chrysotile --
3 let's change again -- is chrysotile associated with
4 lung cancer?

5 A. Yes, it is.

6 Q. Is Coalinga associated with lung cancer?

7 A. Again, I must answer the same way. My
8 personal experience, I haven't seen it.

9 Q. Now, how long did Union Carbide have that
10 mine? Do you know?

11 A. I don't know for sure; but I believe it
12 was started up sometime in the sixties. I just
13 don't know for sure.

14 Q. So it would be fair to say that as of
15 1985 when Union Carbide got rid of the mine that
16 since that's only a 20-year period that there might
17 be cases of asbestosis and lung cancer that would
18 come in years to come based on the latency of those
19 diseases; isn't that true?

20 A. Well, whether it's true or not I don't
21 know; but there is a possibility that followup of
22 that population over a long period of time, if there
23 were going to be an effect might reveal it because
24 of the latency.

25 Q. Now, with regard to the issue of

1 chrysotile asbestos and mesothelioma, my question to
2 you is: Is there an association at this point in
3 time of any kind between chrysotile and
4 mesothelioma?

5 A. The number of cases of mesothelioma in
6 the literature attributed to exposure to chrysotile
7 asbestos is extremely small; and in a recent --
8 well, let's put it this way: These cases have
9 recently been reviewed by a number of people, and it
10 would appear that the consensus of opinion is that
11 the production of mesothelioma by chrysotile is
12 consistent with the -- is consistent with the
13 contamination of chrysotile by an amphibole fiber
14 known as tremolite.

15 Furthermore, the cases that have been
16 associated and reviewed in the literature following
17 alleged chrysotile exposure only in most instances
18 have been shown to have been probably heavily
19 exposed as indicated by the lung burden of
20 chrysotile fibers; and particularly where -- in the
21 later reports that I've seen, it's possible to look
22 at both tremolite and chrysotile and look at the
23 ratio of the tremolite to the chrysotile in the
24 lung, and the chrysotile disappears from the lung;
25 it doesn't stay in the lung very readily. But the

1 tremolite is there, and this ratio of tremolite to
2 chrysotile is a good indicator of the extent of
3 exposure. If there is a lot of tremolite, there has
4 been a heavy exposure to chrysotile.

5 But I think to answer your question, the
6 census of opinion today is that any mesothelioma
7 allegedly due to exposure to chrysotile have
8 probably more likely resulted from the contamination
9 of the chrysotile with tremolite.

10 Q. So does that mean that in your own mind
11 you have eliminated pure chrysotile as a cause of
12 mesothelioma?

13 A. No.

14 Q. Pure uncontaminated chrysotile?

15 A. I haven't eliminated; because I think
16 that there is one factor that still needs
17 consideration in that a population of -- has not
18 been studied exposed to pure chrysotile, if there is
19 a pure chrysotile that is suitable for study.

20 Q. Union Carbide contends that this material
21 is pure uncontaminated chrysotile. Mr. Soignet was
22 one of the folks -- type of person who worked in the
23 oil fields in southeast Louisiana and onshore
24 warehousing who was in contact with this product.

25 How many people would it take to make up

1 a cohort of people similarly situated to Mr. Soignet
2 to begin a study on this question, if you know?

3 MR. GARRARD: Can you rephrase your
4 question? I'm not sure when you say "to begin a
5 study" that it's an answerable question. And I'm
6 not trying to tell you how to ask your question; you
7 may mean to do a study. I mean, you can begin a
8 study with anything --

9 MR. CARUSO: You're absolutely right;
10 you're much smarter than I am. To do a study,
11 right.

12 Q. If I wanted to do a study, how many guys
13 like Blackie Soignet would I have to go get to make
14 up the cohort?

15 A. Well, a study on asbestos workers were
16 about 300; but at that time he wasn't limiting
17 himself to looking at any particular effect; he was
18 looking at asbestos workers because it had been
19 brought to his attention that they were suffering
20 from asbestosis.

21 I think it depends on what you want to
22 do. I think this is a question for an
23 epidemiologist. And the number of -- the fact that
24 mesothelioma is a very rare tumor still and that its
25 incidence in the general population is only about

1 one in a million, its natural incidence. In order
2 to do a study which has any power of reaching
3 statistical significance would require quite a large
4 population. But that's my humble, you know,
5 opinion.

6 Q. So we would be looking for people in the
7 thousands?

8 A. I don't know.

9 Q. You don't know; but it would take a lot
10 of guys?

11 A. I think that would also depend on the
12 potency of the substance that you're looking at. If
13 you had a material that was a very potent
14 carcinogen, you would need fewer people, because you
15 would have more of them affected.

16 Q. We're talking about studying chrysotile,
17 this product, okay?

18 A. I think as far as this product is
19 concerned, you'd probably look forever and not find
20 any.

21 Q. Well, I've already found one.

22 MR. GARRARD: Objection.

23 A. That's your opinion.

24 MR. CARUSO: Thank you. That's all the
25 questions I have.

1 DIRECT EXAMINATION

2 BY MR. GUYTON:

3 Q. Doctor, when you said that asbestos has
4 been classified by others generally speaking as a
5 carcinogen, you do not mean by that that --

6 MR. GARRARD: Chrysotile, you mean?

7 MR. GUYTON: Let me restate that
8 question.

9 Q. Did you state previously that chrysotile
10 had been classified as a carcinogen by someone?

11 A. I believe that's correct, yes.

12 Q. You didn't mean by that that chrysotile
13 was a carcinogen in every particular type of cancer
14 or circumstances; did you?

15 MR. CARUSO: I object to the leading form
16 of the question.

17 A. I'm not sure what you mean "in every type
18 of --"

19 Q. Well, chrysotile, for instance, doesn't
20 cause skin cancer; does it?

21 A. Oh, I see what you mean.

22 Well, no, not in general. What I was
23 referring to was lung cancer.

24 Q. Specifically it has been classified as a
25 carcinogen as lung cancer?

1 A. Well, it's classified a carcinogen based
2 upon the fact that it has been demonstrated to cause
3 lung cancer in humans.

4 MR. GUYTON: Pass the witness.

5 RE CROSS-EXAMINATION

6 BY MR. CARUSO:

7 Q. Are you a stockholder in Union Carbide?

8 A. No.

9 Q. Have you seen this before, a copy of the
10 1987 10K from Union Carbide, a copy of the 1987
11 stockholder's report? Have you ever seen those
12 before?

13 A. I may have seen some of them; but I don't
14 get them.

15 Q. You don't get those, though?

16 A. (Witness shakes head negatively.)

17 MR. CARUSO: I have nothing else. Thank
18 you.

19 Having concluded this deposition, at this
20 time I reserve the right to reconvene it after I've
21 had an opportunity to receive a transcript and argue
22 the objections that were made by Mr. Garrard,
23 particularly with regard to his particular

24

25 ///

1 instructions to the witness not to answer certain
2 questions.

3 (Deposition concluded at 3:55 p.m.)
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C E R T I F I C A T E

STATE OF GEORGIA:

COUNTY OF FULTON:

I hereby certify that the foregoing transcript was taken down, as stated in the caption, and the questions and answers thereto were reduced to typewriting under my direction; that the foregoing pages 1 through 63 represent a true, complete, and correct transcript of the evidence given upon said hearing, and I further certify that I am not of kin or counsel to the parties in the case; am not in the regular employ of counsel for any of said parties; nor am I in anywise interested in the result of said case.

This, the 10th day of March 1989.


JANET K. WILSON, CCR-B-1108
My commission expires on the
29th day of September, 1990.

1 DEPOSITION OF DR. HILTON C. LEWINSOHN/JAN
 2 I do hereby certify that I have read all
 3 questions propounded to me and all answers
 4 given by me on March 9, 1989, taken before
 5 Janet K. Wilson, and that:

- 6 _____ 1) There are no changes noted.
 7 _____ 2) The following changes are noted:

8 Pursuant to Rule 30 (7)(e) of the Federal
 9 Rules of Civil Procedure and/or Georgia Code
 10 Annotated 81A-130 (B)(6)(e), both of which read in
 11 part: Any changes in form or substance which you
 12 desire to make shall be entered upon the
 13 deposition...with a statement of the reasons
 14 given...for making them. Accordingly, to assist you
 15 in effecting corrections, please use the form below:

16 Page No.____ Line No.____ should read:

17 _____

18 And the reason for the change is: _____

19 _____

20 Page No.____ Line No.____ should read:

21 _____

22 And the reason for the change is: _____

23 _____

24 Page No.____ Line No.____ should read:

25 _____

Page No.____ Line No.____ should read:

And the reason for the change is: _____

Page No.____ Line No.____ should read:

1 DEPOSITION OF DR. HILTON C. LEWINSON/JAN
2 And the reason for the change is: _____

3 Page No. ____ Line No. ____ should read:
4 _____

5 And the reason for the change is: _____

6 Page No. ____ Line No. ____ should read:
7 _____

8 And the reason for the change is: _____

9 Page No. ____ Line No. ____ should read:
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1 DEPOSITION OF DR. HILTON C. LEWINSOHN/JAN
2 And the reason for the change is: _____

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1 DEPOSITION OF DR. HILTON C. LEWINSOHN/JAN
2 And the reason for the change is: _____

3 Page No. ____ Line No. ____ should read:
4 _____
5 _____

6 And the reason for the change is: _____
7 _____

8 If supplemental or additional pages are necessary,
9 please furnish same in typewriting annexed to this
10 deposition.

11 _____
12 DR. HILTON C. LEWINSOHN

13 Sworn to and subscribed before me,
14 this the ____ day of _____, 1989.

15 _____
16 Notary Public.

17 My commission expires: _____
18 _____
19 _____
20 _____
21 _____
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23 _____
24 _____
25 _____

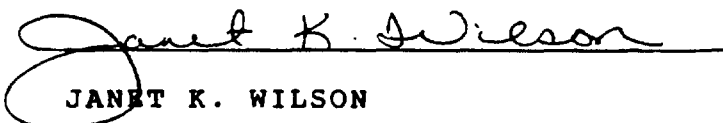
AMENDED CERTIFICATE

STATE OF GEORGIA:

COUNTY OF FULTON:

I hereby certify that in addition to the certification made on Page 64 of the transcript, this deposition is being filed pending the witness' right to review said deposition within 30 days, which time has not elapsed.

This, the 10th day of March 1989.


JANET K. WILSON

Certified Court Reporter and
Notary Public.

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

In Re:

ASBESTOS PRODUCTS LIABILITY
LITIGATION (No. VI)

Civil
Action No.
MDL 875

UNITED STATES DISTRICT COURT
FIFTH DIVISION
DISTRICT OF MINNESOTA

CONWED CORPORATION,

Plaintiff,

Case No.
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),

Third-Party Plaintiffs,

-against-

OWENS-CORNING FIBERGLAS CORPORATION,
WALKER JAMAR COMPANY, A.W. KUETTEL, SONS,
INC., API, INC. and MacARTHUR COMPANY,

Third-Party Defendants.

February 15, 1994
HILTON C. LEWINSON



Doyle Reporting, Inc.

CERTIFIED STENOTYPE REPORTERS

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Walter Shapiro, CSI
Charles Shapiro, CS

369 Lexington Avenue • New York, N.Y. 10017 • Tel. (212) 867-8220 • Fax (212) 286-1851

UCAREF00011502

February 15, 1994
9:50 a.m.

Deposition of Center for Occupational and
Environmental Health at Exeter Hospitals, Inc., by
HILTON C. LEWINSOHN, taken by Plaintiff, pursuant
to notice at the offices of Kelley, Drye & Warren,
Esqs., 101 Park Avenue, New York, New York, before
Marianne D'Amico, a Shorthand Reporter and Notary
Public within and for the State of New York.

* * *

A p p e a r a n c e s :

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-and-

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of Counsel

A p p e a r a n c e s : (Cont'd)

Also Present:

VIRGINIA M. RUSZCZYK, Legal Assistant
Kelley Drye & Warren, Esqs.

* * *

IT IS HEREBY STIPULATED AND AGREED by and among the attorneys for the respective parties hereto, that all rights provided by the C.P.L.R., including the right to object to any question except as to the form, or to move to strike any testimony at this examination, are reserved; in addition, the failure to object to any question or to move to strike testimony at this examination shall not be a bar or waiver to make such motion at, and is reserved for, the trial of this action.

IT IS FURTHER STIPULATED AND AGREED that the within examination may be sworn to by the witness being examined before a Notary Public other than the Notary Public before whom this examination was begun, but the failure to do so or to return the original of this examination to counsel shall not be deemed a waiver of the rights provided by Rules 3116 and 3117 of the C.P.L.R., and shall be controlled thereby.

IT IS FURTHER STIPULATED AND AGREED that the filing and sealing of the original of this examination are waived.

* * *

1

6

2 H I L T O N C. L E W I N S O H N,

3 having been first duly sworn by a Notary
4 Public of the State of New York (Marianne
5 D'Amico), was examined and testified as
6 follows:

7 EXAMINATION BY

8 MR. BROWNSON:

9 Q. Dr. Lewinsohn, my name is Bob
10 Brownson, as I told you, and I represent a company
11 called Conwed Corporation, which is the plaintiff
12 in the lawsuit against Union Carbide out in
13 Minnesota, which is now out in Philadelphia, if
14 you can understand that progression.

15 We are here today to take your
16 deposition in connection with that case, and as
17 I'm sure Trevor has told you, or as you probably
18 already know, at the deposition, you've got to
19 answer out loud and audibly. You can't shake your
20 head or mumble or say "uh-huh," because then we
21 have a hard time transcribing it.

22 And, secondly, if you don't
23 understand a question or the question is not clear
24 to you, make sure you tell me that before you
25 answer it, so that we get a record of answers and

1

2 and responses to questions that you understood.

3

Is that fine?

4

A. Yes.

5

Q. And finally, try not to talk when I
6 talk, and I'll try not to talk when you talk, so
7 she just has one person talking at a time.

8

A. Okay.

9

Q. Dr. Lewinsohn, first of all, are you
10 presently employed?

11

A. Yes, I am.

12

Q. Where are you employed?

13

A. The Center for Occupational and
14 Environmental Health abbreviated, COEH, at Exeter
15 Hospital.

16

The address is P.O. Box 1050 and the
17 street address is 108 High Street, in Exeter, New
18 Hampshire.

19

MR. WILL: Off the record.

20

(Discussion off the record)

21

MR. WILL: Back on the record.

22

Q. Do you have a curriculum vitae or
23 resume that we can have?

24

MR. WILL: I'm having it

25

photocopied.

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Lewinsohn

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MR. BROWNSON: So maybe we can
dispense of it.

MR. GERSON: It will be here in two
minutes.

Q. Your full name is Dr. Hilton
Lewinsohn?

A. Hilton, middle initial is C, for
Cecil, Lewinsohn.

Q. How long have you been at the Center
for Occupational Environmental Health at Exeter,
New Hampshire?

A. Since November 1992.

Q. What sort of institution is that? Is
that a teaching hospital or --

A. No, the hospital is a community
hospital, about 100 beds.

And the Center for Occupational
Environment Health is a department of the
hospital.

Q. And how is it that a hundred-bed
hospital in Exeter, New Hampshire has a Center for
Occupational Health?

Is there some plant in the area? How
did that come about?

1

2

3

A. The center has been there for about eight years, I believe.

4

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It started off actually with a nursing program that was set up by a very energetic occupational health nurse in the area, to provide nursing services to local employers in the industry. And it was very successful. They grew.

They then got a medical director, and enlarged eventually to get an industrial hygiene services as well, employer assistance program, and it developed into a comprehensive hospital-based occupational health program.

It isn't an industrial area per se, but there are some medium sized companies in the area and some subsidiaries of large companies.

And we provide on-site medical direction to some of those companies. We provide on-site nursing.

We have a clinic where we would see injured employees to preplacement, physical exams, urinal examination for drug screening, that kind of thing.

Q. Does the Center for Occupational and

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Lewinsohn

10

2

Environmental Health do research as well?

3

A. Oh, no.

4

Q. Or is it treating of patients?

5

A. It's hospital based. It has

6

basically a clinical function.

7

Q. Are you currently doing any research

8

of your own, or have you since you've joined that

9

center?

10

A. No.

11

Q. At the present time, or since 1992,

12

let me put it that way, since 1992, have you been

13

following any group of patients, or have you been

14

continuing any research of any kind that you had

15

done in the past?

16

A. No.

17

Q. And as I understand it, you left

18

Union Carbide in July of 1992, is that correct?

19

A. That is correct.

20

Q. Did you retire at that point?

21

A. It was a retirement, you know,

3

22

retirement package that I was given at the time,

23

as a result of a downsizing that was taking place

24

at Union Carbide.

25

Q. And I should ask you this. What is

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1

Lewinsohn

11

2 your current age?

3 A. 65.

4 Q. What happened then, as you retired
5 from Union Carbide at, I guess, at the age of
6 about 63? Would that be correct?

7 A. Yes.

8 Q. That was as a result of some
9 corporate downsizing?

10 A. That is correct.

11 Q. Where they were giving early
12 retirement packages to people?

13 You're shaking your head?

14 MR. WILL: You need to say "yes."

15 A. Yes, I'm sorry.

16 THE WITNESS: I thought it was a
17 rhetorical question.

18 MR. WILL: I thought so, too.

19 Q. Let me just ask you one more thing
20 about your current position.

21 Are you seeing any patients or doing
22 any work in the area of pneumoconiosis or
23 asbestosis in particular, or pneumoconiosis in
24 general?

25 A. No.

1

Lewinsohn

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Q. We've been given a copy here of your curriculum vitae, and I'll just have the reporter mark this as Exhibit 1.

(Curriculum vitae marked as Lewinsohn Exhibit 1 for identification, as of this date.)

Q. I'll show you now what has been marked as Lewinsohn Exhibit 1, and ask you if that is a copy of your current curriculum vitae?

A. Yes, it is.

Q. And is that complete and up to date as far as you know?

A. Yes, as far as I know.

Q. It indicates that you're originally from South Africa, is that correct?

A. That's correct.

Q. You went to university at Witwatersrand Medical School?

A. Well, the correct -- Witwatersrand.

Q. I was close.

And what was the degree that you obtained?

A. The degree is MB, BCh. It's the Latin for bachelor of medicine and bachelor of

1

Lewinsohn

13

2

surgery, which is comparable to the M.D. degree in
3 the United States.

4

Q. And you obtained that in 1952?

5

A. Correct.

6

Q. And when did you move from South

7

Africa to England?

8

A. 1956.

9

Q. You then obtained this diploma in

10

industrial health in 1968?

11

A. Correct.

12

Q. What did you do when you moved to

13

England in '56?

14

Did you have employment or were you

15

in school, or what were you doing?

16

A. No, I worked for a year in a hospital

17

in Kent, Farnborough, Kent, in the chest medicine

18

unit there.

19

And then I went to the London Chest

20

Hospital. And I was at the London Chest Hospital,

21

I believe, as a registrar, which is, I suppose,

22

equivalent to a resident.

23

And then I was a senior registrar and

24

the resident medical officer as the country

25

resident, medical resident assistant physician, I

1

2 forget what the title was.

3

May I just look at this?

4

MR. WILL: Sure.

5

A. Resident assistant physician at the
6 London Chest Hospital, Country Branch.

7

And then I left in '61 to come to the
8 United States.

9

Q. Now, at some point along the way, you
10 were a medical officer at Turner Brothers
11 Asbestos.

12

A. Yes, that wasn't until 1966.

13

Q. So did you go back to Britain then?

14

A. I went to Britain in '63, after being
15 here from '61 to '63, at Albert Einstein College
16 of Medicine.

17

Q. In New York City?

18

A. In New York City.

19

And then from '63 to --

20

MR. WILL: Wait for him to ask you
21 another question.

22

THE WITNESS: Sorry.

23

Q. What did you do in 1963?

24

A. That's when I went to the
25 pneumoconioses medical panel in Manchester, in

1

2 England.

3

Q. And that is listed on your CV as
4 "Pneumoconiosis Medical Officer, Ministry of
5 Pensions and National Insurance?

6

A. That's correct.

7

Q. In Manchester?

8

A. That's correct.

9

Q. Did you that from '63 to '66?

10

A. Yes.

11

Q. And then in 1966, you came to Turner
12 Brothers?

13

A. That's correct.

14

Q. Is that correct?

15

A. Yes, that's correct.

16

Q. Let me back up and go back to your
17 time in South Africa.

4

18

Q. You obtained your medical degree in
19 '52, correct?

20

A. Yes.

21

Q. And while you were in medical school,
22 in other words, up until 1952, did you see any
23 patients who had been exposed to asbestos?

24

A. I don't remember.

25

Q. And when you obtained that medical

1

Lewinsohn

16

2

degree in 1952, was that what we would call a

3

general medical degree, or had, at that point, you

4

specialized in some area?

5

A. No, that was my general medical

6

qualification.

7

Q. From 1952 until you came to England

8

in 1956, what were you doing?

9

A. I had to do a year as an intern in

10

South Africa. That meant you had to do six months

11

internal medicine and six months in surgery.

12

To fulfill that, six months, a house

13

physician at the Chamber of Mines Springkell

14

Sanatorium, which was near Johannesburg, and did

15

six months orthopedics at the Addington Hospital

16

in Durban.

17

I then stayed on at Addington for a

18

further six months as a senior house physician to

19

do some further internal medicine training.

20

And then went back to Johannesburg

21

and worked at a casualty officer in the

22

Johannesburg General Hospital of my teaching

23

hospital for six months.

24

And then, by that time, I felt that I

25

would like to pursue further studies in chest

1
2 diseases, and went back to the Chamber of Mines
3 Springkell Center Sanatorium as a resident medical
4 officer for a year.

5 Q. Where was that located?

6 A. That was near Johannesburg.

7 Q. And following your year's work there,
8 is that when you went to England?

9 A. Then I went to England, yes.

10 Q. Let me ask you then, during the
11 period 1952 to 1956, after you obtained your
12 medical degree, but before you left for England,
13 during that time period, did you see patients with
14 any asbestos-related disease of one sort or
15 another?

16 A. I don't remember seeing any.

17 Q. Let me just go through the different
18 things you did one year as an intern.

19 You did six months as intern in
20 medicine, and six months in surgery.

21 In the internal medicine portion of
22 that, what sort of patients would you see?

23 Were they just general patients that
24 would come into the hospital?

25 A. Yes. I suppose mostly patients with

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2 cardiovascular lesions, neurological conditions,
3 you know, the run of the mill general internal
4 medicine patients.

5 Q. Did you see any miners during that
6 period of time?

7 A. Let me just correct something.
8 Are we talking about 1953 now?

9 Q. Yes. I'm talking about your first
10 year as an intern.

11 A. Okay, I'm sorry, let me just correct
12 that.

13 The first year when I was at the six
14 months that I spent at Springkell Sanatorium, that
15 was run by the Chamber of Mines, and in order for
16 a patient to be admitted to that sanatorium, that
17 patient would have to be a miner.

18 Now, these in Johannesburg were gold
19 miners, basically. I don't believe I saw any
20 other miners.

21 During that period of time, I saw
22 many cases of silicosis as a result of mining
23 exposure, and many of those also were complicated
24 with TB.

25 Q. So what you were seeing as an intern

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2 then was gold miners?

3 A. Gold miner.

4 Q. Among those gold miners, you saw some
5 silicosis?

6 A. Yes.

7 Q. Other than the silicosis, were there
8 any other pulmonary conditions caused by the gold
9 mining that you treated or that you saw?

10 A. I don't know of any other conditions
11 besides silicosis, as I said, complicated by TB.

12 Q. Did you have any understanding at
13 that time, or any knowledge at that time, that
14 there was any cancer among these gold miners of
15 one sort or another that was related to their work
16 in the mines?

17 A. Silicosis was not considered a
18 carcinogen.

19 Q. Were you seeing any lung cancer?

20 A. Yes, I saw lung cancer. But I
21 would -- yes, I saw lung cancer.

5

22 Q. Let's go to your next stint, and that
23 would be in Addington, where you were a senior
24 house physician for six months?

25 A. I was a -- you skipped the

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orthopedic.

Q. I skipped the orthopedic?

A. Senior house physician, again, that was a general run of the mill internal medicine ward with heart cases, emphysema, bronchitis, neurological cases, run of the mill stuff.

Q. Did you see any pneumoconiosis among patients at that hospital?

A. I don't remember seeing any.

Q. Were there any miners seen?

A. No, not at Addington.

Also, unless, of course, somebody had been a miner, but it wasn't specifically set up to see miners.

Q. Next you were at Johannesburg as a casualty officer. Would that be an emergency-type situation?

A. That's correct.

Q. In that situation, you would see anyone who would come in with injury or disease?

A. Yes.

Q. Following that time, you went to back to the Chamber of Mines, 1955.

That was in '55?

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Lewinsohn

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A. I went back to the Chamber of Mines
Springkell Sanatorium.

4

Q. That is where you had been earlier?

5

6

A. That is where I had done six months
as a house physician in 1953.

7

8

9

Q. Was it at that point in 1955 that you
decided to concentrate or specialize in chest
diseases?

10

A. I believe it was.

11

12

Q. What was it if you can recall that
far back that brought you into that specialty?

13

14

Why was it that you decided to
specialize there?

15

16

17

18

A. I think that my six months in 1953
had interested me in the subject, and that once I
had completed my, you know, the further training
that I felt I wanted to do, I went back to it.

19

20

21

22

23

24

I went back to it and the training
process in the British system is somewhat
different from here, where you graduate from
medical school and then go into an internship and
residency program, which turns you out as one form
of specialist or another at the end.

25

And whereas, in the British system,

1

2 you, I suppose, gravitate to eventually what your
3 interest is, but the early years of training are
4 sort of nonspecific.

5

And that is how I -- so in 1955, I
6 had decided that I would like to continue to learn
7 more about chest diseases.

8

Q. So if we could summarize your medical
9 training up until 1955, it would be general
10 medical training nonspecific to any specialty, and
11 1955 was when you focused on chest diseases?

12

Is that fair to say?

13

A. That is fair to say, I think, yes.

14

Q. And again, going back to the Chamber
15 of Mines, describe for us exactly what that was.

16

Was this a sanatorium or a hospital
17 which just treated the gold miners or what was
18 that?

19

A. Yes. It's a long time ago, so you
20 must forgive me. I don't remember all about it
21 but --

22

Q. As best you recall.

23

A. It was owned by the Chamber of Mines,
24 as I told you previously.

25

It treated, it admitted patients who

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2 either were gold miners or had been gold miners
3 and were in receipt of a pension from the Chamber
4 of Mines, and treated them for chest diseases.

5 It specialized in chest diseases.

6 The name implies it started off as a sanatorium
7 for the treatment of TB, because one of the major
8 complications of silicosis is pulmonary TB.

9 By 1953, when I went to work there,
10 it was admitting patients with TB, was being
11 treated with the new antibiotics and chemotherapy
12 and was being brought under control and was
13 treatable.

14 People weren't spending three, four,
15 five years of their lives in sanatoriums while on
16 bed rest getting well. They were being treated
17 with drugs and getting out and being discharged.

18 So the bed they had been occupying
19 were available for other sorts of chest cases. So
20 the sanatorium also admitted some cases with heart
21 disease that were operable, and it admitted other
22 chest cases with other types of chest conditions
23 for investigation and treatment that were not
24 necessarily silicosis.

25 Q. So you still saw silicosis, I take

1

2 it, but you were also seeing other things at that
3 time?

4

A. Yes, we were.

5

Q. Maybe you told us this -- I guess you
6 were there for maybe one year, is that right, or
7 was it more than that?

8

A. In 1953, it was six months, and then
9 1955, '56, was one year.

10

Q. During the time that you were in
11 South Africa until you left for England, you told
12 us earlier, I think, that you hadn't seen any
13 patients during that time who were suffering from
14 any asbestos-related disease.

15

Is that fair to say?

16

A. I don't remember having seen any.

17

Q. And during that period of time,
18 during the entire course of that training going
19 back to your medical degree and then up through
20 '56, had you studied or learned anything about
21 asbestos or other asbestos-related conditions as
22 part of your medical training?

23

A. As part of my medical training, I had
24 heard and been told and taught about asbestos.

25

But I don't recollect having

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2 personally seen a case.

3 Q. And was it your understanding, again,
4 taking you back into those years up until 1956, if
5 you recall, if you don't, just tell me so, in
6 those years, was it your understanding that there
7 was any asbestos occurring or that had occurred in
8 South Africa, or was this something that you
9 studied about occurring in Britain?

10 A. I don't remember, quite honestly,
11 whether I was aware at that time of South Africa
12 as a country with a problem related to asbestos.

13 Q. Let me ask you this: You were aware,
14 of course, that there were various asbestos mines
15 and pits in South Africa, I take it?

16 A. Not necessarily aware of it.

17 Q. Well, then let me rephrase it

18 Until 1956, were you aware of the
19 fact that there was asbestos mining activity in
20 South Africa?

21 A. I can't say I was.

22 Q. But I take it, you never saw any of
23 the workers from those mines during that time?

24 A. I did not.

25 Q. And were you familiar with Dr.

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Lewinsohn

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2

Wagner, Chris Wagner, before you left South

3

Africa?

4

A. I think I had met Dr. Wagner before I

5

left South Africa.

6

Q. And again, I --

7

A. South Africa. Sorry, let me just

8

say, yes, I had met Dr. Wagner in South Africa.

9

Q. So that would be before 1956 at some

10

point?

11

A. Yes.

12

Q. Do you recall in what context you met

13

him in South Africa?

14

A. Yes, I met him while I was at

15

Springkell Sanatorium, and Dr. Wagner was one of

16

the pathologists that used to do autopsies.

17

Q. And again, before you left South

18

Africa, had you heard of the conditions of

19

mesothelioma?

20

A. No.

21

Q. And going back to this meeting or

22

meetings with Dr. Wagner when he was doing

23

pathology for you, did he mention, if you can

24

recall, at any of those meetings that he was

25

looking, or that he was seeing any mesotheliomas

1

2 in patients?

3

A. Not that I recall.

4

Q. Do you recall when the first time was
5 that you heard of Dr. Wagner's findings or reports
6 of mesothelioma among South African miners?

7

A. I believe that it was when I was at
8 the London Chest Hospital between 1957 and 1958,
9 that period of time. Maybe even '57 to '59. I
10 can't be precise on the date.

11

When the pathologist at the London
12 Chest Hospital, whose name was Dr. Hinson, told me
13 that he had a meeting with a fellow South African,
14 Dr. Wagner, who had been over to see him to
15 discuss his findings of cases of mesothelioma in
16 asbestos workers in South Africa.

17

Q. Let's just see if I've got this
18 straight.

19

At some point when you were at the
20 London Chest Hospital from '57 to '59, your
21 pathologist, Dr. Hinson, had spoken to Dr. Wagner?

22

Is that correct?

23

A. That is correct.

24

Dr. Hinson was a world-renowned
25 pulmonary pathologist.

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Lewinsohn

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Q. So you didn't speak to Dr. Wagner
3 directly during this period?

4

A. I did not speak to Dr. Wagner
5 directly.

6

Q. Do you recall what it was that Dr.
7 Hinson reported to you about Dr. Wagner's
8 findings?

9

A. I don't -- no, I don't recall.
10 Except that, you know, I think he
11 told me about his meetings as a matter of
12 interest, because we were both South Africans.

13

Q. Did you understand from those
14 understandings with Dr. Hinson that Dr. Wagner had
15 found mesothelioma among asbestos miners, or were
16 these factory workers, or do you have any
17 recollection of that?

18

A. No.

19

Q. What you do recall is simply the
20 report to Dr. Hinson that Dr. Wagner had seen
21 mesotheliomas?

22

Would that be fair to say?

23

A. Yes, Dr. Wagner was over to discuss
24 these cases with Dr. Hinson, Dr. Hinson being an
25 authority on pulmonary pathology.

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Lewinsohn

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Q. And this, of course, would be before
3 Dr. Wagner published those cases.

4

Would that be fair to say?

5

A. Yes, I don't think the cases were
6 published until 1959.

7

Q. When they were published, did you
8 read Dr. Wagner's paper about the cases?

9

Do you recall that?

10

A. I don't recall reading those cases at
11 that point in time.

12

Q. Do you recall when the first time was
13 that you did read those cases in the published
14 literature?

15

A. I would say, probably not until just
16 either before or at the time just before I left to
17 go back to England in '63, or after getting back
18 to England in '63, and joining the pneumoconiosis
19 medical panel did I do any reading about
20 mesothelioma and Dr. Wagner's cases.

21

Q. Now we're jumping ahead a little bit
22 here.

23

But at the time that you did read
24 about those, can you remember the context?

25

In other words, was this in

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2 connection with some research you were doing, or a
3 meeting you were attending, or did you just happen
4 to read about them, or how did that come about?

5 A. No, I was at -- I believe it would be
6 when I joined the Pneumoconiosis Medical Panel in
7 Manchester.

8 And I obviously had to be familiar
9 with, and up to date with all of the latest
10 developments in occupational lung diseases.

11 So, at that time, I read in greater
12 depth about mesothelioma.

13 Q. And that would be just generally in
14 connection with bringing yourself up to date on
15 the various diseases in connection with your work
16 at the pneumoconiosis unit?

17 A. Yes, because part of my role there
18 was diagnosing occupational diseases.

19 Q. Let me now go back to, I think we
20 were in 1956, you left South Africa.

21 You went to England and you spent one
22 year in the hospital at Kent, is that correct?

23 A. That's correct.

24 Q. And while you were at that hospital,
25 I'm just trying to find it here in your CV, let's

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2 see here.

3

Let's go back a little further.

4

5 Senior house officer, Department of
6 Medicine at Farnborough, Kent. It said, you were
7 attached to the chest unit, is that correct?

8

A. That is correct.

9

10 Q. And what sort of conditions were you
11 seeing or treating during that year in Kent?

12

A. This was a TB ward, basically.

13

14 Q. Were you seeing any pneumoconiosis of
15 any sort at that time?

16

A. Not that I can recollect.

17

18 Q. Were there any, you have to pardon my
19 geography of England, but was there any coal
20 mining around Kent?

21

A. No.

22

Q. So that wasn't the coal mining area?

23

A. No.

24

25 Q. So you weren't seeing any coal
miners?

26

A. No.

27

28 Q. Any mining of any kind that you were
29 seeing, of any kind?

30

A. No.

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Q. Then you went from '57, or in '57, you went to the Pinewood Hospital in Wokingham in Berkshire, correct?

A. Correct.

Q. What sort of work were you doing there?

A. That was a two-month stint as a local tenant.

Q. As a what?

A. Locum Tenens, just like a temporary job. And that was a TB sanatorium.

Q. And did you see any pneumoconiosis there?

A. No, I did not.

Q. Then you went to the London Chest Hospital in '57, from '57 to '58 as a medical registrar.

What did that involve?

A. That's equivalent to a resident in the American system.

And the London Chest Hospital admitted cases from basically the east end of London, mostly chronic obstructive pulmonary disease, bronchitis, emphysema.

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There was still quite a lot of TB around, lots of cases of lung cancers, and we also did cardiovascular surgery at the London Chest Hospital, so there were various heart diseases there for the treatment.

Q. And then during the next year, from '59 to '60, you were the senior registrar at the London Chest Hospital.

I take it, that was the same place?

A. No, this was at the Country Branch Arlesey, Beds. That -- I was actually the senior physician on the house staff there, and in charge of this hospital, which was again largely TB, where the TB cases from London were sent.

The ones that were going to take longer to get better were sent out to the country for, you know, to be treated long term, and also did some surgery out there.

Q. During this stint in Britain from '56 to '60, did you learn anything further about asbestosis, other than the knowledge you had gained back in South Africa?

A. That's a difficult question to answer, because I don't know how I can say what I

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2 specifically learned at what time.

3 Q. Let me do this,

4 Taking yourself up to the time you
5 left for New York, the period of time you were in
6 England the first time, you say you can't
7 specifically recall if you learned anything
8 further about asbestosis.

9 Would that be fair to say?

10 A. I didn't exactly say that I didn't
11 learn anything further.

12 I said that I couldn't place it
13 within a time frame.

14 Q. Okay.

15 A. It's difficult to do that.

16 I know that I knew more about
17 asbestosis by the time I left to come to the
18 United States than I had known when I probably --
19 when I started to work in England.

20 The reason I say that, to answer your
21 question, is that I -- and you'll see that in my
22 resume -- I had a course in advanced medicine at
23 the London Hospital in January '61 to March '61.

24 Q. Let's see, I'm trying to find that.

25 Yes, here it is.

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A. And I obviously knew something about
3 asbestosis then because I can remember seeing a
4 case, being shown a case in the wards to discuss
5 and being able to discuss.

6

Q. So during your course in advanced
7 medicine in '61, when you say you saw a case,
8 there actually was a patient there with asbestosis
9 or was it --

10

A. It was a demonstration case by one of
11 the teachers of the course and, you know, the way
12 they teach in medicine is to pull some poor
13 student out the crowd and ask him or her to
14 examine the case and venture a diagnosis.

15

And I was that poor student, so
16 that's how I remember it so well.

17

Q. How was the diagnosis made in that
18 case?

19

Was it on x-ray or was it pathologic?

20

A. It was a clinical diagnosis and then,
21 obviously, history, asking questions, then
22 being -- then being prompted by the teacher, what
23 else would you like to know, and asking for an
24 x-ray, et cetera.

25

Q. Since you were the student who was

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2 pulled out of the crowd for that case, do you
3 recall what the clinical history was that was
4 being given by the patient?

5 A. No, I honestly don't recall that.

6 Q. Do you recall if that patient was a
7 worker in a British asbestos factory?

8 A. No, I don't recall the occupational
9 history.

10 Q. Do you recall what the diagnosis was?

11 A. The diagnosis was asbestosis.

12 And I believe that man also had lung
13 cancer, but I really am taxing my memory.

14 Q. I understand that. We're going back
15 a long ways.

16 If you don't understand any of this,
17 tell me so, but I am trying to get what you do
18 recall.

19 A. I do remember that case.

20 Q. Let me stop you there then, as long
21 as we're on the topic of that case.

22 By that point in time, 1961, had you
23 come to learn or understand that there was some
24 relation between asbestos exposure or asbestosis
25 and lung cancer?

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A. Yes, I had.

3

Q. And do you recall where you had
4 gained that knowledge?

5

A. I suppose primarily, from the
6 literature.

7

Q. Did you know Dr. Gerrit Schepers at
8 that point?

9

A. No, I never met Dr. Schepers.

10

Q. I take it, you've heard of him in
11 recent years, but I'm wondering, back in those
12 years, had you ever heard of him?

13

A. I heard of Dr. Schepers when I was at
14 Springkell Sanatorium.

15

I believe Dr. Schepers was somehow or
16 other connected with the Chamber of Mines and had
17 some administrative responsibilities for the
18 miners that we admitted to the sanatorium for the
19 administration of their benefits and that sort of
20 thing.

21

Q. Let me take you back to the patient
22 with the asbestosis which you were plucked out of
23 the crowd to discuss in 1961.

24

Was it you who that made the
25 diagnosis of asbestosis, or had that diagnosis

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previously been made by someone else and they were

3

testing you to see if you could get it correct?

4

A. This was a documented case of

5

asbestosis that was probably admitted for that day

6

and paid to come in, just to be a case for the

7

students to examine and talk about.

8

Q. And did the patient have lung cancer

9

at the time that this discussion took place on the

10

date when he came in?

11

A. I believe he did.

12

Q. And did you have any understanding at

13

that point that that patient's lung cancer was

14

related to his asbestos exposure?

15

A. I knew at that time that there was an

16

association between lung cancer and the disease

17

asbestosis.

18

Q. And did you understand at that time

19

that if a person had asbestosis, that there was an

20

increased risk or increased probability that he

21

could get lung cancer as a result of that?

22

A. I think that's what I just said.

23

Q. Was it also your understanding at

24

that time that an asbestos-exposed individual

25

needed to have clinical asbestosis before there

1

2 was an increased probability risk of him getting
3 lung cancer, if you recall?

4

MR. GERSON: Could you repeat the
5 question?

6

A. I think you're asking --

7

MR. BROWNSON: I better ask her to
8 repeat it, so I can get it accurately.

9

(Record read)

10

MR. WILL: I think you need to
11 rephrase it.

12

A. I think you need to rephrase it.

13

MR. BROWNSON: If you want to take a
14 break at any time, just tell me and we'll
15 do so.

16

Let me rephrase that question.

17

Q. What I was getting at is, taking
18 yourself back to that case in 1961, at that point
19 in time, if you recall, did you have any
20 understanding that an asbestos-induced or an
21 asbestos-related lung cancer could be found in a
22 patient who did not have asbestosis?

23

A. At that time, I believe it was
24 generally held that it was a prerequisite for
25 asbestosis to be present in order for the lung

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Lewinsohn

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2 cancer to be considered related.

3 Q. And if you can recall, what was the
4 clinical definition of asbestosis at that time?

5 A. I can't recall.

6 Q. Let me ask you this: Was the
7 diagnosis of asbestosis at that time, in 1961,
8 made based upon an x-ray?

9 A. The diagnosis of asbestosis, as far
10 as I'm concerned, is never made on the basis of
11 any single finding.

12 Q. What were the diagnostic criteria at
13 that time, if you can recall?

14 A. The clinical criteria were symptoms
15 of breathlessness, shortness of breath, aggressive
16 shortness of breath, the presence of fine
17 crepitant rales, usually at the lung base and
18 extending up to the aveoli which did not disappear
19 on coughing, mainly the inspiratory phase of
20 respiration, with or without the presence of
21 clubbing of the fingers and toes.

22 And with radiological appearances
23 which, in those days, one referred to as -- I'm
24 trying to think of the term --

25 Q. Shadows?

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A. No, I'm trying to think of the terminology, it's gone for the moment, a shaggy heart border on the x-ray, and lower zone infiltrates.

I guess that is as close as I can get.

That, I would say, would be the diagnosis was made on those clinical criteria.

Q. And the lower zone infiltrates on the x-ray, that would be some actual visible fibrosis on the x-ray?

A. Yes, I didn't call it fibrosis, but that is what it would be, yes.

Q. Was it required at that time, as part of the diagnostic criteria, that this lower zone infiltrates or fibrosis be bilateral?

A. Oh, yes. Usually bilateral.

Q. And let me ask you this: Was the rales a required part of the criteria; in other words, if that was not present, the diagnosis could not be made, or how did that work?

A. Well, for a clinician to make a diagnosis of pulmonary fibrosis, which is what asbestosis is, in those days, when the stethoscope

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2 was still very much respected as a diagnostic
3 instrument, the presence of bilateral found
4 crepitant rales was one of the essentials of
5 making a diagnosis.

6 Q. Clubbing was not, in other words,
7 clubbing was something that was looked for, but
8 not essential?

9 A. Clubbing was the not a pathopneumonic
10 of asbestosis, but it often was found in
11 conjunction with it.

12 Q. And do you remember if this
13 particular individual had any clubbing of the
14 fingers?

15 A. Yes, this particular individual did
16 have clubbing of the fingers.

17 Q. Was this the first actual case of
18 asbestosis you had seen, as you think back on it?

19 A. Probably. That is probably why I
20 remember it so clearly.

21 Q. At least it sticks out in your mind
22 because you were plucked from the crowd to discuss
23 it?

24 A. It does.

25 Q. Again, let me take you back to that

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Lewinsohn

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2 time, 1961.

3 You mentioned that you were familiar
4 with the association of the lung cancer and
5 asbestosis at that time.

6 Do you remember what literature or
7 reports you had read up to that time on that topic
8 of lung cancer and asbestosis?

9 A. I think the report that I that I knew
10 about was the work of Richard Doll, which had been
11 published in 1955, in fact, where he showed
12 increased incidents in excess of lung cancer in
13 asbestos textile work as had been exposed for a
14 long period of time and eventually asbestosis.

15 A. I need to take a break.

16 Q. Sure.

17 (Recess taken.)

18 BY MR. BROWNSON:

19 Q. Dr. Lewinsohn, we were talking about
20 1961 in this asbestosis case that you were
21 reviewing in London.

22 And I think the last question and
23 answer was that this was, as you recalled it, the
24 first asbestosis case that you had seen, as you
25 sit here today and think back on it.

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Would that be fair to say?

3

A. That's fair to say, yes.

4

Q. Now at the time you saw this case in

5

1961, as I understand it, you were aware of the

6

work of Dr. Wagner and the mesothelioma, at least

7

from your conversations with the pathologist, is

8

it Hinson?

9

A. Hinson, yes.

10

Q. Right.

11

But as I understand it, you had not

12

actually read Dr. Wagner's paper at that time.

13

Would that be fair to say?

14

A. Not that I can remember.

15

Q. But you had read Sir Richard Doll's

16

paper about the asbestos textile workers and lung

17

cancers?

18

A. I was aware of that, yes. I had read

19

it.

20

Q. That's what I wasn't clear on, if you

21

had actually read his paper at that time, or had

22

just heard about it?

23

A. That's difficult to say whether I

24

read about it or heard about it, but -- I knew

25

about it.

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Lewinsohn

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2

Q. You, of course, were familiar with

3

Dr. Richard Doll, knew who he was and such?

4

A. Yes, knew who Richard Doll was

5

because of his work on smoking and cancer.

11

6

Q. I shouldn't say "Dr."

7

A. He was, at that time, Dr. Richard

8

Doll. He wasn't knighted until later.

9

Q. Before the "Sir."

10

A. Right.

11

Q. Would it be fair to say that, by

12

1961, when you saw this asbestosis patient, it was

13

commonly held in, at least where you sat in

14

England, that lung cancer could be related to

15

asbestosis?

16

A. Could you just repeat that? Sorry.

17

Q. As of 1961, when you saw this

18

asbestosis patient, would it be fair to say that

19

it was commonly held in the medical community that

20

lung cancer could be related to asbestosis?

21

MR. WILL: Bob, I don't know if you

22

have established that he has a basis for

23

all of this, but he can go ahead, subject

24

to that objection.

25

MR. BROWNSON: That's why I am

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Lewinsohn

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asking.

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A. My answer to that would be that asbestosis was probably not a very common disease which most of the medical community would have been familiar with.

But that those people specializing in chest diseases would have known about.

Q. When you say it was not a common disease, in the year 1961, would that be because -- strike that.

Would it be fair to say that asbestosis was never a common disease in England?

A. I suppose that if you put asbestosis in relationship to something like bronchitis and emphysema, that which would have been the common chest disease in England, it was a relatively -- it was a relatively small proportion of cases that chest physicians would see.

Q. And as of 1961, did you have any understanding, or had you gained any understanding of the latency period between exposure to asbestos and any onset of lung cancer?

A. No, because in 1961, you know, I really wasn't studying in any great depth the

1

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2 diseases of occupations, although I was interested
3 in them.

4 Q. Did you have any understanding, in
5 1961, that with the -- how would I put this --
6 with the demise of TB and with the factory
7 regulations in England, that there was an increase
8 of the tumors or cancer seen among
9 asbestos-exposed individuals because they were
10 living longer?

11 A. That is a formative period in my
12 career, and I was probably learning about things.

13 And where at this moment in time, I
14 can't recollect what my precise knowledge was, I
15 can't answer that question.

16 Q. Did there come a time when you gained
17 an understanding along those lines?

18 A. Did there come a time?

19 Q. Right.

20 A. When I gained an understanding that?

21 Q. Well, I don't want to rephrase that
22 whole question, but the point I'm trying to get at
23 was, did you gain an understanding at some point
24 in time that tumors or cancers were showing up
25 among asbestos-exposed individuals in large part

1

Lewinsohn

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2 because the serious pulmonary diseases had been
3 taken care of to some extent, so these patients
4 were living longer and tumors were starting to be
5 seen at later points in their life?

6 A. I don't know where you get that
7 information from, but that's never been part of my
8 thinking.

9 Q. Well, I get it from reading some of
10 the early literature in England where statements
11 are made to the effect that, in the early days,
12 particularly before the British factory
13 regulations in 1931 and such, and even after that,
14 that there were the heavy exposures and people
15 were getting serious pulmonary diseases and dying
16 of these diseases.

17 And in the later years, as those
18 things were brought more under control, these
19 people were living longer and they were starting
20 to see the cancers appear.

21 A. Okay.

22 I think what threw me in your
23 question was your general terminology of people.

24 What I would say is that --

25 Q. What I mean to say is asbestos

1

Lewinsohn

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2 workers.

3 A. If you were to say asbestos workers,
4 then, yes, I believe there came a point in time
5 when it was my feeling that as the severity of
6 asbestosis decreased and, in fact, the incidents
7 of asbestosis declined, there was a greater
8 opportunity for the development subsequently of
9 tumors in those individuals who had survived
10 beyond the time span that they would have survived
11 in the earlier days.

12 Q. That's the point I was trying to
13 make.

14 Do you remember when you gained that
15 understanding?

16 A. I would say that some time in between
17 joining the Pneumoconiosis Medical Panel and going
18 to work at Turner Brothers Asbestos in Rochdale.

19 Q. Again, among people in the field,
20 that would be people, I guess chest physicians who
21 dealt with occupational diseases, was this a view
22 that was held in the field during those years,
23 early sixties up until the time you started with
24 Turner Brothers in, I guess, '66?

25 A. I don't think that the run of the

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Lewinsohn

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2 mill physician in the field was terribly concerned
3 with those issues, particularly clinicians.

4 I think that these were issues that
5 were being considered by the epidemiologists,
6 people doing research into the manifestation,
7 incidents and development of disease.

8 Q. And among the people doing the
9 research at that time, in the early or by the
10 early sixties, was certainly Sir Richard Doll was
11 involved in that field?

12 Would that be fair to say?

13 A. I would say Sir Richard Doll was
14 certainly involved in that field.

15 Q. Who else in England, during those
16 times, early 1960s, were involved in that field?

17 A. Well, I think there were people in
18 government, in the --

19 Q. Factory inspector?

20 A. The factory inspector.

21 I believe that people at the Medical
22 Research Council in Penart, in Wales, could have
23 been -- were involved, like Dr. Gilson.

24 I think that Dr. Wagner was, by that
25 time, working in England as well.

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So those were some of the people that
I could think of.

4

Q. How about Dr. Timbrell, was he
involved in that?

6

A. Well, I can't speak for Dr. Timbrell.
I don't know when he became involved.

8

Q. How about Dr. Robert Murray, do you
know if he was involved with the factory
inspectorate in those years, in the early sixties?

11

A. Again, I didn't know Dr. Robert
Murray in that period of time, in 1961.

13

In fact, I did not meet Dr. Robert
Murray until I went to Turner Brothers, which was
my first meeting with him.

16

I would say that anybody working for
the factory inspectorate suddenly was aware of the
asbestos-related diseases and of the epidemiology,
because they would acquire that knowledge as part
of their job.

21

Q. Would it also be fair to say that, as
of the early 1960s, before you went to Turner
Brothers, that anyone dealing within the area of
pneumoconiosis would be familiar with the work of
Sir Richard Doll and the work of the factory

25

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Lewinsohn

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2 inspectorate, Dr. Meriwether?

3

4

5

MR. WILL: Can you be a little more
specific as to what time you are talking
about?

6

7

Are you talking about in the United
States, at Albert Einstein?

8

MR. BROWNSON: Let me back up.

9

Q. Let me take you back to 1961, when we
were talking a little while ago about that
asbestosis.

12

13

Did you understand that there was a
factory inspectorate at that time?

14

15

A. I knew there was a factory
inspectorate, yes.

16

17

18

19

Q. Were you familiar with the literature
coming out of the factory inspectorate by that
time, 1961, dealing with the asbestos textile
factories in England?

20

A. No.

21

22

Q. When was the first time that you
became familiar with that literature?

23

24

25

A. Probably not until the period of time
that I was either with the Pneumoconiosis Medical
Panel, or shortly after I went to Turner Brothers.

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Lewinsohn

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2

Q. Just so we can put a date on it, when
3 had you started at the Pneumoconiosis Panel, in
4 '63?

5

A. Correct.

6

Q. So at that point, in the 1963 to '66
7 time period, you became familiar with that work?

8

A. Well, '63 and onwards, even maybe
9 after '66, when I went to Turner Brothers, but I
10 can't place a --

11

Q. Let me ask you this: When you began
12 in the Pneumoconiosis Panel, you told us that it
13 was at that point that you read, for example, Dr.
14 Wagner's paper about the mesotheliomas.

15

Is that correct?

16

A. When I went to the Pneumoconiosis
17 Medical Panel, I had to familiarize myself with
18 mesothelioma and other occupational lung diseases.

19

Q. Of course, you already knew about
20 asbestosis at that time?

21

A. I knew about asbestosis.

22

Q. Do you recall if, at that time when
23 you started at the Pneumoconiosis Panel, that you
24 read, for instance, the papers by Dr. Meriwether
25 dealing with the asbestos workers?

1

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2

A. No, I did not read Dr. Meriwether's
3 paper at the time I was with the Pneumoconiosis
4 Medical Panel.

5

Q. When you began at the Pneumoconiosis
6 Medical Panel in 1963, did you -- strike that.

7

As I understand it, the purpose of
8 that panel was to -- I don't know what the proper
9 word was -- was to qualify or rate people for
10 pensions?

11

Is that fair to say? Disability
12 pensions.

13

A. The Pneumoconiosis Medical Panel had
14 a number of functions, one of which was to
15 medically evaluate persons claiming industrial
16 injuries benefits for pneumoconiosis, and to make
17 a diagnosis.

18

And after making a diagnosis, to give
19 an estimate of the degree of impairment, so that
20 these people would then receive a pension based
21 upon that medical opinion.

22

Q. Okay.

23

A. That was one of our functions.

24

Q. When you were on the panel from '63
25 to '66, were you actually engaged as a physician

1

Lewinsohn

55

2 during that work, or were you on some sort of
3 administrative task?

4 A. No, that was my role.

5 Q. And there --

6 A. There were five of us doing that.

7 Q. And the five of you who did that, was
8 that just in the Manchester office or would that
9 be throughout the country?

10 A. No, we worked in the region that the
11 office covered.

12 It was a regional office and it took
13 us into most of Lancashire, work parts of
14 Yorkshire-Bersk Bershire, and parts of Northern
15 Ireland.

16 Q. So there were five of these medical
17 officers on the regional panel, and you were one
18 of the five?

19 A. And one of whom was the, I guess, the
20 senior medical officer who had responsibility for
21 the administration of the medical aspects of the
22 panel's work.

23 Q. During those three years that you
24 were a medical officer in the Pneumoconiosis
25 Panel, I assume you saw, for instance, coal

1

2 miners?

3

A. Yes.

4

5 Q. And did you also see any asbestos
workers during that three-year period?

6

A. Yes.

7

8 Q. Were these asbestos workers who you
saw out of some particular plant or facilities, or
9 were they just kind of a helter-skelter group of
10 people?

11

Let me put it another way.

12

13 Within your region, were there
certain asbestos plants or facilities out of which
14 you saw workers making claims for benefits?

15

A. Yes, there were.

16

17 Q. What were those plants or facilities
that were in your region?

18

19 A. There was the Turner Brothers
Asbestos Company Limited, which had two plants.

20

21 There was another Turner York
Company.

22

23 Turner Asbestos Cement, which had, if
I recall correctly, two plants.

24

25 There was a company called Small &
Parkes, which made brake linings. I think they

1

2 were a Cape Asbestos subsidiary.

3

4 There was, in addition, a shipyard in
5 a town called Barrow-In-Furnass, up in
6 Bedfordshire, where we used to see cases.

6

7 That's probably enough. There were
8 some others.

8

9 Q. Let me, before we get into that,
10 let's back up a minute.

10

11 When you went to the United States,
12 as I understand it, from '62 to '63, you were in
13 the United States?

13

14 A. '61 to '63.

14

15 Q. '61 to '63?

15

16 A. Yes.

16

17 Q. And were you at Albert Einstein
18 College for that two-year period?

18

19 A. I did a residency at the Bronx
20 Municipal Hospital Center, which is the teaching
21 center for Albert Einstein. I was on a residency
22 in pulmonary diseases.

22

23 Then I had a fellowship in
24 cardiopulmonary physiology at Albert Einstein.

24

25 Q. During that time period, did you see
any asbestos-related disease in the Bronx or at

1

Lewinsohn

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2 Einstein?

3 A. I don't remember seeing that.

4 Q. I suppose I should ask you, although
5 I think I know the answer to this, did you ever
6 meet Dr. Selikoff during those years?

7 A. 1961 to '63?

8 Q. To '63.

9 A. No, I did not.

10 Q. Let's go back when you were on the
11 Pneumoconiosis Panel from '63 to '66.

12 You mentioned that you saw workers
13 from Turner Brothers and, as I understand it,
14 Turner Brothers had two plants in your region?

15 A. Two plants, yes.

16 Q. And which two plants were those?

17 A. There was the Rochdale factory and
18 there was one at a factory called Hindley Green
19 near Wigan in Lancashire.

20 Q. Was the Rochdale factory still in
21 operation during those years?

22 A. Oh, yes.

23 Q. When had that factory begun, as you
24 had understood it?

25 A. Well, it had started its life as a

1

Lewinsohn

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2 cotton mill, and I believe after the turn of the
3 century, the first asbestos was brought to
4 Rochdale.

5 Q. Do you know -- again, I don't want to
6 dwell on these early years, but in the early years
7 of the Rochdale plant, what it it was using the
8 asbestos for?

9 A. It was using it for textile. It was
10 a textile plants.

11 Q. Was it a textile plant throughout the
12 year, or did they get into other products?

13 A. Well, it was always a textile plant,
14 but they did have other products there as well.

15 Q. So let's go up through the year 1963,
16 when you were on the Pneumoconiosis Panel.

17 Were they still making asbestos
18 textiles at Rochdale?

19 A. Yes, they were.

20 Q. And in addition to that, by 1963,
21 were they making any other products, other than
22 the textiles at Rochdale?

23 A. Yes, they were.

24 Q. What was that?

25 A. They had various rubber composite

1

2 products that they were making.

3

Q. What would these be like sheet goods?

4

A. Rubber sheeting, Hindley Green -- I'm
5 sorry, Rochdale, sheeting.

6

I don't remember precisely, but there
7 was a rubber department.

8

Q. And during the time you were on the
9 Pneumoconiosis Panel from '61 to '63, did you ever
10 visit the Rochdale plant?

11

A. No. When I was on the panel?

12

Q. When you were on the panel.

13

A. Yes, it was part of my job.

14

Q. During that time period '61 to '63,
15 did you see or did you examine workers from the
16 Rochdale plant as part of your duties on this
17 Pneumoconiosis Panel?

18

A. Yes. Part of our duties on the panel
19 was to do initial and periodic examinations of
20 workers in certain industries to qualify them
21 medically for working in those industries.

22

And then, you know, so we could see
23 them initially, and then follow them periodically
24 to see that they were still qualified over the
25 time that they were getting ill.

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Q. So I had asked you initially about
3 this business of seeing patients for purposes of
4 determining medical pensions.

5

But in addition to that, as I
6 understand it, you also gave them qualifying
7 scales and periodic scales?

8

A. That was a statutory requirement.

9

Q. When you would do that for the
10 workers at Turner Brothers and Rochdale, would you
11 go to Rochdale and do it at the plant or was there
12 a hospital there?

13

A. Yes.

14

The regulations require that the
15 employer make available the necessary
16 accommodation, and Rochdale had a very well
17 equipped medical facility on-site.

18

Q. Right at the plant?

19

A. At the plant.

20

Q. As I understand the physical exams
21 that you would do for the workers at Rochdale from
22 '61 to '63, if a new worker was hired, they had to
23 have a qualifying exam before they began.

24

Is that correct?

25

A. It had to be done within, I believe,

1

2 three months of hire.

3

Q. What did that exam consist of, this
4 qualifying exam?

5

A. It was a physical -- a history, usual
6 medical and occupational history, and then a
7 physical examination.

8

Q. And was there anything in a person's
9 medical history that would disqualify them for
10 work at Rochdale during those years?

11

A. I believe we had certain criteria. I
12 can't remember exactly what they were.

13

For example, active TB, presence of
14 preexisting pneumoconiosis, some of these people
15 had been coal miners, worked in other industries,
16 but preexisting pneumoconiosis, severe chronic
17 lung disease.

18

Q. I'm curious. Were you still seeing
19 active TB in '61 to '63?

20

A. Certainly.

21

MR. WILL: I think he misspoke. I
22 think you meant '63 to '66?

23

MR. BROWNSON: '63 to '66 is what I
24 meant to say.

25

THE WITNESS: Yes.

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A. Not frequently but yes.

Q. So would it be fair to say that the British factory regulations from '63 to '66 required the qualifying exam to work in an asbestos textile plant?

A. The silicosis and asbestosis medical arrangement scheme of 1931 required that the Pneumoconiosis Medical Panel examine workers in certain industries to determine their suitability for employment in those industries.

Q. And one of those industries would be asbestos textile?

A. As best -- well --

Q. Or asbestos generally?

A. Well, it was -- there were the regulations for asbestos were the asbestos industry regulations of 1931, and there were certain criteria established under those regulations to determine where they were applicable.

And wherever those regulations were applicable, the panels were required to provide these examinations.

Q. So as of '63 to '66, it was the 1931

1

Lewinsohn

64

2 regulations that were still in effect?

3 A. That is correct.

4 Q. And those regulations applied to the
5 Turner Brothers Rochdale textile plants?

6 A. They did.

7 Q. And did they apply because asbestos
8 was being used there, or did they apply for other
9 reasons as well?

10 A. No, the asbestos regulations industry
11 applied because of the use of asbestos.

12 Q. Were there other
13 pneumoconiosis-producing dusts or regulated dusts
14 in that plant from '63 to '66 other than asbestos?

15 A. No.

16 Q. You mentioned that, early on, that
17 had started its life as a cotton mill.

18 When did that end? Do you know?

19 A. Oh, I would say, probably before the
20 first World War, maybe earlier.

21 Q. So from 1931, at the time the factory
22 regulations went into effect, up until 1966, when
23 you joined Turner Brothers, would the regulated
24 dust or the pneumoconiosis-producing dust at
25 Rochdale have been asbestos?

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Lewinsohn

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2

A. Yes, it would have.

3

Q. Were there any other, than the

4

asbestos, during those years?

5

A. No.

6

Q. In addition to this initial

7

qualifying exam, if I can call it that, were

8

periodic scales also required of the men at

9

Rochdale when you were on the Pneumoconiosis Panel

10

from '63 to '66?

11

A. Men and women, yes.

12

Q. What was the requirement for the

13

periodic exams?

14

A. The statutory requirement was that

15

they had to be conducted periodically at least

16

every two years.

17

Q. And again, would that be the same

18

sort of examination or clinical pulmonary

19

examination?

20

A. Yes, it was basically limited to an

21

examination of the heart and lungs of the chest

22

and a history.

23

Q. And would that include x-rays?

24

A. X-ray was not a requirement, but if

25

the examining physician wanted an x-ray, he could

1

Lewinsohn

66

2 ask for one.

3 Q. And during the years you were on the
4 Pneumoconiosis Panel, from '63 to '66, did you ask
5 for x-rays for any of the Rochdale workers?

6 A. I didn't have to, because at
7 Rochdale, they had their own medical surveillance
8 medical program running concurrently, and their
9 physician would examine their employees every two
10 years as well.

11 So that they would examine in the
12 intercurrent years between the two years required
13 by the panel and then the company's requirements.

14 And they were all x-rayed, and when
15 we went out as representing the panel to do these
16 exams, we were provided with their x-rays.

17 Q. So --

18 A. So at that particular facility, we
19 did not have to request x-rays. They were given
20 to us.

21 Q. So at the Rochdale plant for Turner
22 Brothers, Turner Brothers would do medical exams
23 every two years and they would take an x-ray as
24 part of that exam?

25 A. Right.

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Lewinsohn

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2

Q. And then you would come in on the odd

3

year?

4

A. That's correct.

5

Q. And do your own exam, correct?

6

A. Yes.

7

Q. So these men and woman actually were

8

seen once a year, one year by you and the next

9

year by Turner Brothers?

10

A. That's correct, unless either the

11

panel or the Turner Brothers physician wanted that

12

frequency increased.

13

Q. And did the frequency of exams have

14

anything to do with the type of work that the

15

workers were doing, or did it apply equally to all

16

of the workers in the plant?

17

A. It applied equally to all of the

18

employees who were in what we would call the

19

scheduled areas. Those were the areas where the

20

asbestos industry regulations of 1931 apply.

21

Q. And the x-rays that were taken then

22

of the Rochdale workers were taken by the Turner

23

Brothers medical staff, and then when you would

24

come in for your bi-annual reviews on the

25

Pneumoconiosis Panel, you would request the most

16

1

Lewinsohn

68

2 recent x-ray for the workers, is that correct?

3 A. We were given the package.

4 Q. So this would --

5 A. We didn't have to request at
6 Rochdale.

7 Q. Would the package then include all of
8 the x-rays that had been taken?

9 A. All of the serial x-rays that had
10 been taken.

11 Q. And what was it, or what criteria
12 were there on these periodic exams that you did on
13 the Pneumoconiosis Panel that could disqualify a
14 worker from working in the plants?

15 A. Well, some, I already mentioned to
16 you.

17 The presence of TB or development of
18 other chest diseases, et cetera, that, in our
19 opinion, made these people appear to be more
20 susceptible to the development of asbestosis, or
21 perhaps if not more susceptible, because they were
22 already compromised more severely should they
23 develop any of these diseases.

24 We were also looking for the clinical
25 findings that were associated with asbestosis.

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2

And we took the finding of the basal crepitant

3

rales as being extremely significant, even in the

4

absence of clear-cut radiological findings.

5

Q. So would it be fair to say that

6

during those years, from '63 to '66, when you were

7

on the Pneumoconiosis Panel, that when you were

8

looking at workers from the Turner Brothers

9

Rochdale plant, a determinant factor in

10

determining whether that worker had asbestosis was

11

whether there was basal crepitant rales?

12

A. That was a significant factor, yes,

13

not the only one, but a significant one.

14

Q. And in the absence of basal crepitant

15

rales during those years from '63 to '66, could

16

you make or did you make a diagnosis of

17

asbestosis?

18

A. We would probably have been reluctant

19

to do so.

20

Q. Do you recall ever making a diagnosis

21

of asbestosis during those years for any of the

22

Rochdale workers who did not have basal crepitant

23

rales?

24

A. I don't recollect.

25

Q. Let me ask you this: Was the

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Lewinsohn

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2 presence of basal crepitant rales a criteria for
3 disqualifying a worker from working in the
4 scheduled areas from '63 to '66?

5 A. Not just -- I think I said earlier
6 on, one criteria would not have been sufficient.

7 The Pneumoconiosis Panel looked for a
8 number of criteria and a combination of any two
9 would have been sufficient.

10 And those included basal rales,
11 radiological appearances, an occupational history
12 of exposure, adequate occupational history of
13 exposure.

14 Q. So if you had any two of those three
15 criteria, that would disqualify you from working?

16 A. That would usually be sufficient to
17 consider a diagnosis of asbestosis.

18 And if you had made a diagnosis of
19 asbestosis, then we had the right to suspend an
20 employee from further employment in that
21 particular occupation where he was considered to
22 be -- where he continued to be exposed.

23 Q. From '63 to '66, when you were on the
24 pneumoconiosis unit, did you, Dr. Lewinsohn,
25 suspend or ask that any workers be suspended at

1

Lewinsohn

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2 the Rochdale plant because of a diagnosis of
3 asbestosis?

4 A. To the best of my recollection, I
5 did.

6 That was usually a decision made by
7 two physicians, not simply by one.

17

8 Q. Two physicians on the Pneumoconiosis
9 Panel?

10 A. Yes.

11 Q. Would all five of you on the panel,
12 from '63 to '66, go to Rochdale, or were there
13 just certain ones who would?

14 A. No, we all rotated through Rochdale.

15 Q. And in the three years that you were
16 on the panel, from '63 to '66, can you tell me how
17 many workers the Pneumoconiosis Panel suspended
18 from work at Rochdale because of asbestosis?

19 A. No, I can't tell you that. I don't
20 remember.

21 Q. But do you recall at least personally
22 doing that on one or more than one occasions?

23 A. I do, yes.

24 Q. And if you had to estimate the number
25 of workers who were suspended by the

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2 Pneumoconiosis Panel from '63 to '66, can you give
3 me any ballpark estimate of how many that would
4 be?

5 MR. WILL: Excuse me, Bob.

6 He would know how many he
7 participated in, but not necessarily if
8 some other panel went to the plant and he
9 wasn't involved.

10 MR. BROWNSON: Let me rephrase the
11 question.

12 Q. Do you know how many workers, can you
13 estimate for us how many workers you suspended, or
14 a panel that you were a part of suspended from the
15 Rochdale plants from '63 to '66?

16 A. Probably not more than one or two.

17 Q. And do you know if there were other
18 workers suspended during those years by other
19 members of the Pneumoconiosis Panel at Rochdale?

20 A. I can't say that I know that.

21 I can say that there probably were.

22 Q. Let me talk about these workers that
23 you do recall suspending from the work in the
24 scheduled areas from Rochdale when you were on the
25 Pneumoconiosis Panel.

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I take it that these workers were suspended because a diagnosis of asbestosis was made in those workers, is that right?

A. I can't get into that depth of, you know, reasoning.

I just don't know, at this moment in time, why they were suspended, but there were a number of reasons why they could have been suspended, and that's the best answer I can give you.

Either they may have had asbestosis or been -- had criteria consistent with the diagnosis of asbestosis.

They may have been suspended for other reasons. In other words, other physical reasons which we considered made them more susceptible.

Q. During the years '63 to '66 that you were on the panel, do you recall seeing any new cases of asbestosis diagnosed at Rochdale?

A. Do I recall? I'm thinking very hard and I'm sure there were.

But I, in my own mind, can't picture them, if you know what I mean.

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Q. Let me ask you this: Would it be

3

fair to state that there were cases of asbestosis

4

diagnosed at Rochdale that occurred as a result of

5

asbestos exposure after 1931?

6

A. Definitely.

7

Q. And do you know of any patients who

8

died of asbestosis from exposure at Rochdale after

9

1931?

10

A. Yes.

11

Q. And how many such patients are you

12

aware who died of asbestosis from exposure that

13

they sustained at Rochdale after 1931?

14

MR. WILL: Excuse me.

15

Do you mean was he aware of when he

16

was on the panel or is he aware of now?

17

MR. BROWNSON: That's a good point.

18

Q. Let me ask you this, that you're

19

aware of now.

20

A. How many?

21

Q. Yes.

22

A. Without going back to statistics, I

23

wouldn't like to hazard a guess.

24

Q. Do you know if there were more than

25

three workers who have died from asbestosis as a

1

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2 result of exposure incurred after 1931 at
3 Rochdale?

4 A. Do I know of more than three?

5 Q. Right.

6 A. There were obviously more than three,
7 because otherwise, Richard Doll's epidemiological
8 studies would not have been done, and other
9 mortality studies could not have been done at
10 Rochdale.

11 Q. During the time you were on the
12 Pneumoconiosis Panel from '63 to '66, are you
13 aware of any asbestos death that occurred during
14 that period of time from workers at Rochdale?

15 A. I'm aware there were deaths, yes.

16 Q. During the years you were on the
17 Pneumoconiosis Panel from '63 to '66, did you see
18 lung cancers among workers at Rochdale that you
19 considered to be related to asbestosis?

20 A. That's such a small corridor of time.

21 Q. Right.

22 A. And I subsequently went to work for
23 10 years at Rochdale, that to separate --

24 Q. I know you did.

25 A. -- what I saw on the panel from what

18

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2 I saw when I worked in the company, I find
3 virtually impossible.

4 Q. I'm going to talk in a minute about
5 what you saw during the years that you worked at
6 Turner Brothers. Maybe we'll expand those
7 questions.

8 But let me ask you this: Did you see
9 any, during the years you were on the
10 Pneumoconiosis Panel, did you see any cases of
11 mesothelioma from workers at Rochdale?

12 A. At Rochdale?

13 Q. Yes.

14 A. I can say no.

15 Q. How about from other asbestos plants?

16 A. I can answer yes to that.

17 Q. And what cases of mesothelioma did
18 you see arising among workers in asbestos plants
19 when you were on the Pneumoconiosis Panel from '63
20 to '66?

21 A. I can recollect seeing my very first
22 case of pleural mesothelioma in that period.

23 And, as far as I'm aware, I probably
24 saw personally at least one other case.

25 Q. Was this a pleural or a peritoneal

1

2 mesothelioma?

3

4 A. I believe they were probably both
5 pleural.

6

7 Q. And do you know what work history the
8 two workers had who had the pleural mesotheliomas
9 that you saw when you were on the panel from '63
10 to '66?

11

12 A. I can't tell you about the other one,
13 if there were any others, I can't tell you about
14 those.

15

16 But I do certainly know about the
17 first one, because again, that was my first and
18 I'll always remember that case.

19

20 And --

21

22 Q. What do you recall about that case?

23

24 A. He was a very unusual case because he
25 worked at Ferodo, which was a brake lining
26 manufacturing or friction materials company,
27 perhaps, I should call it, also belonging to the
28 Turner and Newall organization.

29

30 And this particular man had worked
31 there for a long time and was the first case of
32 mesothelioma, or I believe almost, of
33 asbestos-related disease, that had occurred from

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2 that particular plant.

3 Q. You mentioned earlier that there were
4 these three diagnostic criteria for asbestosis
5 that you used from '63 to '66 when you were on the
6 panel.

7 And as I understand them, they were a
8 crepitant rales, number one, number two was
9 findings on x-ray, and number three was a history,
10 occupational history of asbestos.

11 And I am --

12 A. I don't remember whether we, at that
13 time, also looked at lung pulmonary function to
14 see whether there were changes of -- restricted
15 changes in pulmonary function, but we certainly
16 did in some cases, do have pulmonary function
17 tests done.

18 Q. So you recall, during the year '63 to
19 '66, you were doing pulmonary function tests on
20 asbestos-exposed workers?

21 A. Only if indicated.

22 Q. What were you looking for at that
23 time, restrictive?

24 A. Restrictive changes and a reduction
25 in the diffusing capacity.

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Q. And what would indicate to you that a pulmonary function test was in order during those years?

A. I guess if there was any doubt about the diagnostic criteria; in other words, if we felt that the radiological changes were minimal, were absent and yet some of the other criteria were present, we may have wanted to do some pulmonary function test, just to give us another method of assessing the individual's impairment, basically.

Q. Do you remember suspending any workers from Rochdale while you were on the panel from '63 to '66 as a result of a result of pulmonary function deficit?

A. No.

Q. Do you remember any workers from Rochdale during those years --

A. I beg your pardon?

Q. Okay.

A. Let me give you -- I think, you know, let me explain something to you.

People who were suspended, the individual did not necessarily have to stop

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working.

Q. No, I understand that.

As I understand it, he was suspended from working in a scheduled area, is that right?

A. But he could refuse, he could go on working if he refused to be suspended.

Q. Oh, okay.

A. It wasn't an absolute suspension. That is one thing, however, and in those people who we suspended, we always advised them to put in a claim for asbestosis.

And in order to get asbestosis, they had to appear before a Pneumoconiosis Medical Board consisting of two members of the panel.

And when they were boarded, when they came -- and they weren't boarded at Rochdale, they were brought into Manchester for boarding.

When they had the board, at that time, we would do a spirometry on them. We would also x-ray them again.

So when they were seen in Manchester, they had a more thorough examination and that included a test of lung function.

And what we were looking for there in

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2 an asbestosis case was restrictive defect.

3 However, we were also looking for any
4 other pulmonary defect, because under our
5 regulations, somebody who had an aggravating
6 factor, had asbestosis, but also had some other
7 aggravating factor that contributed to the
8 disablement, and wouldn't have done so had they
9 not had the asbestosis.

10 That was added on as a supplementary
11 rating, and that was often based upon the finding
12 of lung function of concomitant construction.

13 Q. Let me see if I have got this
14 straight. You'll have to bear with me.

15 As a member of the Pneumoconiosis
16 Panel from '63 to '66, you could recommend
17 suspension of a worker from a scheduled area at
18 Rochdale, and that worker could choose to accept
19 that or not?

20 A. Correct.

21 Q. But you would also recommend, if one
22 of you recommended suspension, that the worker put
23 in a claim for compensation?

24 A. Correct.

25 Q. And in your experience, when you

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2 recommended suspension of a worker at Rochdale for
3 asbestosis, did those workers then make claims for
4 compensation?

5 A. Some did and some did not.

6 Q. And of those who did, they then would
7 have to go to Manchester and appear before two
8 members of the Pneumoconiosis Panel?

9 A. Who constituted a board.

10 Q. Who constituted a board.

11 And that is what you called being
12 boarded?

13 A. Right.

14 Q. And at that time the worker appeared
15 before the two members of the panel on this board,
16 and he would again be examined?

17 A. Correct.

18 And the two members of the board
19 examining that person would probably not be the
20 same, not have -- one of the persons that
21 originally suspended them and seen them would not
22 be a member of that board.

23 It would be two other members of the
24 panel.

25 Q. Do you recall being a member of one

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2 of those board panels at Manchester for the
3 Rochdale workers?

4 A. Oh, yes.

5 Q. And on occasions, when you were a
6 member of that board panel, or a board panel from
7 '63 to '66, do you recall doing spirometry or
8 pulmonary function testing on some of the Rochdale
9 workers in connection with their compensation
10 claim?

11 A. That is where I have difficulty.

12 I can't answer that, other than the
13 spirometry that was done when they were boarded.

14 Q. So you recall that spirometry was
15 done when they were boarded; you just can't recall
16 whether you did it or not yourself?

17 A. No, I'm saying, I can't recall going
18 on and doing a whole battery of lung function
19 test. Spirometry was going on.

20 Q. You recall doing the spirometry?

21 A. Yes, we did not have facilities for
22 doing any more than that.

23 Q. Okay, now I'm clear.

24 Do you recall recommending or
25 granting, whatever your powers were, compensation

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

-----x
IN RE: ASBESTOS PRODUCTS LIABILITY Civil
LITIGATION (NO. VI) MDL 875
-----x

This Document Relates to:
UNITED STATES DISTRICT COURT
FIFTH DIVISION
DISTRICT OF MINNESOTA

-----x
CONWED CORPORATION,
Plaintiff, 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.

-----x
October 18, 1994
HILTON C. LEWINSOHN (Cont'd)



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Q. Let me put the question to you then,
3 and I'll ask you to explain it to me, which would
4 be better.

5

How would this compensation for
6 aggravation of a pulmonary condition work when you
7 sat on that board from '63 to '66?

8

A. It's a long time ago. But from my
9 recollection, if somebody had asbestosis, and as a
10 result of the examination that we conducted, and
11 the findings on the spirometry, and whatever else
12 we considered, we decided, for example, that the
13 disability was 20 percent, but that he also had
14 evidence of chronic bronchitis, and that the
15 presence of the chronic bronchitis would increase
16 his disability to 30 percent, then he would be
17 given something for that bronchitis as an
18 aggravating factor because it was making his
19 asbestosis worse.

20

Q. I follow you.

21

And this was a function of the
22 Pneumoconiosis Board -;

23

A. Right.

24

Q. Can you give me some examples that
25 you can recall, other than bronchitis, that would

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2 cause aggravation of an asbestosis case that you
3 saw as a member of that board?

4 A. Well, it could work the other way
5 around as well.

6 If somebody had asbestosis, but also
7 was found to have, say, a heart condition, the
8 development of the pulmonary fibrosis would
9 aggravate that heart condition.

10 Q. And would then that worker get
11 some --

12 A. That worker could possibly get some
13 additional benefits because he was worse than he
14 would have been had he not had the asbestosis.

15 Q. So would it be fair to say that, as
16 long as the asbestosis caused a portion of a
17 worker's disability, that other aggravating
18 circumstances could --

19 A. Were taken into account.

20 Q. -- circumstances be aggravated by the
21 asbestosis would increase the disability?

22 A. Yes.

23 Q. And ones you can recall then would
24 be, for example, bronchitis and heart condition?

25 A. Heart conditions.

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Q. Anything else that you can recall?

3

A. Well, yes, things like asthma, any
4 preexisting pneumoconiosis.

5

Say, the man had been a coal miner
6 and there was evidence of a mixed pneumoconiosis.
7 I can't remember too exact.

8

Q. As a general proposition, would it be
9 fair to say that, by the time you were on the
10 Pneumoconiosis Panel from 1963 to 1966, you
11 recognized that asbestosis caused by asbestos
12 exposure could aggravate a number of other
13 pulmonary problems?

14

A. Yes. I would say, that's a
15 reasonable statement.

16

Q. And would it also be fair to say that
17 by the time you were on the Pneumoconiosis Panel
18 in 1963 to 1966, you recognized that it was good
19 practice that men working in the asbestos plant
20 needed to have these qualifying exams before they
21 should be working in that plant?

22

A. Oh, yes, that was recognized in 1931.

23

Q. And that they should have periodic
24 exams during the course of their work in the
25 scheduled areas of the plants?

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A. That was established practice.

3

Q. Let me just make sure I'm clear on
4 what the schedules there were.

5

As I understand it, the factory
6 regulations of 1931 established what these
7 scheduled areas were?

8

A. Well, I don't think they called them
9 scheduled areas, but they sort of established the
10 conditions under which these regulations, to which
11 these regulations apply.

12

Q. Let's take the Turner Brothers
13 Rochdale plant as an example.

14

From 1963 to '66, when you were on
15 the Pneumoconiosis Panel, I take it, there were
16 certain scheduled areas within that plant where
17 the regulations apply.

18

Correct?

19

A. Well, they applied throughout the
20 textile plant because it was where asbestos was
21 being handled in the raw state.

22

It was being opened. It was being
23 braided. It was being woven, spun.

24

All of those were criteria.

25

Q. So would it be fair to say that the

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2 regulations applied wherever the asbestos was
3 being used in the plant?

4 A. In that plant, yes.

5 Q. Right.

6 And would they apply, for example, to
7 the men who were unloading the asbestos as it
8 arrived at the plant?

9 A. Yes.

10 Q. And let's stop there and talk about
11 that a little bit.

12 How would the asbestos arrive at the
13 Rochdale plant?

14 A. When?

15 Q. From '63 to '66, when you were on the
16 Pneumoconiosis Panel.

17 A. At that time, the fiber was shipped
18 in burlap bags, Hessian bags, as we called them.

19 And they would officially, all
20 asbestos was imported -- Rochdale used largely
21 chrysotile from Rhodesia, some chrysotile from
22 Canada, but most of the chrysotile from Rhodesia.

23 This would come in these bags which
24 were handled at the docks. They were just loose
25 bags.

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Apparently, in those days, they were useful as ballasts, so that when ships were latent to bring the asbestos fibers from whichever country was exporting them, they could -- the bags could be placed all over the ship's hull as ballasts.

They were handled on the docks with men by hooks. They would plunge their hooks into the bags and then sling them onto the ships.

And they would plunge the hooks onto the bags and unload them from the ships.

And then they would pluck their hooks into the bags and put them on trucks or whatever, rail cars, and they would arrive at the plant with holes in them, and with fiber spilling out of them.

And they really weren't a pretty sight at that period in time.

Q. So I'm trying to stick in this period 1963 to 1966, and I realize it's hard for you to distinguish that period.

A. Well, I'm talking about that period.

Q. So during that period of time, from 1963 to 1966, the asbestos would arrive at the

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Lewinsohn

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2 Rochdale plant by truck or rail?

3 A. Yes.

4 Q. And first of all, was it a truck or
5 was it rail?

6 A. I don't remember.

7 Q. So a truck or rail, it would arrive
8 at the plant, and it would be packed in these
9 burlap Hessian bags.

10 And what were they, about 100 pound
11 bags?

12 A. I don't know what they weighed. I
13 can't tell you. I don't remember.

14 Q. So the fiber would be packed in these
15 bags and arrive at Rochdale, and Rochdale workers
16 would have to unload the bags of asbestos fiber
17 out of the truck or rail car, I take it, and bring
18 them into the plant?

19 A. Yes, there was a big hoist in the
20 plant, and at one time, the trucks actually used
21 to drive into the hoist.

22 This wasn't in 1963 to 1966. This
23 was 1963 to '66.

24 I'm not sure how they got the bags
25 into the plants, because I wasn't working at that

1 time there, but I saw the bags there.

2 Q. In any event, workers at Rochdale
3 would have to unload the bags off the truck or the
4 train in some physical fashion?
5

6 A. Yes.

7 Q. Are you telling us that the asbestos
8 regulations applied to the workers doing that
9 unloading?

10 A. Yes.

11 Q. And in your experience, from what you
12 saw, those bags they had these holes in them, and
13 you say they were not a pretty sight.

14 Why is that, because they were broken
15 open?

16 A. They were often damaged and finer
17 fiber would be coming out of them.

18 Q. And did you observe the damaged bags
19 being unloaded?

20 A. Not in that period of time.

21 Q. Let me jump ahead to a later period
22 of time, after you began working for Turner
23 Brothers.

24 Would you observe the bags, damaged
25 bags at Turner Brothers being unloaded?

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A. Well, I'm trying to think. And I think, by the time I started working for Turner Brothers, they were -- you know, I think there were still bags coming in.

6

Whether I actually saw them being unloaded myself, I don't remember.

8

Q. Let me ask you this.

9

At the time you were on the Pneumoconiosis Panel, from '63 to '66, did you recognize that handling, that workers handling damaged bags of asbestos coming into the plant, could be exposed to asbestos?

14

A. Yes, those workers the were handling. They were covered under those regulations. They were handling the raw material.

17

Q. Do you know if the regulations, during that time period, '63 to '66, would have covered those workers if the bags were not damaged; in other words, if they were just unloading undamaged bags?

22

A. I guess, as with all regulations, there is always some room for interpretation.

24

As far as I'm aware, at Rochdale, they would have been brought into the scheme for

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2 medical examination and been seen by the panel.

3 I can only speak for that.

4 Q. Are you aware of any, and I'll
5 broaden this question to any time from '63 up
6 after '66, when you worked at Turner Brothers.

7 From 1966, until you left Turner
8 Brothers, are you aware of any air measurements of
9 asbestos fiber levels at the Rochdale plant in the
10 area where bags were being unloaded?

11 A. The air measurements were made
12 throughout the plant at all areas where fiber was
13 being -- where fiber could be generated to the
14 air.

15 Q. Do you know when those measurements
16 began?

17 A. Oh, dear. I did know precisely, but
18 sitting here like this, without anything in front
19 of me, I can't tell you.

20 Except to say that they certainly
21 began a long time before I ever went there.

22 Q. And they also began before 1963?

23 A. Yes. What would have changed
24 possibly is the method of counting because
25 measurements may go back in time.

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Lewinsohn

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In fact, they had described in lots of the literature about Rochdale.

4

5

6

Q. And at the time, let's take the time you began at Turner Brothers, 1963-'66, '59, that time.

7

8

I take it, air measurements were being made at the plant in Rochdale?

9

10

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14

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A. They were.

Q. Correct?

A. Yes.

Q. And do you know if they were being made at that time in the area where workers were unloading bags of asbestos off the trucks or the train cars?

A. To the best of my recollection, yes.

Q. And who was taking the air measurements at that time in 1966?

A. We had a -- in 1966?

Q. Right.

A. There was a department known as the Health Physics Department, under the supervision of Dr. Holmes, Steve Holmes.

And his technicians would be taking the measurements.

1

2

Q. Is Dr. Holmes of Turner Brothers?

3

A. Dr. Holmes of Turner Brothers, Ph.D.

4

5

6

7

Q. Do you know, as of that time, 1966, let's take that time, because maybe it will stick out in your mind, because that's when you began working for Turner Brothers.

8

9

10

As of 1966, do you know what the unit of measurement was that was used for those air measurements?

11

12

A. By 1966, they were doing fiber

counts.

13

Q. Were they doing --

14

A. Fibers per millimeter.

15

16

Q. What fibers were they counting, PCC? Do you know?

17

A. You mean --

18

19

Q. Let me ask you this: How was the fiber defined?

20

21

A. A fiber was defined as having a 3 to 1 length to diameter aspect ratio.

22

23

Q. And did it have to be greater than any certain length or diameter?

24

25

A. That I don't remember. I don't remember.

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2

Q. You remember the 3 to 1 length aspect

3

ratio?

4

A. Right.

5

Q. What technique was used in '66, do

6

you recall, to count the fibers?

7

A. It was a microscopic technique.

8

Q. Do you recall if they used the

9

membrane filter at that time, or the membrane

10

impinger?

11

A. They were using membrane filters.

12

Q. And --

13

A. The membrane filter technique was

14

very much developed at Rochdale.

15

Q. And would it be fair to say that Dr.

16

Holmes was in charge of that?

3

17

A. Yes.

18

Q. Do you know when he developed or when

19

he began using the membrane filter technique to

20

count asbestos fibers at Rochdale?

21

A. I could only say in the early to

22

mid-sixties.

23

I don't know. That's my guess. I

24

wouldn't like to guess.

25

Q. As far as you recall, by the time you

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2 began work at Turner Brothers in 1966, was that
3 technique in use for counting asbestos fibers at
4 Rochdale?

5 A. It was in use at Rochdale, yes.

6 Q. And then they were analyzed
7 microscopically, I take it?

8 A. Yes.

9 Q. And again, did Dr. Holmes do this?

10 A. He was in charge of it.

11 Q. Do you know the microscopy technique
12 that was used?

13 A. There were always discussions about
14 that.

15 I believe that they used a grid
16 counting method, if that is what you want to know.

17 Q. They used a grid counting method.

18 Do you know what magnification was
19 used?

20 A. No, I'm not an industrial
21 hydrogenist.

22 If I did know, I don't remember.

23 Q. Do you have any recollection, as you
24 sit here today, what the asbestos fiber levels
25 were at or about 1966 in areas where the asbestos

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was unloaded into the plant?

A. Well, that probably would not have been -- again, I doubt it would have been reported as unloading.

It would have been grouped under a heading in all that took place in what is known as the fiberizing area and, you know, the bags would -- or in the warehouse.

Q. Let me ask you this: What I am trying to get at is -- I don't mean to cut you off.

I'm trying to determine if you recall what the fiber levels were at or about 1966 in that time period.

A. Where?

Q. Before the asbestos was fiberized, in other words, up to the point it was fiberized.

A. Not specifically, no.

Q. Do you recall generally what the levels were within a range in that area, before they were fiberized?

A. No.

Q. Do you recall them being less than 10 fibers per cubic centimeter?

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A. I don't recall.

3

Q. Let me ask you this: I said I'd ask you one more question, let me just finish this train of thought.

6

At or about 1966, air measurements, fiber level air measurements, were taken at Rochdale, as you understand it, throughout the process, correct?

10

A. Yes.

11

Q. Do you have any recollection, as you sit here today, of any of those measurements at any step along the line?

14

A. Yes.

15

Q. Which ones do you recall?

16

A. I can probably -- I can recall that, in the carting department areas, there would be levels which ranged between 10 fibers per cc up to 20 or 30 fibers per cc on occasion.

20

Q. That would be in the carting department?

22

A. Right.

23

Q. And you'll have to forgive me. I don't know what the terms are for the process.

25

But I understand the asbestos was

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Lewinsohn

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2 brought into the plant and was fiberized by some
3 method.

4 What was the original method used?

5 A. The fibers were dumped into a hasher.

6 By the time I went there, in '66,
7 this was done with exhaust ventilation over the
8 hopper, and it was dumped into a big drum, which
9 was totally enclosed, where it was just rumbled
10 around inside the drum.

11 I think they added some sort of a
12 mineral oil to it at one time, just to help to get
13 the fibers to break up.

14 Depending upon how much they wanted
15 the fibers opened, so they would regulate the
16 speed and the length of time that the drum
17 resolved.

18 And it would then go from the drum,
19 after having been preliminarily opened into-- I
20 forget what they called the machines -- but other
21 machines that -- like hammer mills.

22 Q. Hammer mills?

23 A. Right, which opened them further.

24 Then once they were opened to the
25 full extent that they wanted them open, they were

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2 rebagged.

3 At that time, the bags that we used
4 for internal use were polypropene bags with nylon
5 impregnated, and they had nylon zip fasteners, so
6 that they were, for all intents and purposes,
7 impervious.

8 These bags were then taken to the
9 back of the carting engine, and then again, were
10 manually opened and the material dumped into the
11 back of the cart.

12 Q. And the carting engine is, generally
13 speaking, what sort of machine?

14 A. Well, the carting engine takes the
15 partially opened fibers, and then parses it
16 through rollers, two rollers, which are moving in
17 opposite directions.

18 One is going that way, and the other
19 is going that way, and they have got needles on
20 them.

21 And it teases the fibers and layers
22 all of the fibers in one direction.

23 Q. Okay.

24 A. And sometimes there would be more
25 than one set of these rollers, depending upon how

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2 much they wanted to open and fluff up this fiber.

3 And then it came off at the end of
4 the car as a fleece, which is called a -- I forget
5 what they call the fleece.

6 And then it could be parsed through
7 dividers and wound onto spools in thin strips,
8 called sliver.

9 Q. At or around the time you began at
10 Turner Brothers, were these operations done under
11 ventilation?

12 In other words, was there ventilation
13 equipment at the point of operation?

14 A. Yes, there was ventilation equipment
15 there.

16 But that was constantly being
17 improved upon, because it was recognized that this
18 was a difficult process from the dust control
19 point of view.

20 So all of the time that I was there,
21 almost weekly, something different was added to
22 try to improve the ventilation.

23 Q. So during the time that you were at
24 Turner Brothers, and quickly, what time period is
25 that, '66 to what?

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A. '76.

Q. There was constant updating and improvement of the ventilation equipment in the dusty areas?

A. All the time.

Q. And do you know if are you familiar with a type of equipment known as a cyclone?

A. Yes, I've heard of a cyclone.

Q. Do you know if those were used at Turner Brothers?

A. I think those are more useful for ambient air and environmental type measurements than for uses in a plant environment.

MR. GERSON: Could we just take a break?

(Luncheon recess 12:55 p.m.)

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(Afternoon Session: 1:30 p.m.)

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BY MR. BROWNSON:

4

Q. Let me take you back, Doctor, to at
5 or about 1966, when you began at Turner Brothers.

6

And in the Rochdale plant, you had
7 mentioned that air measurements, air fiber
8 measurements that you recall were in the 20 to 50
9 fiber cubic centimeter range, and those were in
10 the carting room, as you recall it?

11

A. I think I said they ranged from 8 to
12 10 up to 20 to 30.

13

I can recall seeing figures like
14 that.

15

Q. Do you recall if you mentioned that
16 was in the carting room or at the carting machine?

17

A. In the cart room by the cart -- well,
18 they tested by the carting engines where the
19 people worked.

20

Q. And do you know if the ventilation
21 was in operation at the time they were doing those
22 tests?

23

A. It should have been.

24

Q. And do you know if those air fiber
25 level measurements were attempted to approximate

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2 the fiber level in the air that the workers would
3 breathe?

4 A. These were personal samples.

5 Q. And by personal samples, you mean
6 they actually put a sample on the man's lapel?

7 A. Correct.

8 Q. And so it was an effort to get the
9 sample at or near the man's breathing zone?

10 A. Correct.

11 Q. Do you remember if, over time, over
12 the 10 years you were at Turner Brothers from '66
13 to '76, if these air fiber measurements were done
14 continuously over that period of time?

15 A. Yes, there was an ongoing monitoring
16 program.

17 Q. Do you know, was this required by law
18 in Britain at that time, or was it something that
19 Turner Brothers did on their own?

20 A. No, it wasn't required by law.

21 Q. Again, taking the area of the carting
22 machine, do you know how those air fiber
23 measurements progressed over time?

24 In other words, did they always stay
25 at about the same level, or were improvements made

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2 and they decreased over time?

3 A. Oh, they came down over time. Over
4 the 10 years I was there, they came down.

5 Q. Let's go up to, at or around 1976,
6 when you left Turner Brothers, at that point in
7 time, do you recall what those levels would have
8 been?

9 A. By that time, at Rochdale, I would
10 say, on most of the carting engines, they got the
11 levels down to below 5.

12 Sometimes -- when I say below 5, I
13 can't tell you how much lower, but below 5.

14 Q. Do you know if 5 fibers per cc was a
15 standard in Britain for asbestos in air?

16 A. There was never any promulgated
17 standard in Britain.

18 Q. Was there any sort of recommended
19 level?

20 A. At what point in time?

21 Q. Let's take 1966.

22 A. In 1966, as far as I remember, the
23 factory inspectorates were using the American
24 Conference of Governmental Industrial Hygiene
25 Standard, which was expressed in mills of

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2 particles per cubic foot.

3

4 And I think, in 1966, that was 12
5 mill particles per cubic foot as measured by the
6 impinger technique.

6

7 Q. But at the same time, as I understand
8 it, Turner Brothers were doing their own
9 measurements using the membrane filter, and 5
10 percent per cc, as opposed to mills of particles
11 per cubic foot?

11

A. That's correct.

12

13 Q. And who was it who adopted or used
14 the ACGIH standard in Britain in 1966?

14

A. The factory inspectorate.

15

16 Q. And do you know, was the factory
17 inspectorate doing their own air measurement in
18 asbestos plants at or around 1966?

18

19 A. I don't know. I assume. This is an
20 assumption.

20

MR. WILL: Don't assume.

21

A. I assume, but I don't know.

22

MR. WILL: Don't guess.

23

24 Q. When you were with the Pneumoconiosis
25 Panel in 1963 to '66, do you recall there being
26 industrial hygienists employed by the factory

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inspectorate employed by the asbestos plants?

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A. The factory inspectorate had an industrial hydrogen branch.

5

6

I don't recollect them -- what period of time are you talking about now?

7

Q. '63 to '66.

8

9

A. I wouldn't know where they went, but there was an industrial hygiene branch.

10

11

12

Q. Let me now move ahead to the time period of 1966 to 19'76, when you were with Turner Brothers Asbestos Company.

13

14

When you began with them, what was your position with the company?

15

A. My title was medical officer.

16

17

Q. Were you the chief or head medical officer for Turner Brothers --

18

19

20

A. Well, I was the only full-time medical officer, but I didn't have the title of chief medical officer at that time.

21

22

Q. So were you the de facto chief, but without the title?

23

A. If you like.

24

25

Q. At that time, what facilities did Turner Brothers have that you were concerned with

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2 in your duties as medical officer?

3 A. You mean what type of facilities?

4 Q. Let me rephrase the question.

5 In 1966, I assume Turner Brothers had
6 more than one factory or facility, correct?

7 A. Using facility as factory?

8 Q. Right. Let's start with that.

9 What factories did Turner Brothers
10 have in '66?

11 A. They were the two factories I've
12 already mentioned to you, Rochdale and Hindley
13 Green.

14 There was a glass fiber plant in
15 northern Ireland in Dungannon, in Northern
16 Ireland.

17 Essentially that was it -- sorry,
18 there was a small cotton mill in a town called
19 Leigh.

20 Q. As medical officer, were you
21 concerned with, or did your duties require you to
22 have activities in all four of the plants?

23 A. Yes.

24 Q. And very briefly, on the cotton mill
25 in Leigh, did you see, during the time you were

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with Turner Brothers from '66 to '76, did you see
3 any sort of pneumoconiosis, byssinosis or anything
4 coming out of that cotton mill?

5

A. As far as I'm aware, there was no
6 byssinosis diagnosed at that mill during the
7 period I was there.

8

Q. Do you know had there been in prior
9 years?

10

A. I don't know.

11

6 Q. And this glass plant in Northern
12 Ireland, was there any sort of pneumoconiosis or
13 fibrosis among those workers during the years you
14 were at Turner Brothers?

15

A. No.

16

Q. Was there any asbestos used at that
17 plant?

18

A. No.

19

Q. That takes us to the two asbestos
20 factories that Turner Brothers had.

21

Were both of those factories in
22 operation during that 10-year period from '66 to
23 '76?

24

A. Yes.

25

Q. And did you oversee the medical

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condition, if I can use that term, of the workers
3 in those two plants for those 10 years?

4

A. Yes.

5

Q. And was the British factory
6 inspectorate also doing the sorts of duties that
7 you told us that you were doing from '63 to '66?

8

A. The Pneumoconiosis Medical Panel?

9

Q. Right.

10

Did that continue after you became
11 medical director of Turner Brothers?

12

A. Oh, yes.

13

Q. So would it be fair say today that,
14 from '66 to '76, the workers at the Turner
15 Brothers Asbestos plants had the Turner Brothers
16 examinations every other year, and they also had
17 the Pneumoconiosis Panel examinations every
18 alternate year?

19

A. That's correct.

20

Q. And I don't want to go through this
21 all again, but were those the same that they had
22 been during the '63 to '66 time period, in terms
23 of what was being done and what was being looked
24 for, or did that change?

25

A. It changed at Rochdale, basically.

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Q. What was the change at Rochdale?

3

A. The x-rays used to be taken by a
4 mobile van that came and took them.

5

And when I came to Rochdale, we
6 purchased our own equipment, so we took our x-rays
7 on-site with our own equipment.

8

In fact, this was also portable
9 equipment. We tried to take it to Hindley Green.
10 It didn't work out very well.

11

The other thing at Rochdale was that
12 I established a pulmonary function lab on-site
13 that was capable of doing more than just
14 spirometry.

15

Q. What sort of pulmonary function work
16 could you do at that lab?

17

A. We could do lung volumes, and we
18 could do the carbon monoxide diffusing capacity.

19

We also measured the carbon dioxide
20 tension by an indirect method.

21

Q. Over the course of time from '66 to
22 '76, as far as you knew, did the British
23 Pneumoconiosis Panel criteria change for awarding
24 compensation in asbestosis cases, or was it the
25 same as what you told us about earlier?

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A. '66 to '76?

3

Q. Right.

4

A. I think it stayed essentially the

5

same.

6

Q. As far as you were concerned, from

7

the time period '66 to '76, were the diagnostic

8

criteria for determining whether a man should be

9

suspended or not, or recommended that he be

10

suspended or not, the same or did those change?

11

A. I think those stayed essentially the

12

same as well.

13

Q. At the Rochdale plant, from '66 to

14

'76, did Turner Brothers continue to use the

15

Rhodesia and the Canadian chrysotile?

16

A. Well, as you know, Rhodesia

17

proclaimed the unilateral declaration of

18

independence and there was a trade embargo and

19

sanctions imposed on Rhodesia.

20

And so the Rhodesian fiber was no

21

longer available after about '66 or '67, whenever

22

that occurred.

23

So that the amount of fiber that then

24

came from Canada increased after the inventory of

25

Rhodesia fiber was used up.

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Q. Would it be fair to say that, at the
3 time of the boycott on trade with Rhodesia, or
4 after that time, the fiber that was used at
5 Rochdale all came from Canada?

6

A. Some of it. Not all from Canada.
7 Some of it, I believe, came from Swasea. But the
8 majority was from Canada.

9

Q. Let's take the time period at or
10 around 1966, when you began with Turner Brothers.

11

What was the volume of asbestos that
12 was being used at the Rochdale plants, in rough
13 figures?

14

A. I don't know.

15

Q. Did that pretty much stay the same
16 over years or did it increase or go down in the
17 years that you were there up until '76?

18

A. It's difficult to answer that because
19 it obviously fluctuated with economic cycles.

20

Q. And where did the chrysotile come
21 from that was used at Rochdale?

22

A. I guess some of it came from Casio.
23 Some may have come from the Bell mines or they may
24 have come from other companies, but most of them,
25 I think, were Casio or Bell mines.

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Q. Weren't the Bell mines owned by

3

Turner and Newall at that time?

4

A. Yes.

5

Q. But the Rochdale plant didn't

6

necessarily have to buy all of their chrysotile

7

from Bell, they could buy from other places?

8

A. Sure.

9

Q. Do you know if the Rochdale plant

10

ever used Union Carbide asbestos during the years

11

you were there?

12

A. Never saw it.

13

Q. Let me ask you this. I'm jumping

14

ahead a little bit here, but when was the first

15

time you heard of Calidria asbestos?

16

A. That's again a difficult question to

17

answer. But with certainty, when I joined Union

18

Carbide in '82. I can't tell you with certainty.

19

whether I heard of it before then.

20

Q. Let me go back to the time that you

21

were medical officer at Turner and Newall from '66

22

to '76.

23

During that period of time, what

24

portion of your work or your time would be taken

25

up with asbestos-related disease work?

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A. Most of my time.

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Q. In other words, I'm just curious, were there other things you did, let's say if a worker had an injury or got his finger caught in a machine?

A. We had a dispensary, first aid department, where they treated those things. They would call me in if they needed my business but most of our injuries were sent off to the local hospital right away, which was only a mile down the road, so we didn't do anything major on our premises.

But to answer your question, I was involved in all sorts of things that an occupational physician gets involved in, giving advice about noise and hearing loss.

We had a glass fiber division at Hindley Green where, as you know, glass fiber was prone to cause itching and dermatitis. So I was involved in all of the fields of occupational medicine that a medical officer becomes involved in.

However, our major hazard was asbestos. And I suspect most of the largest

1
2 proportion of my time involved with matters
3 pertaining to asbestos.

4 Q. What did the medical department at
5 Turner Brothers consist of during those years '66
6 to '76 in addition to yourself? Were there others
7 or was it just you?

8 A. Well, when I went there, there was a
9 Dr. John Knox was still around as a consultant to
10 Turner and Newall, and he used to come in
11 periodically just to chat, talk about things. He
12 didn't do any work in the department.

13 And after I guess a few years, I'm
14 not sure how long it was, I was -- I had an
15 assistant for a short period of time. First full
16 time, then part time, then he quit and went into
17 practice in the area. So most of the time I was
18 single-handed.

19 There was a nursing sister,
20 registered nurse in charge of the medical
21 department in Rochdale and one at Hindley Green.
22 And at Rochdale, I believe there was another
23 registered nurse and then there were first aid
24 attendants. And I had a x-ray technician and a
25 lung function technician.

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Q. Was there also a medical library of
3 any sort there?

4

A. There was not a medical library. The
5 company had on the site its research and
6 development department, and in the research and
7 development department there was a scientific
8 library. And in the scientific library they used
9 to review the literature, scientific and medical
10 literature, and provide me with reprints, et
11 cetera, from that literature.

12

Q. And do you know if they subscribed to
13 medical journals at that library during the years
14 that you were there?

15

A. To the best of my recollection, they
16 subscribed to some medical journals.

17

Q. Do you know if one of the journals
18 that they subscribed to was the British Medical
19 Journal?

20

A. I really don't know because I would
21 have got the British Medical Journal myself.

22

Q. At the time you began as medical
23 officer at Turner Brothers Asbestos in 1966, did
24 you make any effort to go back and review prior
25 cases of asbestosis or other diseases that had

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2 arisen at Turner Brothers to familiarize yourself
3 with the situation?

4 A. You mean case by case?

5 Q. Well, I'm not sure how you might have
6 done it. In any sense.

7 A. When I went to Turner Brothers, Dr.
8 Knox brought me up to date with the work of
9 Richard Doll and the cohorts that had been
10 established and reported in the literature, and
11 explained to me how those had been -- how the
12 cohorts had been developed and what the findings
13 were.

14 Q. Did you become familiar at that time
15 with some of the old cases of asbestosis with
16 Turner Brothers, such as -- I've gone through the
17 literature and I've pulled out this case with this
18 Mrs. Kershaw back in the 20's that was reported by
19 Dr. Cook.

20 A. Well, I knew about Cook's case.

21 Q. That was Nellie Kershaw?

22 A. Well, I discovered eventually that
23 that was Nellie Kershaw. I don't remember all of
24 the details. If you have anything there that
25 describes it --

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Q. Actually, I went and pulled the paper, which was a paper in the British Medical Journal in 1924 called "Fibroses of the Lungs Due to the Inhalation of Asbestos Dust," by W.E. Cooke, and now you've got it there.

I'm just curious if as part of your your work or investigation or whatever you want to call it after you became medical director, if you went back and reviewed some of this old material arising out of the Turner Brothers works.

A. No, I didn't actually go back and do case reviews.

Q. Do you remember when this particular case came to your attention?

A. I'm trying to remember where I read about it, but I read a review, and I'm not sure who had published it either, in which they recounted the history of the development of the recognition of asbestosis. And in that review, which was shortly after I joined the company, I read about these various cases, the Montgomery and Cooke and Selher's cases, which were the early cases described.

I never went back personally and

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researched those cases.

Q. As I understand it -- let me back up and just ask you this.

Is it fair to say that at least when you began as medical officer at Turner Brothers in 1966, you did make some investigation into the background of cases at the plant?

And I understand you didn't go case by case and look at them all, but you did do some checking, you spoke to Dr. Knox?

A. Yes. I brought myself up to date and learned what was going on.

MR. BROWNSON: I suppose for the record, let's just mark that since we've been looking at it.

We'll mark this as Lewinsohn 2.

(Whereupon, medical case from Dr. Cooke marked Lewisohn Exhibit 2 for identification as of this date.)

MR. BROWNSON: Just for the record, I had the reporter mark as Lewinsohn deposition Exhibit 2, the medical case from Dr. Cooke we were just looking at in July 26, 1924.

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Q. Now, as I understand it, shortly after you began at Turner Brothers in 1966, there was a study done of workers of the plant for asbestosis; is that correct?

A. Well, as I told you, these cohorts had been established for follow-up, and a study had been published I believe in 1964 in the annals of the New York Academy of Sciences. That was the most recent one that I was aware of.

Q. The cohort presented at the New York Conference in 1964, was this a cohort of Turner workers?

A. Well, the cohorts have been presented the paper that was given I believe by Knox, Holmes, Doll and Hill, was a follow-up of the cohorts that had been established by Dr. Doll in 1955.

Q. This was a cohort from Rochdale?

A. Yes.

Q. And what was being presented in 1964 at the conference of the New York Academy of Sciences was a follow-up of that same cohort that Doll had looked at, or was this new additional people involved?

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A. Well, you know, a cohort, the cohort is a living thing, and it wasn't one cohort. There were different cohorts being followed.

And what they were looking at was to see whether there were differences in the instance or in the causes of death. These were mortality studies. The incidents in the causes of death between people who had entered and worked in that factory at different periods of time.

So there was the one cohort that consisted of people who had worked more than 10 years prior to 1931; people who had worked for more than 10 years after 1931. That type of comparison, to show that the incidents of asbestosis had declined. And in the 1964 paper, I believe, the inference was that the incidents of lung cancer in persons first exposed after 1931 had declined to the extent where it was no greater than for the general population.

Q. Let me ask you this: Just to summarize this, at the 1964 conference sponsored by the New York Academy of Sciences here in New York City where we're sitting today, there was a paper presented concerning a cohort or group of

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2 workers from the Turner Brothers Rochdale plant,
3 correct?

4

A. Correct.

5

Q. And that conference, of course, was
6 the conference that was chaired by Dr. Irving
7 Selikoff and which was then published in the
8 proceedings of New York Academy of Sciences or the
9 proceedings of which were published in the annals
10 of New York Academy of Sciences, correct?

11

A. As a supplement.

12

Q. As I understand it, though, the
13 British Occupational Hygiene Society reviewed
14 clinical and x-ray data on certain Turner Brothers
15 employees who were employed in 1966.

16

And my question is was this a
17 different group or is that the same workers?

18

A. Different. And it may have included
19 some of the same workers, but this was not a
20 mortality. The British Occupational Hygiene
21 Society did not do a mortality, they did a
22 morbidity study.

23

Q. So they were just looking at the
24 workers employed, a group of the workers employed
25 at the factory at Rochdale at the time in 1966?

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A. Yes. What they did was -- yes, they were looking at a group of workers that met certain selection criteria with regard to exposure, and that were I guess not necessarily currently employed, but whose records were available for examination.

Q. And as I understand it, at the time you began as medical officer in 1966 you did some follow-up surveillance of this group of workers, would that be correct?

A. No.

Q. Let me work backwards.

I've got a paper here that you authored, entitled "The Medical Surveillance of Asbestos Workers," and it has even got a nice photo of you on the front here.

MR. BROWNSON: We'll mark that as Exhibit 3 and we'll work from there.

(Whereupon, paper entitled "Medical Surveillance of Asbestos Workers" marked Lewinsohn Exhibit 3 for identification as of this date.)

MR. BROWNSON: We've now marked as Exhibit 3 this paper entitled "Medical

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2

Surveillance of Asbestos Workers.

3

Q. You're familiar with that paper, I

4

take it?

5

A. Yes, I am.

6

Q. It lists you as chief medical

7

officer, Turner Brothers Asbestos Company Limited,

8

Rochdale. And this was published in what journal?

9

A. I believe in the Journal of the Royal

10

Society of Health. Public Health.

11

Q. And --

12

A. Royal Society of Public Health.

13

Q. It was published in 1972?

14

A. 1972.

15

Q. What I am trying to figure out, and I

16

guess this is what I was trying to ask you before,

17

what group of workers are being reported upon in

18

this paper?

19

A. The people being reported upon in

20

this paper were current employees of Turner

21

Brothers Asbestos Company in Rochdale at that

22

time, which was in 1972.

23

If I may just take one minute.

24

Q. Sure take a look.

25

A. Let me just take a look and see.

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A. I would say that the report had reported on here were those that had passed through the medical department from May 1967 through -- I can't give you a definite end date, but 1972 sometime. Because that's what I am inferring from the information on page -- I can't see the page number, if there is one. Page 73 up in the top left-hand corner where the staple is.

10

On page 73, in 1967 the company purchased its own x-ray unit, and since then all new employees have been x-rayed during the first week of employment, working in asbestos areas are now x-rayed annually, and it goes on to describe what is done.

16

So therefore, in 1966 the company decided to equip a lung function lab which was operating by May '67, and I believe that this now, that the number reported on here are the numbers of people that were seen in that period of time.

21

Q. '67 to '72?

22

A. Yes. On the next page it says "preliminary results." Figures 2 and 3 illustrate the incidents of radiological changes in 10 years exposure groups, in 970 males and 317 females

25

1

2 exposed to asbestos.

3

So these were current employees.

4

Q. Right.

5

A. They could well have included some of
6 the people that were studied in the BOHS group of
7 people, but they weren't necessarily the same
8 group of people.

9

Q. That's what I was trying to ask you
10 before.

11

A. There was an overlap.

12

Q. Right. I'm sorry you had to go that
13 long way around, but I had to make that clear to
14 you.

15

The British Occupational Hygiene
16 Society studied a group of workers who were
17 employed, as I understand it, as of 1966, is that
18 correct?

19

A. Again, without looking at the BOHS
20 report to see what their criteria were, I can't
21 say yes or no; all I can answer is that I was not
22 involved in that particular study. Dr. Holmes,
23 Dr. Knox and Dr. Holmes did it. But the records
24 that were reviewed by Dr. Knox were from the
25 medical department at Rochdale and the review was

1

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2 done in 1966.

3 Q. And then your study of workers which
4 are reported in this paper on 1972 may or may not
5 have included some of those people, but what it
6 did include was the people who had been seen in
7 your medical department from about May of '67 to
8 1972?

9 A. Yes. And this is not a good paper.
10 It isn't clear in its description of the
11 population that was studied. That's the clearest
12 I can give you based upon what I'm looking at now.

13 Q. I am just looking for your own
14 recollection --

15 A. Yes.

16 Q. -- of the people who are included in
17 this paper.

18 A. I think that's a fair recollection.

19 Q. As I understand it, Great Britain
20 adopted an asbestos standard in 1970 which for
21 chrysotile was two fibers per cc.

22 Is that correct?

23 A. Not entirely. Britian adopted new
24 regulations in 1969, but there was no standard.
25 The standards that the factory inspectorate would

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2

uphold -- would enforce were published in the

3

separate document which was I believe called Notes

4

for the Guidance.

5

And they didn't carry the force of

6

law. But bearing in mind their origin, the

7

factory inspectorate probably would have been --

8

What's the word I'm looking for?

9

Q. Strongly encouraged.

10

A. Strongly enforced by a court of law

11

or upheld by a court of law.

12

Q. And --

13

A. And those notes for guidance adopted

14

the British Occupation of Hygiene Society's

15

standard, in effect.

16

There was some gray areas.

17

Q. Let me ask you this: The British

18

Occupation Hygiene Society standard that was

19

adopted, as I understand it, had a standard or had

20

a limit or standard or whatever you want to call

21

it, for chrysotile asbestos, is that correct?

22

A. The British Occupational Hygiene

23

published a recommended hygiene standard for

24

chrysotile asbestos in 1968, I think it was, or

25

'69.

11

1

2

Q. Do you remember what that standard

3

was?

4

A. That standard was 105 fibers per cc,

5

which meant when interpreted, that if you worked

6

for 50 years, you could work at 25 fibers per cc

7

to get up to 100 fibers per cc. It was a

8

cumulative dose.

9

Q. Would that also mean if you worked

10

for 10 years, you could have 10 fibers per cc?

11

A. Yes. I mean, that is the way you

12

could interpret it.

13

Q. I'm wondering, did people interpret

14

it that way?

15

A. No, not really.

16

Q. Because I guess the ultimate

17

extension of that is that if you worked for one

18

year you could be exposed to 100 fibers per cc,

19

and certainly nobody considered that reasonable,

20

did they?

21

A. No, that didn't make sense.

22

Basically 50 years was considered a working

23

lifetime.

24

Some people thought that that was too

25

long. Very few people worked in the same job for

1

Lewinsohn

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2 50 years. But nevertheless, 50 years, a working
3 lifetime, two fibers per cc, 100 fibers per cc.

4 Q. What I am trying to do is take you
5 back, and if you can recall this, please tell us.
6 If you don't, please tell us.

7 I am trying to take you back to the
8 time when you were medical officer at Turner
9 Brothers Asbestos. Take the year '69, '70, when
10 this standard was in effect.

11 Was that generally considered at that
12 time to be a practical or de facto or some sort of
13 standard of two fibers per cc, or was it
14 considered something else?

15 MR. WILL: Excuse me. What do you
16 mean by "generally considered"? Did he
17 consider it?

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

19 Q. Let me ask you this.

20 You've told us that the standard by
21 the British Occupational Hygiene Society was 100
22 fibers per cc, which equates to two fibers per cc
23 over a 50-year working lifetime.

24 A. Yes.

25 Q. And is that the way you understood it

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25

at the time?

A. Well, that's the way it was.

Q. And my point is since you've told us that people really by and large weren't working 50 year lifetimes and people weren't exposed to 100 fibers per cc, what I am wondering is what did you consider to be the effect of that standard in terms of a limit that the workers should be at?

Did you just use two fibers per cc or did you use something else?

A. I thought that -- you're talking about my personal opinion?

Q. Yes, back in those years. I thought that two fibers per cc was an achievable standard for most of the industry.

And that based upon experience at Rochdale, which to some extent was not scientifically documented experience but based upon experience at Rochdale, wherein those departments where the levels had always been below two fibers per cc, the incidents of asbestos-related diseases had been, I would say negligible, if not entirely absent. And that was somewhat like the weaving shed.

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So it appeared to me to be a reasonable standard and certainly a lot better than anything that we had officially accepted before.

6

7

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11

12

13

But I did have, and I expressed some doubts at the time, I did have some doubts on the completeness of the study that had been done in terms of the identification of the population and the criteria which were used to determine what was significant evidence of early disease, to relate back to the dust levels that were available and to correlate with those dust levels.

14

15

So it was the best available at the time.

16

Q. Let's do this.

17

18

19

Let's look at the tables that you just referred to in your paper, Exhibit 3. I am looking at figures 2 and 3.

20

21

22

23

They are discussed under the heading of preliminary results in your paper, and what you've done is you've grouped these workers in 10-year exposure groups.

24

A. This is since first exposure.

25

Q. You've got one group of workers zero

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2 to nine, under years since first exposure second
3 group with 10 to 19 years, then 20 to 29 and 30 to
4 39 and 40 to 49, right?

5 A. Yes.

6 Q. Now, what I'm wondering is what is
7 the difference between tables 2 and 3?

8 A. Table 2 is males and table 3 is
9 women.

10 Q. So all other things are equal, in
11 other words?

12 A. Exposure is the common denominator.

13 Q. That is what I was wondering. The
14 workers come from difference parts of the plants,
15 or that sort of thing?

16 A. Well, this isn't divided up by
17 occupation; it's simply by exposure. In fact, an
18 exposure meaning having worked there.

19 Q. Did you use time of employment as
20 your measurement of exposure in preparing these?

21 A. I used years since first exposure.
22 That doesn't mean to say that somebody who worked,
23 who had the years since first exposure had been
24 exposed for nine years, they could have been
25 exposed for one year. But at the time that this

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2 data was collected, it was nine years since that
3 first exposure.

4 They had survived nine years since
5 first exposure.

6 Q. Now I'm confused.

7 Let's take the category of workers in
8 zero to nine years since first exposure.

9 A. Let me explain it to you.

10 Q. I am confused about that.

11 A. If you start Rochdale and you had
12 work of nine years, you had nine years of total
13 exposure and nine years since that total exposure
14 first occurred.

15 But if you worked at Rochdale and you
16 start the same time as someone else who starts at
17 the same time as you on the same date but only
18 works for one year, is only exposed for one year,
19 nine years later is nine years since first
20 exposure.

21 Q. Okay.

22 A. Okay. But not total exposure.

23 Total exposure was one year.

24 Q. So --

25 A. It's in a way a measure of latency

1

2 rather than a measure of exposure.

3

Q. Let's take your first category of
4 workers, and we will look at figure 2 which is I
5 guess the men.

6

A. That's the men.

7

Q. Let's look at figure 2.

8

The men in the first group there of
9 zero to nine years since first exposure. Some of
10 those men might literally have had zero time since
11 first exposure and some might have had nine years;
12 is that the way we'd read that?

13

A. That is the way you've read that.

14

Q. Could we also read that as meaning
15 there is an average exposure length of 4.5, or is
16 it more to the 9 year end or the zero end?

17

A. That I can't tell you because I don't
18 think I did that.

19

Q. Nobody really knows?

20

A. Nobody really knows.

21

Q. Let's look at the five bar graphs
22 shown in that group, figure 2, men zero to nine
23 years since first exposure. The first bar graph
24 we see is normal x-rays?

25

A. Correct.

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Lewinsohn

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3

Q. 90 percent of the men had normal
x-rays, is that what that says?

4

A. That is what that says.

5

6

Q. How come it goes up to 140 percent
instead of 100?

7

8

A. Because there may have been some that
would have been read more than once.

9

Q. Some x-rays read more than once?

10

11

12

A. Right. The number of findings
exceeds the number of subjects, resulting in large
percentage figures.

13

14

15

16

17

Q. That is what I am wondering. If we
look at that first bar graph of normal x-rays,
when it indicates 90 percent, that doesn't
necessarily mean that 90 percent of the men had
normal x-rays?

18

19

A. It means 90 percent of the x-rays
read were normal.

20

21

22

Q. Were normal. My question is what
criteria were you using at that time to determine
if an x-ray was normal?

23

24

25

A. I was using UICC Cincinnati
classification of the radiographic appearances of
pneumoconioses.

13

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Q. Do you recall what that

3

classification was --

4

A. That is very simple.

5

Q. -- in those years?

6

A. That is very similar now to the

7

current IOL classification. It was the early days

8

of that classification.

9

Q. If pleural thickening was seen on an

10

x-ray under that classification, would that be

11

classified as a normal or abnormal x-ray?

12

A. Pleural thickening was actually --

13

there were three categories of pleural thickening.

14

Inconsistent with asbestos exposure, consistent

15

with asbestos exposure. There were two

16

categories. They are barred separately in the

17

graph. There are separate bars for pleural

18

thickening.

19

Q. See, here is what I can't figure out.

20

I am looking at the key here to the table to the

21

bar graphs here. The first one in the graph is

22

normal x-rays and the second one is abnormal

23

x-rays. Then under that there are two types of

24

pleural thickening, pleural inconsistent and

25

pleural consistent. And I understand pleural

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2

consistent is consistent with asbestos exposure,
3 and pleural inconsistent would be something else?

4

A. Yes.

5

MR. WILL: Broken ribs?

6

THE WITNESS: TB, something like

7

that.

8

MR. BROWNSON: Okay.

9

Q. But what I am trying to find out is

10

those are charted out as separate categories and

11

they are not included either in normal x-rays or

12

abnormal x-rays. They seem to be somewhere else.

13

And what I am wondering is would that be

14

considered --

15

Let me ask you the question this way:

16

If you saw pleural thickening consistent with

17

asbestos exposure, would that be read as a normal

18

x-ray or abnormal x-ray at that time?

19

A. I don't know the answer to that, as

20

I've charted it here, and it's a long time ago.

21

It was a very crude descriptive statistical

22

exercise.

23

The best I can say is that pleural

24

thickening was looked at separately.

25

Q. Let me ask it this way if you know.

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If we look at this first bar of normal x-rays which is approximately 90 percent of x-rays read, would those x-rays include any pleural thickening?

A. I don't know.

Q. So then the second bar in the first category of zero to nine years since first exposure among the men is abnormal x-rays; is that right?

A. That's correct.

Q. And that indicates that approximately 10 percent of the x-rays in those men were abnormal?

A. Correct.

Q. And I guess if we had approximately 90 percent of normal x-rays and approximately 10 percent of abnormal x-rays, those first two bars seem to cover all of the x-rays, would that be fair to say?

A. They cover 100 percent.

Q. But that might not be all of them?

A. It might not be all of the x-rays, because as you can see, there is 140 percent.

Q. But in any event, approximately 10

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Lewinsohn

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2

percent of all of the x-rays read were abnormal in
that category, zero to nine years first exposure?

4

A. Yes.

5

Q. Let's skip the third bar.

6

The fourth bar is pleural thickening
consistent with asbestos exposure. Is that what
that is?

9

A. If I'm going by the key, yes.

10

Q. And that seems to indicate about a 35
percent, 30-some percent, let's say 35 of x-rays.
Is that right?

13

A. That looks as though you're right.

14

Q. So could I then add approximately 35
percent of x-rays as having pleural thickening
consistent with asbestos exposure and
approximately 10 percent of x-rays being abnormal,
and conclude that approximately 45 percent had
some sort of change related to asbestos on them?

20

A. Not necessarily.

21

Q. Why can't I do that?

22

A. Because there might be an overlap, as
you already pointed out yourself.

24

Q. There might or might not be?

25

A. There might or might not be an

1

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2 overlap.

3 Q. You can't tell?

4 A. I don't know.

5 Q. What we do know for sure is
6 practically 35 percent show up having pleural
7 thickening consistent with asbestos, and
8 approximately 10 percent show up as having
9 abnormal x-rays, right?

10 A. Yes.

11 Q. And other than that, we can't draw
12 further conclusions?

13 A. Probably not.

14 Q. Now --

15 A. Also, I think something you have to
16 recognize is that, and I don't know whether this
17 is so or not, but it's possible that there was
18 exposure at somewhere else other than Turner
19 Brothers Rochdale, that hasn't been counted.

20 Q. In these men?

21 A. In these men.

22 Q. But do you have any information that
23 that is so among the men --

24 A. No.

25 Q. -- on this paper?

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A. No. I don't know at this point in time whether that is so or not.

Q. In 1966, when you began as medical officer at Rochdale, do you have an idea of what the average exposure to asbestos in the Rochdale plant was?

A. The average exposure?

Q. The average asbestos level in the air.

MR. WILL: You mean just anywhere in the plant?

MR. BROWNSON: I assume it would vary.

A. It varied by department.

Q. You told us earlier that in the carting area it ranged from 8 to 10 fibers per cc, up to 20 or 30?

A. At one point in time.

Q. At one point in time.

And that that decreased over the years?

A. Correct.

Q. Now, is that the highest level of airborne asbestos in the plant that you can

1

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2 recall, or were there areas that were higher than
3 that?

4 A. I don't recall anything much higher
5 than that.

6 Q. So would it be fair to say that as a
7 general proposition, that was at the high end of
8 the level and then it went down from there?

9 A. I think so.

10 Q. And would it also be fair to say that
11 over time that high end exposure level also
12 decreased?

13 A. Yes.

14 Q. The ventilation got better and such?

15 A. Correct. But then of course there
16 was also low end.

17 Q. Do you remember what the low end was?

18 A. Well, the weaving shed was the area
19 that was a prime example and --

20 Q. Do you remember what the air levels
21 were?

22 A. The levels, they were below two
23 fibers per cc.

24 Q. So if we take the year 1972 as an
25 example, could we say that at the Rochdale plant

1
2 the low level of exposure was something below two
3 fibers per cc and the high end was where?

4 A. The low end I think was consistently
5 below two levels per cc; the high end could
6 fluctuate between 8 and 10 to 20 to 30.

7 Q. Let me just go back to figure 2 here,
8 men who had, as of 1972, who had 10 to 19 years
9 since their first exposure were showing
10 approximately 35 percent abnormal x-rays, is that
11 right?

12 A. Yes. On this graph.

13 Q. As reported on the graph in figure 2
14 of your paper?

15 A. Yes.

16 Q. And men who had pleural thickening
17 consistent with asbestos exposure were
18 approximately 60 percent of x-rays?

19 A. That is correct.

20 Q. And that is in the group of 10 to 19
21 years since first exposure?

22 A. Yes.

23 Q. And then if we go to 20 to 29 years
24 since first exposure, those men had approximately,
25 I don't know, 50 to 55 percent of normal x-rays?

1

2

A. Approximately.

3

4

5

Q. And in fact, in that group of men 20 to 29 group since first exposure, there are more abnormal x-rays than normal x-rays?

6

A. Yes.

7

8

9

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Q. Also in that group of 20 to 29 years since first exposure, I see that we have about 90 percent of x-rays with pleural thickening consistent with asbestos exposure.

A. Yes.

Q. Are you aware that in --

A. But can I just remind you that 100 percent is not the maximum here.

Q. Right, I understand that.

Did you present these data at any scientific meetings before you published these papers?

A. These data were presented at a meeting in Rochdale at the local hospital, at a provincial meeting of the Royal Society of Health.

Q. And do you recall after these data were published by the Royal Society of Health in 1972, of speaking about them with Dr. Selikoff or speaking to Dr. Selikoff about these data?

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A. I corresponded with Dr. Selikoff
3 about these data.

4

Q. So would it be fair to say that at
5 some point shortly after these data were published
6 in 1972 at least, Dr. Selikoff was aware of them?

7

A. Well, it was '72 or '73, I don't
8 know. But Dr. Selikoff was made aware of them,
9 yes.

10

Q. And for the record, Dr. Selikoff
11 would be Dr. Irving J. Selikoff at the Mount Sinai
12 School of Medicine in New York City?

13

A. That's correct.

14

Q. Are you aware of the fact that these
15 data as published in Exhibit 3, your 1972 paper,
16 were used by other than the Occupational Health
17 and Safety Administration here in the U.S. when
18 they were setting their asbestos standards?

19

A. They were used by other than in the
20 United States when they proposed an amendment to
21 their asbestos standard in I believe 1972. Or it
22 may have been later than that, I have got the time
23 frames -- I am -- the time frames are not quite
24 clear in my mind at the moment.

25

Q. In any event, OSHA did -- maybe I can

1

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2

help jog your memory -- permanently adopt its

3

asbestos at 5 fibers per cc in June of 1972.

4

Do you know if these data were used

5

at that time or were they used for later

6

revisions?

7

A. They were not used at that time.

8

Q. In 1975 OSHA proposed lowering its

9

asbestos standard to .5 fibers per cc. Do you

10

know if it was that revision where these data were

11

used?

12

A. I believe it was that revision.

13

Q. I'm taking you back in time here, but

14

as you understood it, do you recall that Dr.

15

Selikoff was somewhat alarmed at the data

16

presented in your paper here that we just saw

17

summarized in tables 2 and 3, and he went to OSHA

18

at that time and said, "Look at what Dr. Lewinsohn

19

is reporting over in England. You ought to take

20

this data into account"?

21

A. That is my understanding.

22

Q. So again, if we can summarize, at

23

least that data was in the possession of Dr.

24

Selikoff by '72 or '73, and had been presented to

25

OSHA at some point shortly thereafter here in the

1

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2 United States?

3 A. By Dr. Selikoff.

4 Q. Right. And in addition to Dr.

5 Selikoff, do you recall corresponding or meeting
6 or talking with any other American researchers or
7 physicians about the data that we've just been
8 reviewing in your '72 paper?

9 A. Yes, yes.

10 Q. Who was that, can you recall?

11 A. I met with Dr. Paul Kotin who was
12 medical -- I don't know what his title was,
13 medical advisor to Johns Manville.

14 Q. C-o-t-i-n?

15 A. K-o-t-i-n. And Dr. George Wright,
16 who was a consultant to Johns Manville.

17 Q. Is that the Dr. George Wright who is
18 in Cleveland?

19 A. Yes. And Dr. Hans Weil, who was in
20 Tulane University.

21 Q. Tulane?

22 A. Yes.

23 I think those were the people I met.

24 Q. And you met with these American
25 doctors where?

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A. I met with them, at their request, in

3

Denver.

4

Q. In Denver at?

5

A. At Johns Manville headquarters.

6

Q. And how was it that this meeting came

7

about? Were you contacted by these people or did

8

you contact them or --

9

A. No, I was contacted by them.

10

Q. And do you recall who it was who

11

contacted you?

12

A. That I'm not sure of.

13

Q. But in any event, somebody contacted

14

you and there was a meeting at the Johns Manville

15

headquarters in Denver when?

16

A. It must have been about the time that

17

OSHA published its intent to revise the standard

18

down. Whether that would have been '74 or '75, I

19

don't remember.

20

Q. And the meeting took place in Denver,

21

and for the record, Johns Manville was an American

22

asbestos company, right?

23

A. Are you asking me?

24

Q. Yes. I'm asking you.

25

A. Yes, yes.

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Q. It had various asbestos products manufacturing plants and also had asbestos mining interests; were you aware of that at the time?

A. Yes.

Q. Were you aware at that time that one of Johns Manville's mines was near King City, California, in the Coalingo deposit?

A. I had heard of the Coalingo deposit. I didn't necessarily know it was a Johns Manville mine.

Q. In any event, this meeting was venued in the Johns Manville headquarters in Denver, and present was this Dr. Kolin from Johns Manville?

A. Kotin.

Q. Dr. George Wright from Cleveland, Dr. Hans Weil from Tulane, you, and anyone else who you can recall?

A. There was some people from Johns Manville.

Q. Do you remember, was it Chris Schechter? Was he there?

A. No.

Q. Fred Pundsak?

A. Not at the meeting. I had met Fred

1

2 Penjab.

3

Q. Was there a Mr. Jobe?

4

A. Not that I remember.

5

Q. Mr. Ritsea?

6

A. Yes.

7

Q. Fred Ritsea?

8

A. Yes. And a statistician,

9

epidemiologist, statistician that worked for Johns

10

Manville. He worked for Ritsea, I think. I don't

11

remember his name.

12

Q. Would it be fair to say that these

13

people who worked for Johns Manville were

14

concerned about your data at that time and were

15

questioning you about it?

16

A. What they had asked me to do was to

17

update them on the history of the development of

18

all of the data at Rochdale. We went back in

19

time. I started with the Meriweather and Price

20

study that had been done in 1929, which was at

21

Rochdale.

22

The Doll study in 19 -- that was

23

published in 1955, and then its extension into the

24

cohort studies that had been reported by Doll and

25

Knox and others.

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Lewinsohn

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And the BOHS study and then the information that was in this paper. And how all of that data had been accumulated and what the distinctions were between the different sets of data.

7

So we discussed that.

8

Q. And were they concerned about being updated on all of that data at the time of that meeting because of the fact that it appeared that this data was going to form some basis for the revision of the American Occupational Asbestos Standard?

14

A. They were, I think, trying to accumulate as much knowledge as they possibly could about the data that OSHA was relying on to justify its proposed reduction increase in the stringency of the standards. The kind of standards.

20

Q. And of course some of the data that OSHA was relying on at that time to cut the asbestos, the American Asbestos Occupational standard from two fibers per cc down to .5 was your data that we just saw here in Exhibit 3?

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A. As presented to OSHA by Dr. Selikoff.

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Q. So in any event, by the time that OSHA was considering a revision of the asbestos standard here in the United States, the occupational asbestos standard from two fibers down to .5, OSHA had in its possession your data from Rochdale which we have seen in Exhibit 3?

A. I must add again, as presented to them by Dr. Selikoff.

Q. And the way I understand that OSHA got that data was that Dr. Selikoff presented it to them?

A. With his interpretation.

Q. Do you believe that Dr. Selikoff misinterpreted the data to OSHA when he presented it to them?

A. I wouldn't go that far.

Q. Would you --

A. But I think that Dr. Selikoff presented the data in a manner that suited his purpose.

Q. Let me ask you this: Do you believe that Dr. Selikoff presented your data from Rochdale to OSHA in a manner that was more alarmist than the way you would have presented it?

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A. No. I think Dr. Selikoff took my data and reworked it and presented it to OSHA. And it was my contention in my correspondence with Dr. Selikoff that that was, A, unjustified, and B, somewhat unethical due to the fact that he never bothered to consult me about it, and that I had some concerns about my own data that had he talked to me about them, he might have understood my point of view.

Q. And do you know if those concerns that you expressed to Dr. Selikoff ever made their way to OSHA, or did OSHA just get Dr. Selikoff's view of your data?

A. I don't honestly remember if my -- no, I don't know if there was any direct correspondence with OSHA.

Q. And as you recall it, taking yourself back to those years in the early 1970s, at least here in the United States was Dr. Selikoff one of the leading researchers on asbestos and disease?

A. According to Dr. Selikoff, yes.

Q. Was his research widely disseminated in the United States concerning asbestos and disease, by that time?

1

2

A. Very widely.

3

Q. Around the 1970s?

4

A. Very widely disseminated by

5

television, the lay press and some journalists.

6

Q. And were his views, whether right or

7

wrong, on asbestos and disease available here in

8

the United States or disseminated here in the

9

United States, at least in the medical literature

10

by the early 1970s?

11

A. Dr. Selikoff's published scientific

12

documents are impeccable and are authoritative,

13

and probably largely because his co-author, Dr.

14

Cuyler Hammond, was a very brilliant man.

15

So Dr. Selikoff's published

16

scientific literature I have no quibbles with.

17

And he contributed greatly to the knowledge and

18

understanding of asbestos and health in the United

19

States, and thereby in the world as well.

20

So I have no axe to grind on that

21

score.

22

Q. If an American asbestos company in

23

1973, this time period we are talking about,

24

wanted to know what data OSHA was considering and

25

OSHA had in its possession to revise the American

1

Lewinsohn

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2 occupational asbestos standard, would it have had
3 available to it this interpretation that Dr.
4 Selikoff put on your data that you've just told us
5 about?

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MR. WILL: Excuse me. Are you
asking him could they have called up OSHA
and would OSHA have told them what Selikoff
told OSHA about Dr. Lewinsohn's data? I
don't know if he knows what OSHA would make
available.

MR. BROWNSON: My question is not
what OSHA would make available, but I'm
trying to find out what OSHA had in its
possession concerning your data that we saw
in Exhibit 3.

Q. You seem to have told us what they
had in their possession was not your
interpretation of it, but Dr. Selikoff's.

A. Sorry to mislead you. They also must
have had a copy of my paper. I had no direct
dealings with OSHA. As you know, anything that --
any documentation that OSHA accumulated once the
docket was opened was in the public domain.

So it would not be difficult to find

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Lewinsohn

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2 out, I guess, what OSHA had or didn't have, but I
3 didn't -- that was not up to me to do.

4 Q. If someone checked the OSHA docket at
5 that time to see what data OSHA had in its
6 possession, as I understand what you've told us,
7 they would find Dr. Selikoff's comments concerning
8 your data in addition to your own data itself?

9 A. That's your assumption.

10 Q. I thought that is what you told us,
11 but maybe not.

12 A. I don't know that.

13 Q. At least we do know that OSHA, that
14 Dr. Selikoff presented to OSHA his own
15 interpretation of your data?

16 A. Well, again, I don't know that Dr.
17 Selikoff did that.

18 Q. Well --

19 A. It may have come from Dr. Selikoff's
20 department, and in Mount Sinai, whether it was
21 actually Dr. Selikoff who presented the data to
22 OSHA or not, I don't know, it could have been Dr.
23 Nicholon or Dr. Lango or anybody who worked for
24 Dr. Selikoff.

25 Q. But in any event, Dr. Selikoff's

1
2 interpretation of your data was presented to OSHA
3 by somebody?

4 A. Yes.

5 Q. And would it be fair to say that at
6 that time, that any person or party interested in
7 the new proposed revised OSHA asbestos standard
8 would have found out that it was based, at least
9 partly, on your data from Rochdale?

10 MR. WILL: I don't think he can know
11 that, Bob.

12 MR. BROWNSON: Well --

13 MR. WILL: I mean, you're asking him
14 to assume what you can find by looking in
15 an OSHA docket at some unspecified point in
16 time.

17 MR. BROWNSON: I don't know if he
18 can know that or not, but I guess --

19 Q. Do you know that?

20 A. I don't know. But let me say that,
21 you know, it's accepted scientific practice that
22 if you are going to quote somebody's work, you
23 cite the reference.

24 Q. So put another way, these data which
25 are shown in Exhibit 3, your paper, which were in

1

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2

circulation in the United States at the time that

3

OSHA was revising its asbestos downwards?

4

A. I don't know whether they were in

5

circulation. I know that Dr. Selikoff had them.

6

The Journal of the Royal Society of Health is not

7

one of the household names in medical literature.

8

And in the United States I don't know

9

how widely that journal would be disseminated, so

10

I can't answer that except to say that I know Dr.

11

Selikoff had it.

12

Q. Do you know when you got to the

13

meeting at Johns Manville that you just told us

14

about, if people at that meeting had the data in

15

their possession?

16

A. To the best of my knowledge, they

17

did.

18

Q. Do you know if they actually had this

19

particular paper, or did they have it in some

20

other form?

21

A. As far as I know, they had the

22

particular paper.

23

Q. So at least as of the time you met

24

out in Johns Manville headquarters in Denver to

25

update these people about your work, they had your

1

Lewinsohn

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2 paper, Exhibit 3, in their possession?

3 A. I believe they did.

4 Q. Do you know who had it in their
5 possession? Was it Dr. Weil or Dr. Wright?

6 A. I don't know who had it.

7 Q. Do you know where they got it?

8 A. No, I don't know where they got it,
9 but it was published in the open literature. They
10 could get it from any number of sources once Dr.
11 Selikoff had revealed its existence.

12 Q. Would it be fair to say that in those
13 years, early 1970s when Dr. Selikoff revealed the
14 existence of your data, it then would be widely
15 disseminated in asbestos medical circles in the
16 United States?

17 A. Again, I don't know how widely it was
18 disseminated. I can't answer you, except to say
19 that Dr. Selikoff had it and I know the people I
20 met with at Johns Manville had it. Who else had
21 it, I don't know.

22 Q. Let me ask you this. If Union
23 Carbide wanted to get it in 1973, is there any
24 reason they couldn't have gotten it?

25 A. None whatsoever. It's in the open

1

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2 literature.

3

Q. And Union Carbide at that time had a

4

medical library at the office of their medical

5

directory in New York City, did they not?

6

A. I wasn't there, I don't know.

7

Q. As of 1982 you were there, correct?

8

A. In Danbury, Connecticut.

9

Q. Was there a medical librarian in.

10

Danbury?

11

A. No.

12

Q. Was the medical library in New York

13

City?

14

A. Not that I know of.

15

Q. Where was the medical library?

16

A. I never -- there wasn't a medical

17

library when I was there.

18

Q. When you started at Union Carbide in

19

1972, who was the medical director of the company?

20

A. The corporate medical director of the

21

Union Carbide was Dr. Tom Lincoln.

22

Q. And do you have any understanding or

23

do you know who the Union Carbide medical director

24

was in 1973?

25

A. I don't know. I don't remember.

1 Lewinsohn 165

2 Q. Do you know Dr. D-e-r-n-a-h-l?

3 A. D-e-r-h-r-a-l.

4 Q. Do you know Dr. Dernehl?

5 A. I met Dr. Dernehl once.

6 Q. Are you aware that he was in the
7 Union Carbide medical department in the early
8 1970s?

9 A. I am aware that he was a former Union
10 Carbide medical director. I don't know the dates
11 of his tenure.

12 Q. Would it be fair to say that Dr.
13 Dernehl would have better information than you as
14 to what medical libraries were available to Union
15 Carbide back in the early '70s?

16 MR. GERSON: Better information than
17 Dr. Lewinsohn?

18 MR. BROWNSON: Right.

19 A. Well, I wasn't there, so he probably
20 would, yes.

21 (Recess taken.)

22 MR. BROWNSON: Back on the record.

23 Q. When we broke at the break here, we
24 had been talking some about Dr. Selikoff.

25 And when did you first meet Dr.

1

Lewinsohn

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2 Selikoff?

3 A. I think I first met him in 1968 in
4 Dresden.

5 Q. That was at a meeting?

6 A. At a conference.

7 Q. On what?

8 A. On asbestos.

9 Q. And I take it you were aware of he,
10 Dr. Selikoff and his work before that time?

11 A. Yes. I was aware of Dr. Selikoff's
12 work following the publication of the Annals of
13 the New York Academy of Sciences Supplement.

14 Q. And was that published in December of
15 '65 or after that?

16 A. I believe it was published in '65.

17 Q. I think the main proceedings, the big
18 book was published in '65?

19 A. '65, correct.

20 Q. And are you saying there was some
21 supplement to that?

22 A. No. That's the one I'm referring to.

23 Q. Okay.

24 A. It is a supplement to Annals,
25 Supplement 132.

19

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Lewinsohn

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2

Q. In 1965 you were with the
3 pneumoconioses unit that you've told us about
4 earlier?

5

A. In 1965?

6

Q. Yes.

7

A. Yes.

8

Q. So it was while working for the
9 pneumoconioses unit in England that you learned of
10 the work of Dr. Selikoff?

11

A. When did I -- I went back to the --
12 to England in 1963.

13

At the pneumoconioses medical panel
14 in 1964 we used to have regular meetings. I heard
15 about the New York meeting and Dr. Selikoff's work
16 through Dr. McVide, who was the senior medical
17 officer of the pneumoconioses medical panel who
18 attended that meeting, and in fact presented a
19 paper at that meeting.

20

And when he came back he distributed
21 his paper and I guess told us about Selikoff's
22 work. So I heard it about in '64. I didn't read
23 his publications until after they came out in the
24 Annals.

25

Q. They were published in the Annals of

1

Lewinsohn

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2

the New York Academy of Science in 1965. Did you

3

then read Dr. Selikoff's papers?

4

A. I read most of the papers in that

5

book at the time.

6

Q. And were you aware at that time

7

that -- at the risk of simplifying this -- were

8

you aware at that time that Dr. Selikoff was

9

following a group of insulation workers in New

10

York City and New Jersey?

11

A. Yes.

12

Q. And reporting on their experience

13

with asbestos?

14

A. Yes.

15

Q. And are you aware that since that

16

initial conference in 1964 that was published in

17

1965, that Dr. Selikoff has published other papers

18

up through the years concerning that same group of

19

asbestos insulation workers?

20

A. Yes.

21

Q. I've got here a number of or a few of

22

these papers, and I just wanted to show you some.

23

MR. BROWNSON: Let's mark this this

24

one.

25

(Whereupon, paper entitled "Asbestos

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Lewinsohn

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Exposure and Neoplasia," marked Lewinsohn

3

Exhibit 4 for identification as of this

4

date.)

5

Q. I have shown you Deposition Exhibit

6

No. 4, which is a paper entitled "Asbestos

7

Exposure and Neoplasia," which was published in

8

the Journal of the American Medical Association in

9

April 6, 1964.

10

Do you know whether you read this

11

paper at any point in time?

12

MR. WILL: Any point in time?

13

MR. BROWNSON: I will start with any

14

point in time. And if he says no, we can

15

end it right there.

16

A. Yes, I read this paper.

17

Q. My next question is do you know when

18

you first read it?

19

A. That I can't tell you. It could well

20

have been after its publication in 1964 some time.

21

Q. Are you familiar with this paper?

22

A. Well, what makes we believe that I

23

read this paper is this is where Selikoff first

24

indicated the added risk of smoking and working

25

with asbestos.

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Lewinsohn

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2

Q. In this particular paper it indicates that he was investigating the members of the Asbestos Workers Union in the New York Metropolitan area. And then he goes on to describe some of his findings.

7

Is that correct?

8

A. Yes. That's what the paper is about.

9

Q. And I want you to look at the last page of the paper, which is page 26. It has a heading with an italicized clause "Environmental asbestos exposure," and he writes "The recent demonstration by South African and British investigators of pleural and peritoneal neoplasms among individuals who had chance environmental exposure to asbestos many years before raises the very important question of possible widespread carcinogenic air pollution."

19

Do you know what he is talking about when he talks about the British investigators?

21

A. Yes.

22

Q. What's that?

23

A. I believe he is talking about the British investigator, I believe he is talking about Dr. Newhouse.

25

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Lewinsohn

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Q. And that is Molly Newhouse?

3

A. Dr. Molly Newhouse, reference number..

4

Q. He has got McCaughey?

5

A. McCaughey coffee, Wade and Elmes.

6

Q. You're aware, though, of the work of

7

Dr. Newhouse in the mid '60s?

8

A. Yes.

9

Q. Then he goes on to write at the end

10

of the article, "A particular variety of

11

environmental exposure may be of even greater

12

concern. Asbestos exposure in industry will not

13

be limited to the particular craft that utilizes

14

the material. The floating fibers do not respect

15

job classifications."

16

Do you see that?

17

A. Yes.

18

Q. What I am wondering is when you were

19

at the pneumoconioses unit, and then after 1966 at

20

Turner Brothers, did you have an understanding

21

that the asbestos fibers, to use Dr. Selikoff's

22

words, do not respect job classifications?

23

In other words they could float or

24

drift around the work area?

25

A. Did I have an understanding? It was

1

2 Manville mine at Coalinga. California?

3

A. I have no idea.

4

Q. How about the Atlas asbestos mines at
5 Coalinga?

6

A. I don't know anything about those two
7 mines.

8

Q. Do you have any information about the
9 current activity of the California board of air
10 resources Superfund activity at Coalinga?

11

A. I've heard something about it, but
12 I'm not familiar with the details.

13

Q. And when you say you've heard
14 something about it, was that more or less in
15 passing or have you heard it in connection with
16 some work you have been doing?

17

A. Yes, more or less in passing.

18

Q. Do you have an understanding that
19 some governmental body in California is attempting
20 to claim that the Supertene department in
21 Coalinga, California poses some sort of health
22 hazard because it's getting into the air or water
23 out there?

24

A. That's what I've heard.

25

Q. Other than that do you have any

1
2 standing nearby watching, for example?

3 A. Yes.

4 Q. In other words, the fibers could
5 drift for some distance.

6 A. Yes.

7 Q. I guess that's more or less a matter
8 of common sense, isn't it?

9 A. Yes. That's I why I call it
10 bystander exposure.

11 Q. So what Dr. Selikoff is reporting in
12 this paper, Exhibit 4, that I just read, wouldn't
13 have been surprising or shocking to you in those
14 years, would it?

15 A. Well, it would have been -- he and
16 the others were introducing a new concept to the
17 conventional views of asbestos which had
18 traditionally been regarded as purely an
19 occupational disease limited to certain
20 occupations. And what these people were
21 demonstrating was that there was a potential for
22 exposure to others who hitherto had not been
23 regarded as being exposed.

24 Q. Look at Exhibit 4, the authors are
25 listed as Dr. Irving J. Selikoff and then

1

2 C-h-u-r-g.

3

Do you know a Dr. Churg?

4

A. I don't think I know Dr. Churg.

5

I've seen his name on Selikoff

6

publications, but I don't know him.

7

Q. And then also listed is Cuyler

8

Hammond. And Dr. Hammond, as I understand it, is

9

not a medical doctor?

10

A. No, Dr. Cuyler Hammond, as I

11

understand it, is a doctor of Science, that is his

12

degree.

13

Q. But he was the vice president of the

14

American Cancer Society at that time; were you

15

aware of that?

16

A. I didn't know what his honors were.

17

Q. This particular paper, Exhibit 4, was

18

published in a medical journal, JAMA, which is the

19

Journal of the American Medical Association. I

20

take it you're familiar with that journal today?

21

A. Yes.

22

Q. Were you familiar with that journal

23

back in 1964?

24

A. Yes.

25

Q. Was that journal available over in

1

Lewinsohn

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2 England?

3 A. Yes.

4 MR. BROWNSON: Let's mark this one.

5 (Whereupon, paper by Drs. Selikoff,
6 Churg and Hammond, marked Lewinsohn Exhibit
7 5 for identification as of this date.)

8 Q. I'm showing you what has been marked
9 as Deposition Exhibit 5. And the copy that you've
10 got doesn't have a date, but I'll tell you this is
11 a paper by Dr. Selikoff, Churg and Hammond that
12 was published in the proceedings of this
13 conference of 1964.

14 Published in the Annals of the New
15 York Academy of Science in 1965.

16 Do you recognize this paper as one
17 that you mentioned earlier that you read?

18 A. Yes.

19 Q. And this one is called "Neoplasia
20 among Insulation Workers in the United States with
21 Special Reference to Intra-Abdominal Neoplasia."

22 And its authors are E.C. Hammond --
23 is that the same Cuyler Hammond that we saw in
24 that other paper?

25 A. It is.

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Lewinsohn

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Q. He is listed as being at the New York
Cancer Society in New York. And then Dr. Selikoff
and Churg at the Mt. Sinai Hospital in New York.

Is that correct?

A. That's what it says.

Q. And I wanted you to look at a couple
of things here.

If you look at the first page, Dr.
Selikoff or the authors of this paper have a
discussion about malignant neoplasias, and by that
they mean cancers, do they not?

A. They mean new growth which are
malignant.

Q. In laymen's terms, would that be
cancer?

A. It could be cancer, it could be
leukemia, it could be lymphoma, but it's a new
growth, neoplasm.

Q. But in terms of the asbestos
insulation workers being studied by Dr. Selikoff,
the neoplasms he is talking about are lung cancers
and mesotheliomas, aren't they?

A. I'm sorry, I was looking at the
paper, could you repeat that?

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Q. In terms of the asbestos insulation workers being studied by Dr. Selikoff that are talked about in this paper, the neoplasms that he was seeing in those workers and reporting about were lung cancers and mesotheliomas, among others?

A. In this paper?

Q. No, among the insulation workers.

A. He is reporting on intra-abdominal neoplasia in this paper.

Q. Okay. And do you understand --

A. In insulation workers.

Q. Do you understand what the intra-abdominal neoplasias are that he is talking about?

A. Well, I would have to read it, but I -- I believe, let's see which he is talking about.

He is got a gastrointestinal carcinoma.

Q. Look at Table 1, which I think might summarize it.

A. Stomach, colon and rectum, so I guess that is what he is calling gastrointestinal carcinoma.

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Q. Did you understand that Dr. Selikoff in 1964 and '65, and around the time of this paper, was reporting that these asbestos workers not only had higher rates of lung cancer than expected, but he also was claiming that they had various types of gastrointestinal cancers, stomach cancer, colon cancer, higher than expected?

A. Very interesting, he was the only person finding that.

Q. But that's something that he was reporting back at that time?

A. Yes.

Q. And that is a subject of this particular paper?

A. Yes.

Q. Exhibit 5?

A. Yes.

(Whereupon, paper presented by Dr. Selikoff published in the Annals of New York Academy of Science in 1965 marked Lewinsohn Exhibit number 6 for identification as of this date.)

Q. Next I've got Exhibit 6 and this is another paper presented by Dr. Selikoff that was

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published in the Annals of New York Academy of

3

Science in 1965.

4

Do you recall this as one of those
papers that you read?

6

A. Yes, it is.

7

Q. And this one is entitled "The
Occurrence of Asbestosis Among Insulation Workers
in the United States."

10

Is that correct?

11

A. That is the title.

12

Q. And do you recall reading that back
in this 1965 time period, the one when it was
published?

15

A. I believe I read this.

16

Q. And I don't know if I can summarize
the contents of this entire paper in a sentence,
but I'll try.

19

Would it be fair to say that what Dr.
Selikoff is reporting here is, again, about these
asbestos insulation workers, same group of workers
he had been talking about in his prior papers, is
that right?

24

A. Well, I think he expanded the
numbers; his original papers were 363 insulation

25

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2 workers and here is he is talking about much
3 larger group.

4 14,000 total membership examined, he
5 is talking about more than a thousand.

6 Q. It's, I guess what I meant to say --
7 I'm sorry?

8 A. So it's --

2

9 Q. It's the same workers, he is just
10 reporting on more of them as time goes on, he is
11 reporting on more and more of these people?

12 A. Yes, he is actually talking about a
13 larger group of people; whether they include these
14 365, I don't know.

15 Q. But again, this larger group is
16 asbestos insulation workers in the United States?

17 A. Yes, that is what he calls them.

18 Q. I see on the first page in the second
19 full paragraph he is giving some history of
20 historical references to asbestos disease in
21 textile workers and he mentions the publication of
22 Cooke's case in 1927?

23 A. Which page is this?

24 Q. It's on the very first page.

25 A. Yes, right.

1
2 Q. Is that the same Cooke's case we
3 looked at earlier that arose?

4 A. That is correct.

5 Q. Out of Turner plant back in the early
6 1920's?

7 A. Reference number No. 4 in the paper,
8 "Pulmonary Asbestosis," British Medical Journal,
9 Volume Two, pages 1024 to 1025.

10 Which is not the same publication --
11 this also is a British medical journal in 1924.

12 Yes, I'm sorry, it's the same case,
13 but he has given two different references for it.

14 Q. In fact, there are actually, I guess
15 that particular case was published two or three
16 different times?

17 A. Right.

18 Q. And I've got here a couple of other
19 references from the British Medical Journal in
20 '27, which I won't mark, but I just wanted to make
21 the point that we were talking about that same
22 woman?

23 A. It would appear so.

24 Q. And if you look at the section
25 entitled "Results" on page 142 of Dr. Selikoff's

1

2 paper here, he reports that, "Among the asbestos
3 insulation workers examined by us, evidence of
4 pulmonary asbestosis was present in almost half of
5 the men examined."

6

A. Page 142?

7

Q. 146, I'm sorry.

8

A. Okay.

9

Q. Do you see that reference?

10

A. Yes.

11

Q. And then he says, "In this

12

evaluation, radiologic change has been used as the
13 sole criteria," right?

14

A. Yes.

15

Q. So is he saying there that based on

16

x-rays only, he claims to see pulmonary asbestosis
17 in almost half of the insulation workers that he
18 examined?

19

A. What he is saying there is that the

20

sole criteria was x-rays. That almost half of the
21 men examined had evidence of asbestosis using that
22 criteria, yes.

23

And it goes on to say that, "We

24

understand that evaluation of the presence of

25

asbestosis limited only to x-ray findings tends to

1
2 result in underestimation."

3 Q. And what do you understand him to
4 mean by that?

5 A. Well, he means that there may be some
6 cases that have other criteria of diagnosis as I
7 pointed out to you, other criteria for the
8 diagnosis of asbestosis, as I pointed out to you
9 earlier, and that do not necessarily have x-ray
10 changes.

11 Q. So would it be fair to say that what
12 Dr. Selikoff is reporting is almost half of these
13 asbestos insulation workers in the United States
14 had asbestos on x-ray, but really more of them
15 might have asbestosis if he used these other
16 diagnostic criteria?

17 A. Well, what Dr. Selikoff is saying is
18 that of 1258 asbestos insulation workers that he
19 examined by his criteria, and he doesn't say what
20 his x-ray reading criteria were, had pulmonary
21 asbestosis in over half.

22 Q. And I wanted to get at this point of
23 underreporting of cases. Does that mean that if
24 other diagnostic criteria were used, there may be
25 even more asbestosis among that group of workers?

1

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2

A. That's his conclusion; whether he is right or wrong, I don't know because his reading of the x-rays may be faulty, so he may have overread his films and have more cases if he is using solely radiologic criteria.

7

Q. Right or wrong, that at least is what he was reporting and publishing in the Annals of the New York Academy of Science in 1965, correct?

10

A. That was Dr. Selikoff's opinion in 1965.

12

Q. I think you told us earlier that you considered, and I guess consider now his published work to be authoritative?

15

A. I do.

16

Q. Because of the presence with him of Dr. Cuyler Hammond?

18

A. Right.

19

Q. And Dr. Cuyler Hammond is a co-author on this paper, isn't he?

21

A. Sure, but that doesn't mean to say I have to agree with everything that is written.

23

Q. If I could just summarize this, the papers that we just looked at, Deposition Exhibits 4, 5 and 6, by Dr. Selikoff were all papers which

25

1

2 were presented in 1965 or published in 1964 and
3 1965 in connection with this conference on
4 asbestos and disease held here in New York City.
5 Would that be fair to say?

6

A. Yes. The general one was not, of
7 course.

8

Q. But --

9

MR. WILL: I'm not trying to be
10 funny, you've got three articles there that
11 were published in '64 and '65.

12

MR. BROWNSON: Right.

13

Q. Exhibits 5 and 6 were both papers
14 presented at the asbestos conference in New York
15 City in 1964 and both published in 1965 by the New
16 York Academy of Sciences, right?

17

A. Right.

18

Q. And that conference on asbestos in
19 1964 in New York City received wide publicity, did
20 it not?

21

A. Yes, Dr. Selikoff saw to that.

22

Q. He was something of a publicity hound
23 with respect to asbestos?

24

A. He sure was.

25

Q. With respect to his work on asbestos

1

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2 and disease?

3 A. Yes.

4 Q. And at that time in 1964 and 1965,
5 didn't Union Carbide have its medical department
6 in New York City?

7 A. Again, I wasn't with Union Carbide in
8 1964, '65, but Union Carbide's headquarters were
9 in New York City.

10 Q. And was its medical director at the
11 headquarters in New York City or someplace else?

12 A. I don't know. I would think he was,
13 but I don't know.

14 Q. After you left Turner Brothers in
15 1976, you went to Raybestos-Manhattan Company?

16 A. That's correct.

17 Q. Where were they located?

18 A. Headquartered in Trumbull,
19 Connecticut.

20 Q. So at that point in 1976, you left
21 England for the United States?

22 A. That is true.

23 Q. Went to work for Raybestos-Manhattan
24 in Trumbull, Connecticut?

25 A. Yes.

1

2

Q. At that time, they were a

3

manufacturer of various asbestos products, were

4

they not?

5

A. Friction materials, basically.

6

Q. By friction materials, we mean

7

brakes?

8

A. Caskets, clutches, yes.

9

Q. What were your duties with

10

Raybestos-Manhattan when you started with them in

11

1976?

12

A. I was asked to come to

13

Raybestos-Manhattan to help them develop their

14

medical surveillance program for asbestos workers.

15

Basically that was my main role.

16

Q. And how long did you work for

17

Raybestos-Manhattan?

18

A. I would say about four years, I left

19

there in 1981.

20

Q. And when you left in 1981, you went

21

to work for Perkin-Elmer Corporation in Norwalk,

22

Connecticut?

23

A. Right.

24

Q. You worked there for one year?

25

A. For one year.

1

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2

Q. What did you do for them?

3

A. They had again not had a full-time

4

corporate medical director before and I went to

5

establish a medical program for them.

6

Q. Did that have anything to do with

7

asbestos workers?

8

A. Nothing whatever.

9

Q. Weren't they some kind of an optical

10

company?

11

A. Electrical optical manufacturing

12

company.

13

Q. And then in 1982, you went to work

14

for Union Carbide Corporation?

15

A. That is correct.

16

Q. At Danbury, Connecticut?

17

A. Yes.

18

Q. You stayed at Union Carbide in one

19

capacity or another until your retirement in 1992

20

that you told us about earlier?

21

A. That's true.

22

Q. And at all times that you were with

23

Union Carbide from 1982 to 1992, were you located

24

at Danbury, Connecticut?

25

A. Yes.

1

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2

Q. And as I understand, you were

3

attached to different divisions within the company

4

during those years, but were your duties generally

5

the same or did they change over time?

6

A. They -- I'm not being facetious, but

7

the answer is yes and no. They stayed essentially

8

the same. No, they didn't change. They stayed

9

essentially the same; yes, there was some

10

modifications from time to time in my duties.

11

Q. Did your duties during that those

12

years from 1982 to 1992 with Union Carbide include

13

the area of asbestos and disease?

14

MR. GERSON: At any point during

15

that time?

16

MR. BROWNSON: Right.

17

A. Between 1982 and 1992?

18

Q. Right.

19

A. Very peripherally. You know, it

20

was -- I did not have a functional responsibility

21

of any kind for any of the asbestos division, or

22

you know --

23

Q. Let me ask you this, during those 10

24

years from 1982 to 1992 with Union Carbide, did

25

your duties include looking at workers in various

1

2 Union Carbide plants who may have been exposed to
3 asbestos in the plants?

4

A. Did I look at the workers?

5

Q. Right.

6

A. I never actually examined any
7 workers. I did -- I believe probably shortly
8 before the King City operation was divested or
9 sold off or whatever happened to it, I was asked
10 to review the some of the records of the workers
11 in that facility to see whether there was any
12 evidence of health effects.

13

Q. I am confining my questions to the
14 moment not to King City workers, but workers in
15 other Union Carbide plants or facilities.

16

A. No, the answer still is no.

17

Q. For example, the answer probably will
18 remain the same, but let me try to explain what I
19 am getting at.

20

Union Carbide had plants in West
21 Virginia where they made chemicals and workers in
22 those plants may or may not have been exposed to
23 asbestos pipe covering, for example. And my
24 question goes to whether you had any duties or did
25 any work with respect to workers of that type who

1

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2 were in some Union Carbide facilities but may have
3 been exposed to asbestos?

4 MR. GERSON: You're talking about
5 direct examinations of individuals?

6 MR. BROWNSON: Yes, let's start with
7 that.

8 A. Union Carbide had physicians,
9 full-time physicians at its major plants, were
10 responsible for the day-to-day provision of
11 services to the employees.

12 Q. So you would not have seen such
13 employees to do medical evaluations?

14 A. My role was essentially an
15 administrative role at headquarters.

16 MR. WILL: The answer was no. I
17 know you are in a hurry, but when he said
18 did you not see any workers, you can just
19 say no. I know you're in a hurry.

20 Q. So you didn't permanently see or
21 treat workers in a medical capacity while you at
22 the headquarters in Danbury, Connecticut; you were
23 in more of an administrative capacity?

24 A. That's true.

25 Q. And in that capacity at the

1

2 headquarters at Danbury, Connecticut, did you do
3 any epidemiological work concerning workers in
4 Union Carbide plants or facilities other than the
5 King City? Put that aside for the moment.

6

A. Yes, I did at one -- not published
7 work, but purely to assess the value of a
8 computerized medical record-keeping system that
9 had been in use for some time, together with the
10 epidemiologist at Union Carbide, we looked at the
11 data that had been accumulated in that system and
12 we chose asbestos workers; but that was a --
13 regulated because that was a regulated group of
14 people and they were clear-cut parameters that, we
15 could look for.

16

But that was not a published work; it
17 was simply a quality assurance type of exercise.

18

Q. By 1982 when you came to Union
19 Carbide, would it be fair to say that Union
20 Carbide workers in various Union Carbide plants
21 were covered by OSHA asbestos regulations as they
22 may apply to their jobs in the plants?

23

MR. GERSON: When you say covered by
24 OSHA regulations, what does that mean?

25

A. I think you have to be more specific.

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2

Q. Union Carbide, for example, and I

3

don't want to dwell on this, but for example,

4

Union Carbide had plants at Institute, West

5

Virginia and West Carlton, West Virginia and in

6

those plants, I guess, because plaintiffs' lawyers

7

now claim this, there were various workers who

8

used pipe covering and insulation and that sort of

9

thing. And what I am wondering is when you came

10

to the company in 1982, if you understood that

11

workers in Union Carbide plants who were using

12

asbestos or working with asbestos would be covered

13

by OSHA regulations?

14

A. Let me put it this way.

15

The OSHA standard requires has a

5

16

permissible exposure level, PEL, and it also as an

17

action level. The action level triggers when

18

medical surveillance is required.

19

The regulations would apply if the

20

permissible exposure level were exceeded.

21

It was my understanding that the

22

permissible exposure level was not being exceeded,

23

but that as a purely, what's the word,

24

precautionary measure, all persons who were

25

potentially exposed to asbestos were kept under

1

2 surveillance at Union Carbide plants.

3

Q. And when you came to the company in
4 1982, were you aware of the fact, of that fact at
5 that point?

6

A. Was I aware of that fact?

7

Q. Yes.

8

A. I soon learned about it,

9

Q. When you came to Union Carbide, did
10 you make some inquiry to learn those sorts of
11 facts or did that just come to your attention in
12 the course of your work, or how did that happen?

13

A. Well, I went around all of the sites
14 and was shown the operations and learned what was
15 being done, and saw what the medical departments
16 were doing and looked at their records and asked
17 questions.

18

I got how many people were exposed to
19 asbestos, how many were exposed to noise, how many
20 were exposed to benzene, whatever the regulations
21 were in effect I was interested in and involved in
22 and gave advice and guidance on.

23

Q. As part of that education when you
24 toured around to these various facilities, did you
25 learn how long Union Carbide had been doing

1
2 surveillance on its workers who were exposed to
3 asbestos?

4 MR. GERSON: Before Dr. Lewinsohn
5 answers, I want to state for the record, if
6 I understand the questions correctly, they
7 all pertain to plans where Calidria was not
8 used, and these questions are not being
9 restricted specifically to Union Carbide
10 employees who may have been exposed to
11 Calidria but rather to other asbestos. And
12 Union Carbide, in --

13 MR. BROWNSON: Any asbestos.

14 MR. GERSON: -- Union Carbide, in
15 past discovery involving interrogatories
16 and production requests, has set forth an
17 objection to the relevancy of expanded
18 inquiries into such areas. So I just want
19 to say we do not waive those objections
20 here at this proceeding by any responses or
21 by allowing the witness to respond for the
22 purposes of expediting discovery.

23 And in fact we very much maintain
24 objections to inquiries as to conditions in
25 Union Carbide facilities or pertaining to

1 Union Carbide employees where Calidria was
2 not in use and who were not exposed to
3 Calidria.
4

5 In the interest of time, I won't
6 reiterate that objection to each question,
7 but as long as it's understood that the
8 objection stands generally.

9 MR. BROWNSON: Subject to that
10 objection, do you have the question in
11 mind?

12 THE WITNESS: I'd have to have the
13 question repeated, please.

14 MR. BROWNSON: Let me rephrase the
15 question.

16 And I'll understand that this
17 objection will continue to apply so we
18 don't have to waste time.

19 MR. WILL: One more preliminary
20 matter. At one point you were asking him
21 to consider everything other than the King
22 City plant and King City operation. Are we
23 still in that mode at this point?

24 MR. BROWNSON: Yes, let me rephrase
25 the question subject to Mr. Gerson's

1

2

objection.

3

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Q. At the time after you started with Union Carbide in 1982, as you became educated about what was going on in the various plants and facilities other than King City, we will go on and talk about that, did you learn how long Union Carbide had been doing medical surveillance on employees in its plants who were exposed to asbestos?

A. In all honesty, I can't say -- I can't say -- I can't say I was interested in that.

Q. So as you sit here today, you don't know how long Union Carbide may or may not have been doing that in its various plants?

A. I don't know exactly for how long they were doing it, I simply know that what I examined was as far back as I could into the computerized medical record keeping system, which I believe started in 1975 or thereabouts.

Q. Do you know if employees at the King City mine and mill were entered into the Union Carbide computerized records system?

A. I don't know.

A. I don't know.

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Q. Did you at some point after beginning with Union Carbide in 1982 visit the King City mine and/or mill?

A. I only visited King City on one occasion.

Q. When was that?

A. That was when I was asked to go down there and review the x-rays of the work force just prior to the divestiture of that operation.

Q. Now, I understand that Union Carbide sold the King City asbestos operation, if we can call it that to save time, at some point in the mid 1980s, is that correct?

A. The exact date, I don't remember. I'm sorry.

MR. GERSON: We can stipulate it was sold on June 30, 1985.

Q. June 30, 1985 it was sold to a company called King City Asbestos Company. You know that now that we've been informed by Mr. Gerson?

MR. GERSON: No, no, I didn't inform you of the name to which it was sold, which I actually think it is KCAC.

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MR. BROWNSON: KCAC, Inc. I think it

3

is.

4

A. I now know that, thank you.

5

Q. Whatever it is, you were asked to go

6

review x-rays of workers at some point just before

7

this sale took place, is that right?

8

A. That's my recollection.

9

Q. And do you know who asked you to do

10

that?

11

A. Yes. It was at the request of Mr.

12

Meyers. He was at that time the plant manager.

13

Q. John Meyers?

14

A. John Meyers, I think was his name.

15

Q. Do you know why John Meyers asked you

16

to do that?

17

A. I think it was part of the due

18

diligence process.

19

Q. In connection with the sale?

20

A. In connection with the sale, one

21

reason.

22

Q. First of all, Mr. Meyers is one of

23

the people who somehow is affiliated with KCAC and

24

continues to be out there at the present time; is

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that right?

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A. I don't know the business

arrangements that were struck after the
divestiture.

Q. But in any event, it's your

understanding that in connection with the sale,
that there needed to be a disclosure, what you
call due diligence of certain information about
the company, and do you understand that that is
one of the reasons you were asked to look at the
workers?

A. I think there was a point in time

when all of that was happening and one of the
points of interest was whether there were any
health problems among the workers.

Q. And at that time, did you review the

air measurements, asbestos air measurements that
had been taken at King City, at the mine or mill?

A. I remember reviewing quite a lot of

information from the mine and the mill, but I
think -- I must have -- I was shown air
measurements, I don't remember what they were and
I don't, you know, the actual numerical values, I
can't tell you.

Q. Do you remember when you were shown

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2 the air measurements if any of them exceeded the
3 applicable OSHA standard at the time they were
4 taken?

5 A. I don't believe they did.

6 Q. And were they air measurements kept
7 in the mill at King City or where were they kept?

8 MR. GERSON: You're asking about
9 generally where they were kept or where
10 they were kept when he saw them?

11 MR. BROWNSON: When he saw them.

12 A. I don't remember.

13 Q. Do you remember speaking to any of
14 the industry hygienists at Union Carbide in
15 connection with this investigation you did about
16 air levels at King City at either the mine or
17 mill?

18 MR. WILL: He didn't say he did any
19 investigation of the air levels.

20 MR. BROWNSON: No, no, and I didn't
21 mean to imply that he investigated the air
22 levels. Let me rephrase the question.

23 Q. In connection with your investigation
24 in looking at x-rays, that is what I understand
25 you did, right?

1

2

A. Yes.

3

4

5

6

Q. In connection with that work, did you speak to any of the industrial hygienists concerning air levels at the mine or mill in King City?

7

8

9

A. I did not attempt any correlation between my readings and air levels, so I don't believe that I spoke to anybody.

10

11

12

Q. Did you ask to see x-rays of any particular workers or just of all workers or how did that work?

13

A. Well, it was nearly 10 years ago.

14

Q. As best as you recall.

15

16

17

18

19

A. And I did write a report on my findings. And without that in front of me, at this moment in time, I would have difficulty in recollecting the selection criteria for the group of people whose x-rays I reviewed.

20

21

22

23

24

25

But they were a group that was selected for me, with my collaboration by the physician who did the medical surveillance down there, and the radiology department at the local hospital where the x-rays were taken. And management had provided me with the names.

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Q. So there was a doctor or a physician
3 in King City who had been doing surveillance on
4 the workers as I understand it, correct?

5

A. There was a physician who was a part
6 time, not full time, who did the medical
7 surveillance examinations on the workers.

8

Q. And the x-rays were taken at the King
9 City hospital?

10

A. If that is what the hospital was
11 called. It was a local hospital.

12

Q. Let me ask you this: When you went
13 out there, where were the x-rays? Were they just
14 handed to you or did you have to go down to the
15 hospital or what did you have to do?

16

A. I believe that ahead of my visit all
17 of the x-rays had been pulled, and I had -- I had
18 a room in the radiology department set aside where
19 I spent a day or two reading the x-rays.

20

Q. And do you know how many x-rays you
21 read?

22

A. I think I read approximately a
23 hundred, maybe more.

24

Q. And do you know how many workers were
25 represented by those x-rays?

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A. As I said, without actually having the demographic statistics in front of me, I have difficulty recalling.

Q. So you wrote it up in a report and would you defer to what is written in your report?

A. I would like to.

Q. For the exact data?

A. I'd like to.

Q. Unfortunately, I don't have the report here and --

MR. BROWNSON: In fact, I don't know that I have ever seen that report. Have we seen that, Trevor?

MR. WILL: You got me.

MR. BROWNSON: You probably have, I haven't.

Do you have that report?

MR. WILL: Off the record.

(Discussion off the record)

MR. BROWNSON: Back on the record.

Before we continue, for some reason I don't have his report about the King City workers, but I guess, Alan, I can get that from you.

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MR. GERSON: Yes. The reason you

don't have it is because I don't think you
requested Dr. Lewinsohn's reports, and we
will certainly, now that you are requesting
it, make it available.

Generally we have already offered to
make our entire repository available, but
we will now make this specific document
available to you.

MR. BROWNSON: Anyway, let's try to
forge ahead here.

Q. So we were talking about your review
of the x-rays of King City workers and do you know
if the x-rays you reviewed -- first of all, you
reviewed about 100 x-rays, and we'll defer to the
report for the exact numbers, but do you know if
they were x-rays for about 100 workers or do you
believe there were --

A. I believe I reviewed the first, last
and penultimate on each worker, something like
that. I didn't review the entire series of every
worker. I think I reviewed -- and I think that
was my method.

Q. So when you say the first x-ray, I

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2 assume you mean the --

3 A. The first available.

4 Q. The last x-ray would be the last
5 available?

6 A. Yes.

7 Q. And then what is the penultimate
8 x-ray?

9 A. One before that.

10 Q. Second to the last?

11 A. Second to the last.

12 Q. So again, we'll defer to the exact
13 numbers in the report, but if you reviewed
14 approximately 100 x-rays are we talking?

15 A. 100 people of x-rays.

16 Q. So you reviewed?

17 A. More than 100 x-rays.

18 Q. You reviewed the x-rays of
19 approximately 100 people?

20 A. I believe so.

21 Q. And that would amount to somewhere in
22 the neighborhood of 300 x-rays?

23 A. I believe so.

24 Q. And do you know if when you reviewed
25 those x-rays if you brought some standard IOL

1

2 films out with you to compare?

3

4 A. I always use the IOL films to
compare.

8

5

6 Q. And you'll have to pardon me on this,
7 but how do you do that? Do you just say the IOL
8 film up in the shadow box and put the worker films
next to it?

9

10 A. What I usually do is put up the IOL
11 normal and the IOL minimal changes 10/1 or 1/0.
12 And then I put up an x-ray either on one side of
13 them, between the two, and I compare and if I need
14 to, then I'll put pull out other film and try to
match.

15

16 Q. I understand that you at one time
have been a NIOSH "B" reader?

17

18 A. Yes.

19

20 Q. Were you a NIOSH "B" reader at that
time?

21

22 A. No, I don't think so.

23

24 Q. Had you been a NIOSH "B" reader
25 before you read those films or is that something
that you got after that time?

26

27 A. No, before.

28

29 Q. Do you remember when you got that

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Lewinsohn

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2

certification as a NIOSH "B" reader?

3

A. Not exactly, but I think it was while
4 I was at Raybestos.

5

6

7

Q. But in any event, you had your
standard IOL films with you when you went out to
King City?

8

9

A. And I still have them with me today,
yes.

10

11

12

13

Q. Do you remember as you sit here today
whether any of the hundred or so workers whose
films you looked at in King City had pulmonary
asbestosis?

14

15

A. I didn't see any films with pulmonary
asbestosis to the best of my recollection.

16

17

18

Q. And --

MR. GERSON: Could we break for 30
seconds?

19

20

MR. BROWNSON: Sure.

21

22

23

24

Q. Before we had our break, we just
talked about how in reviewing the x-rays of King
City worker, you didn't find any pulmonary
asbestosis among those workers, correct?

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A. That's my recollection.

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Q. When you say -- and again, we'll defer to your report for exact details, but I'm asking as you recall as you sit here today?

A. As I recall, yes.

Q. When you say you didn't find pulmonary asbestosis, what do you mean by pulmonary asbestosis?

A. I didn't find any radiological evidence consistent with the diagnosis of asbestosis if you were to use the UICC -- sorry, IOL classification greater than 1/0.

Q. So you saw no x-rays that you would have read as greater than 1/0 among those workers?

A. As to the best of my recollection, yes.

Q. Did you see any x-rays that showed any sort of changes that could be or any sort of changes that you read as asbestos-related changes that didn't rise to the level of asbestosis?

A. I don't remember, I don't think so but I don't remember.

Q. Do you remember if you saw any pleural thickening on any of those x-rays?

A. I believe I did see some pleural

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2 thickening, but there were other reasons for it.

3 Q. So in the cases where you recall
4 seeing thickening, you also recall those cases
5 having some other reason for the pleural
6 thickening?

7 A. Right.

8 MR. GERSON: Reason other than?

9 MR. BROWNSON: Asbestos.

10 A. Other than asbestos.

11 Q. Do you remember as you sit here today
12 what those other reasons were?

13 A. No.

14 Q. Do you remember if you saw any
15 pleural plaques on any of those x-rays?

16 A. I don't think I did, but I don't
17 remember.

18 Q. Again, if you would have seen pleural
19 plaques or pleural thickening, would that be
20 indicated on your report?

21 A. Yes.

22 Q. First of all, were the x-rays dated,
23 so you could tell when they were taken?

24 A. Yes.

25 Q. And at that time, around 1985 when

1

2 you were out there, was there some sort of regular
3 x-ray program in place for the King City workers?

4 A. Yes, they were being kept under
5 surveillance, I recall, as outlined in the
6 asbestos standard, the OSHA standard.

7 Q. The OSHA standard?

8 A. Yes.

9 Q. Do you know if they were kept under
10 surveillance because there were airborne asbestos
11 levels above the OSHA action level?

12 A. No, they were kept under surveillance
13 because they were working with an asbestos
14 material and asbestos product.

15 Q. And as you can recall as you sit here
16 today, what were the last x-rays that were taken
17 of these men at the time you looked at them? Were
18 they relatively recent at that time or had they
19 been taken some years before?

20 A. No, they were current.

21 Q. And again as you recall, were these
22 men given annual chest x-rays at that time?

23 A. I think so, but I don't remember.

24 Q. So all of these questions are in
25 general terms because I understand you don't have

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2 an exact recollection, but would it be fair to say
3 that the last x-rays that you looked at at that
4 point in time were relatively recent, of about a
5 year or so of when you had read them?

6 A. I believe so.

7 Q. And then the penultimate x-ray or the
8 next to last would be maybe about a year before
9 that?

10 A. Probably, yes.

11 Q. Again, in general terms, when were
12 the first x-rays from, do you recall?

13 A. I don't recall specifically, but all
14 I can say is they would have been the first
15 available x-ray after hire or at the time of hire.

16 Q. Do you have any recollection as to
17 the average lengths of service of the men whose
18 x-rays you read?

19 A. Not really.

20 Q. Do you know when the King City mill
21 was open?

22 A. No.

23 Q. Okay.

24 A. Again, that is one of the questions I
25 would probably ask about, in the introduction to

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2 my report might have said this has been here
3 since --

4 Q. Do you recall if there were any men
5 in the group whose x-rays you read who had worked
6 at the mine or mill for more than 10 years?

7 A. Quite honestly, I have to say no, I
8 can't recall.

9 Q. Have you ever read a report by NIOSH
10 concerning asbestos air levels in the King City
11 plant that was done around 1983?

12 A. By NIOSH?

13 Q. NIOSH.

14 A. Again, I don't know.

15 Q. This report that you issued
16 concerning the x-rays of the King City workers, to
17 whom was that report issued, or to whom was it
18 addressed?

19 A. I was asked to do it by Mr. Meyers; I
20 would have reported to him.

21 Q. And as far as you know, is that the
22 only survey of its type of the x-rays of the King
23 City workers or had there been others done by
24 other people?

25 MR. GERSON: I guess I object to the

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ambiguity of its type. If you want to
rephrase.

Q. What I am wondering is do you know if
anyone other than you ever looked at all of the
King City x-rays that you did and surveyed them
to --

A. I was told, and I believe this was
maybe after I had even left Carbide, I don't know,
that the x-rays -- that the x-rays had been looked
at in the similar fashion after I had done that
by -- I can see that -- Sawyers, Bob Sawyers.

Q. By Sawyers?

A. Dr. Sawyers.

Q. Robert Sawyers?

A. Robert Sawyers.

Q. And do you know when that was done?

A. It was after I did it. And I don't
know how he came to it, I know he did.

Q. Have you seen any report that Dr.
Sawyers issued?

A. No.

Q. Dr. Sawyers has been listed as an
expert by Union Carbide in this case, I think.

MR. BROWNSON: Hasn't he? I think

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he was.

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Q. Do you know if the survey of King City x-rays that Dr. Sawyers did was in connection with any litigation arising out of exposure to Calidria asbestos?

7

8

A. I don't know why Dr. Sawyers was asked to review those cases.

9

10

11

12

Q. Did you understand that the x-rays that you reviewed were x-rays of all workers who were currently employed at King City at the mine or mill?

13

14

A. To the best of my recollection, the x-rays I had reviewed were of current workers.

15

16

17

Q. Do you know if there were x-rays kept at King City of workers who left their employment in earlier years?

18

19

20

21

22

A. The OSHA standard requires that x-rays and medical records be retained for the duration of employment plus 30 years, and in the case of asbestos 40 years, so I would sincerely hope that they were.

23

24

Q. Do you know where those x-rays are maintained or were maintained at that time?

25

A. At the local hospital in the

1

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2 department of radiology, if they were maintained.

3 Q. And did you make any survey or
4 reading of those x-rays?

10

5 A. No, as far as I'm aware.

6 Q. Do you know if Dr. Sawyers reviewed
7 those x-rays?

8 A. I don't know exactly what Dr. Sawyers
9 did.

10 Q. Have you ever looked at x-rays of any
11 workers other than workers at King City who have
12 been exposed to Calidria asbestos?

13 A. No.

14 Q. And I'm not talking about just Union
15 Carbide workers; I'm talking about anybody; it
16 could be a Conwed worker?

17 A. No.

18 Q. While we are on that topic, have you
19 looked at any of the medical record or x-rays of
20 any Conwed workers?

21 A. No.

22 Q. Do you know what Conwed is?

23 A. Not really.

24 Q. If I told you it was a company that
25 made ceiling tile up in Cokato, Minnesota, had you

1

2 ever heard of that before?

3

A. No.

4

Q. Do you know if while you were at
5 Union Carbide from 1982 to 1992, if there was any
6 epidemiological work of any kind done on the
7 workers of Union Carbide customers who used
8 Calidria asbestos?

9

A. I can't say that I was aware of any.

10

Q. Are you aware of the fact that over
11 the years Union Carbide industrial hygienists took
12 various air measurements at Union Carbide calidria
13 customers' locations?

14

A. I was I know that Union Carbide
15 industrial hygienists took samples at many of
16 Union Carbide customers for various purposes.

17

Q. Have you ever seen any of those?

18

A. I don't remember seeing any of those,
19 insofar as Calidria is concerned.

20

Q. Right, Calidria is what I am talking
21 about.

22

Do you know if anyone has read the
23 x-rays in the manner that you did on the King City
24 workers where you looked at a bunch of x-rays on a
25 number of workers, for workers at the Johns

1

2 Manville mine at Coalinga. California?

3

A. I have no idea.

4

Q. How about the Atlas asbestos mines at
5 Coalinga?

6

A. I don't know anything about those two
7 mines.

8

Q. Do you have any information about the
9 current activity of the California board of air
10 resources Superfund activity at Coalinga?

11

A. I've heard something about it, but
12 I'm not familiar with the details.

13

Q. And when you say you've heard
14 something about it, was that more or less in
15 passing or have you heard it in connection with
16 some work you have been doing?

17

A. Yes, more or less in passing.

18

Q. Do you have an understanding that
19 some governmental body in California is attempting
20 to claim that the Supertene department in
21 Coalinga, California poses some sort of health
22 hazard because it's getting into the air or water
23 out there?

24

A. That's what I've heard.

25

Q. Other than that do you have any

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2 information about that?

3

A. No.

4

Q. What do you think of that claim?

5

A. I'd rather not answer.

6

Q. Is that because you just have

7

insufficient information?

8

A. I have insufficient information.

9

Q. I wanted to show you a --

10

MR. BROWNSON: I guess I'll have

11

this marked. It has previously been marked

12

as Hall Deposition Exhibit 18 in another

13

case called the Manny Stowe case.

14

(Whereupon, document titled "Mellon

15

Institute Special Report: The Fibrogenic

16

Potential of Asbestos Products via

17

Intraperitoneal Injection in Guinea Pigs,

18

Rats and Rabbits and by the Intratracheal

19

Route in the Rat" marked Lewinsohn Exhibit

20

7 for identification as of this date.)

21

Q. I'm showing you what has been marked

22

as Lewinsohn Exhibit 7 and I'll ask you if have

23

you ever seen that before?

24

A. I honestly don't know.

25

Q. And just for the record, it's titled,

DOYLE REPORTING, INC. (212) 867-8220

UCAREF00011720

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2

"Mellon Institute Special Report: The Fibrogenic
3 Potential of Asbestos Products Via Intraperitoneal
4 Injection in Guinea Pigs, Rats and rabbits, and by
5 the Intratracheal Route in the Rat."

6

Did I read that correctly?

7

A. Yes.

8

Q. And it's dated July 8, 1966?

9

A. Right.

10

Q. And why don't you just take a minute
11 and just skim through it there.

12

A. This obviously is a lot to read here
13 and to digest. I've skimmed it.

14

Q. First of all, having now skimmed that
15 report which is Deposition Exhibit 7, do you have
16 any recollection of seeing that before today?

17

A. To be quite honest, no.

18

Q. First of all, that report seems to be
19 some sort of report concerning intraperitoneal
20 injection of asbestos in these various animals,
11 rats, guinea pigs and rabbits.

22

Is that right?

23

A. Correct.

24

Q. And do you remember when you began
25 work in Union Carbide in 1982, if you had made any

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2 sort of survey or investigation of the Union
3 Carbide materials which would have disclosed some
4 of this old material like this exhibit we're
5 looking at now?

6 MR. WILL: You mean did he go look
7 through the files to see what documents
8 there were about asbestos?

9 MR. BROWNSON: Right, right.

10 A. No, I didn't do that. I -- I
11 restricted my searches to necessity, when I needed
12 something I would see if it was there.

13 Q. Obviously this thing is dated 1966,
14 and you began with the company in 1982?

15 A. '82.

16 Q. So this was done well before you
17 started there?

18 MR. WILL: Remember, he was not
19 directly responsible for anything having to
20 do with asbestos.

21 MR. BROWNSON: I understand that. I
22 understand that.

23 Q. My question is: As you recall it,
24 you didn't make any sort of search of the Union
25 Carbide documents for old asbestos reports or

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other reports of this type?

A. No.

Q. And at the time that you started at Union Carbide in 1982, was there somebody else in the medical department who was directly responsible for the asbestos business, the Calidria business?

A. Yes.

Q. Who was that?

A. I believe it was Dr. Fortney.

Q. Fortney?

A. F-o-r-t-n-e-y.

Q. Is he still with the company?

A. No.

Q. Was he at Danbury, Connecticut with you or where was he located?

A. When I first started at Union Carbide, he was located in Indianapolis.

Q. Indianapolis.

Up until the time that Union Carbide sold the asbestos business in 1975, was Dr. Fortney the person in the medical department who was in charge of that?

A. Yes.

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Q. When you began with the company in 1982, did you know at that point in time that Union Carbide had this asbestos business with Calidria asbestos with the Coaling mine and the mill?

A. Well, during my orientation process, I learned about the various Carbide businesses. So I had -- I knew of the existence of the King City.

Q. Before you started at Union Carbide in 1982, did you know about it or is that something that you learned after you joined the company?

A. Before I started with Union Carbide, I knew that Union Carbide had an interest in asbestos; I wasn't that much concerned about what it was.

Q. And based upon your own past experience at the pneumoconioses unit at Turner Brothers and at Raybestos-Manhattan, did you yourself have a particular interest in Union Carbide's asbestos business when you began there in 1982?

A. When I began at Union Carbide in

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2 1982, asbestos was the furthest thing from my
3 mind.

4 Q. Okay.

5 A. I had no -- I didn't go to Union
6 Carbide because of asbestos if that is your
7 question.

8 Q. Did you go to Union Carbide to get
9 away from asbestos?

10 A. No, I went to Union Carbide to earn
11 my living.

12 Q. At the time that you were with
13 Raybestos-Manhattan, had there been any claims
14 made against that company for personal injuries
15 arising out of asbestos exposure legal claims?

16 A. Are you talking about workers
17 compensation or are you talking about, you
18 know, --

19 Q. I am talking about lawsuits.

20 A. Lawsuits.

21 A. Yes, Raybestos-Manhattan I believe
22 was involved in litigation.

23 Q. And as part of your duties at
24 Raybestos-Manhattan, did you work on that
25 litigation or was that outside of your area?

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A. Not really on the litigation, no. I would occasionally be asked for an opinion or advice, but I wasn't directly involved.

MR. BROWNSON: Let me do this.

We've got a little while here. Let me just change the subject a little bit since I can't finish, but I wanted to ask you about one thing.

Q. You have been listed by Mr. Will as a possible expert witness in this particular case.

Do you have any understanding as you sit here today what opinions you would be asked to offer on behalf of Union Carbide in this case?

A. As I sit here today, my understanding is that the opinions I would be asked to offer would be in connection with the my practical knowledge and experience of asbestos and health and all of its aspects.

Q. So as far as you know, and again, I suppose this is subject to change, but as far as you know, you will not be asked to give opinions about the medical conditions of particular Conwed workers? At least you haven't been told that so far?

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A. As far as I know, that is not what I am being asked to do.

4

5

6

Q. And do you hold an opinion as to the toxicity or biological potential of Calidria asbestos or its ability to cause disease?

7

8

9

A. I hold an opinion, yes.

Q. When was that opinion first formed, if you can recall?

10

11

12

13

14

A. Some time during my tenure with Union Carbide as I from time to time was consulted about the health effects of asbestos, and in particular reference to comparison with Calidria, I formed an opinion.

15

16

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18

19

Q. During the 10 years you were with Union Carbide from 1982 to 1992, did people within the company consult you about the health effects of asbestos because of your prior experience and background?

20

21

22

23

24

25

A. Yes.

Q. So even though it was this other doctor -- and I didn't make a note of his name?

A. Fortney.

Q. Fortney, who was in charge of the asbestos business, so to speak, until 1985, people

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2 at Union Carbide would consult you as well on
3 asbestos issues?

4 A. Yes.

5 Q. Did Dr. Fortney ever consult with you
6 about the Calidria asbestos?

7 A. Yes.

8 Q. Have you ever worked done any work in
9 connection with any lawsuits other than this one
10 in which the issue of health effects from Calidria
11 asbestos were involved?

12 A. Not that I know of.

13 Q. What is the opinion that you have
14 about the health effects of Calidria asbestos?

15 MR. WILL: That's's pretty broad
16 question.

17 MR. BROWNSON: Well, we have to get
18 at it somehow.

19 A. It's my opinion that the physical
20 chemical properties of Calidria asbestos are such
21 as to make it extremely unlikely under normal
22 working conditions to produce any significant
23 health effects.

24 Q. Are you saying by that that it would
25 be impossible to get asbestosis from Calidria

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Lewinsohn

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2 asbestos under any circumstances?

3 A. I didn't say it was impossible under
4 any circumstances, but I'm saying that under any
5 normal working conditions.

6 Q. Are you saying that under normal
7 working conditions, it's impossible to get
8 asbestosis or unlikely that you would get
9 asbestosis?

10 A. I'm saying it's extremely unlikely.

11 Q. And when you say normal working
12 conditions, what do you mean by that?

13 A. Where there is not gross overexposure
14 to an overwhelming -- let me rephrase that.

15 Where there is not gross overexposure
16 to a concentration of fibers that would totally
17 overwhelm the normal body defense mechanisms.

18 Q. And do you have an opinion as to what
19 fiber level that would be?

20 A. I have no idea.

21 MR. BROWNSON: Why don't we continue
22 this. Just a couple of things real quick.

23 Q. Concerning Dr. Fortney, is he still
24 alive?

25 A. I hope so.

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Q. Do you know where he is?

3

A. Yes, I do.

4

Q. Where is that?

5

A. Oak Ridge. Oak Ridge, Tennessee.

6

Q. Is is he employed there or is he

7

retired?

8

A. No, he is retired.

9

Q. And how old a man is Dr. Fortney?

10

A. Late '60s.

11

Q. Young man.

12

A. Young man.

13

Q. And what is his first name?

14

A. His first initial is T, I don't know

15

what it stands for, Guy, G-u-y, T. Guy Fortney.

16

Q. Do you know if he still maintains his

17

medical license in retirement?

18

A. He does as far as I know.

19

Q. Do you know if is he doing any work?

20

A. He is working.

21

Q. Working down in Tennessee?

22

A. Yes.

23

Q. Does he still do any consulting work

24

for Union Carbide?

25

A. I believe he does, yes.

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Q. Do you know in if he does any work for Union Carbide at the present time concerning Calidria asbestos issues?

A. I don't believe he does.

Q. What periods of time was he responsible for the Calidria asbestos business, do you know?

MR. GERSON: When you say responsible for the Calidria asbestos business, --

MR. WILL: The medical director for that portion of business?

MR. BROWNSON: Right.

Q. You had identified him as the person directly responsible in the medical department, I'm wondering what period of time that was.

A. I don't know the exact period of time but, or during the time I was there, that was one of his divisions that he had responsibility for.

Q. So at least from '82 to '85?

A. At least, yes.

MR. BROWNSON: I guess that's all I got, other than to say I regret we didn't finish the deposition and what else can I

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say.

MR. GERSON: You have 10 more minutes to finish?

MR. BROWNSON: We have a big pile of stuff.

(Discussion off the record)

MR. WILL: Back on the record.

MR. BROWNSON: I'll just state that I haven't completed my questioning and we would like to reconvene the deposition at a time and place convenient to all involved, particularly Dr. Lewinsohn, and that we will give the deposition exhibits to the reporter and she can put them with the transcript.

MR. WILL: And I assume that I'll have a chance to ask clarification of questions when we reconvene since I don't have that chance now?

MR. BROWNSON: You can ask whatever you want, but I'll just say I wanted to get a copy of those with my copy of the transcript, too.

MR. WILL: Of the exhibits?

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MR. BROWNSON: Yes.

MR. WILL: Yes.

(Time noted: 4:10 p.m.)

Subscribed and sworn to before me

this ____ day of _____, 1994.

C E R T I F I C A T E

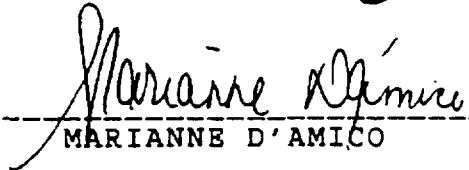
STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

I, MARIANNE D'AMICO, a
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 22nd day of February,
1994.


MARIANNE D'AMICO

1 234

2 February 15, 1994

3 I N D E X

4 Witness Page

5 Hilton C. Lewisohn 6

6 E X H I B I T S

7 Lewisohn For Ident.

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12		"Medical Surveillance	
		of Asbestos Workers"	126
13	4	Paper entitled	
14		"Asbestos Exposure and	
		Neoplasia"	169
15	5	Paper by Drs. Selikoff,	
16		Churg and Hammond	175
17	6	Paper presented by Dr.	
		Selikoff published in the	
18		Annals of New York Academy	
		of Science in 1965	178
19	7	Document titled "Mellon	
20		Institute Special Report	
21		(The Fibrogenic Potential of	
		Asbestos Products via	
22		Intraperitoneal Injection	
		in Guinea Pigs, Rats	
23		and Rabbits and by the	
		Intratracheal Route	
		in the Rat)"	216

24

ooo

25

Corrections to Deposition of Hilton C. Lewinsohn on February 15, 1994

I have read the transcript of my deposition on February 15, 1994 and find the contents to be consistent with my recollection of the questions asked and my replies to them. The following is a list of corrections of typographical errors and mis-spelt words.

- Page 9: Line 12 :amend "services" to service
:amend "employer" to employee
Line 22: insert a comma after employees and change "to" to do
- Page 13: Line 24: change "as" to at and add branch after "country"
Line 25: delete "resident, medical" and insert a period after physician.
- Page 15: Line 9: Insert do after "you"
- Page 16: Line 12: Insert I was after "months"
Line 21: change "at" to as
Line 22: Insert a comma after "Hospital" and delete "of"
Line 23: Insert a comma after "hospital"
- Page 17: Line 3: Delete "Center"
Line 18: Insert a period after "things" and capitalize the y in You
- Page 18: Line 13: Insert a comma after "year", delete "when I was at" and substitute during
Line 14: Insert a parenthesis before "that" at the end of the line
Line 15: Insert a parenthesis after "Mines" and delete "and"
Line 18: transpose "these" from after "Now," to after "Johannesburg"
- Page 23: Line 10: Insert a period after "TB" then start a new sentence with TB
Line 18: Change "beds" to bed
- Page 32: Line 9: Correct spelling from "tenant" to tenens
- Page 33: Line 18: Insert we between "and" and "also"
- Page 37: Line 24: Delete "that"
- Page 40: Line 15: Change "aggressive" to progressive
Line 18: Change "alveoli" to axillae
- Page 42: Line 3: change "found" to fine
Line 9: Delete "the" and substitute pathognomonic for "a pathopneumonic"
- Page 43: Line 11: Insert an after "showed"
Line 12: Change "incidents" to incidence and insert a comma after it, change the next word "in" to an and insert a comma after "cancer"
Line 13: Change "work" to workers and substitute who for "as"
Line 14: Delete "and eventually" and substitute also had
- Page 44: Line 13: Delete "the"

Corrections to Deposition of Hilton C. Lewinsohn on February 15, 1994 (Continued)

- Page 50: Line 7: Change "incidents" to incidence
Line 22: Change "Penart" to Penarth
- Page 51: Line 17: Change "suddenly" to certainly
- Page 52: Line 2: Correct spelling - Merewether
- Page 53: Line 24: Correct spelling - Merewether
- Page 54: Line 2: Correct spelling - Merewether
- Page 55: Line 2: Change "during" to doing
Line 13: Delete "work"
Line 14: Insert a comma after "Yorkshire" and delete "Bersk Bershire" and substitute Derbyshire
- Page 56: Lines 20 and 21 do not make sense and should be deleted.
- Page 57: Line 4: Correct spelling Furness
Line 5: Delete "Bedfordshire" and insert Lancashire instead
- Page 60: Line 11: The word "No" should be deleted
Line 25: Insert and after "time" and not between "were" and "getting"
- Page 61: Line 7: Delete "scales" in both places and insert exams in both places instead.
- Page 65: Line 8: Delete "scales" and insert exams instead
- Page 81: Line 12: Delete "construction" and substitute obstruction for it
- Page 90: Line 3: Ballast not "ballasts" and laden not "latent"
Line 7: Ballast not "ballasts"
- Page 91: Line 23: Insert before between "was" and "1963"
- Page 92: Line 16: Delete "finer"
- Page 95: Line 2: Change "had" to have been
Line 5: " '59" does not seem to be correct and perhaps should be deleted. It is possible that the questioner may have said "around that time".
- Page 98: Line 21: Change "hydrogenist" to hygienist
- Page 100: Lines 17 and 20: Change "carting" to carding
- Page 101: Line 5: Change "hasher" to hopper
Line 17: Change "resolved" to revolved
- Page 102: Lines 9, 11, 12 and 14: Change "carting" to carding
Line 15: Change "parses" to passes

Corrections to Deposition of Hilton C. Lewinsohn on February 15, 1994 (Continued)

Page 103: Line 6: Change "parsed" to passed

Page 105: Lines 10, 16, and 18: Change "carting" to carding

Line 17: Change "cart" (both times in this line) to card

Page 106: Line 21: Change "carting" to carding

Page 107: Line 10: Change "carting" to carding

Line 25: Change "mills" to millions

Page 108: Line 4: Change "mill" to million

Page 115: Line 7: Change "Swasea" to Swaziland

Lines 22 and Line 25: Change "Casio" to Cassiar

Page 117: Line 9: Change "business" to advice

Page 121: Line 22: Change "Montgomery" to Montague Murray

Line 23: Change "Selher's" to Seiler's

Page 124: Lines 8, 15 and 17: Change "incidents" to incidence

Page 125: Lines 20 and 21: Insert the word study after "mortality" in both these lines

Page 128: Line 10: Insert a period after "73" and change "in" to In

Line 24: Change "incidents" to incidence

Page 131: Line 22: Insert Society after "Hygiene"

Page 132: Line 4: Change "105" to 100 and add years after "cc."

Line 7: Add years after "cc."

Page 133: Lines 3 and 22: Add years after "cc."

Page 134: Line 7: Add years after "cc."

Line 14: Delete "Q"

Line 22: Change "incidents" to incidence

Line 25: Change "somewhat" to somewhere

Page 136: Line 22: Delete "doesn't" and change "mean" to means

Line 23: Change "who had the" to whose

Line 24: delete "exposed for", after "years," add that, and after "have" add actually only. This sentence (Lines 22, 23, 24) should now read:

That means to say that somebody who worked...whose years since first exposure had been nine years....that they could have actually only been exposed for one year.

Page 140: Line 7: Change "IOL" to ILO

Corrections to Deposition of Hilton C. Lewinsohn on February 15, 1994 (Continued)

Page 145: Line 17: Change "carting" to carding

Page 149: Line 16: Delete "other than". (*This phrase doesn't make sense to me.*)

Line 19: "other than" doesn't make sense but OSHA does so I suggest it be inserted instead

Page 154: Line 2: Change "Penjab" to Pundsak

Lines 5, 7, and 10: Change "Ritsea" to Reitze

Line 19: Change "Meriweather" to Merewether

Page 160: Line 23: Change "Nicholon" to Nicholson and "Lango" to Langer

Page 167: Line 16: Change "McVide" to McVitte

Page 172: Line 14: Change "by standard" to bystander

Page 193: Line 5: Change "West Carlton" to South Charleston

Line 16: Change "as" to has

Page 206: Line 25: Change "IOL" to ILO

Page 207: Line 3: Change "IOL" to ILO

Line 10: Change "IOL" to ILO and "10/1" to 0/1

Page 208: Line 6: Change "IOL" to ILO

Page 209: Line 12: Change "IOL" to ILO

Page 218: Line 20: Change "Supertene department" to serpentine deposit

H. C. Lewinsohn
4/17/94

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

-----x
IN RE: ASBESTOS PRODUCTS LIABILITY Civil
LITIGATION (NO. VI) MDL 875
-----x

This Document Relates to:
UNITED STATES DISTRICT COURT
FIFTH DIVISION
DISTRICT OF MINNESOTA

-----x
CONWED CORPORATION,
Plaintiff, 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.

-----x
October 18, 1994
HILTON C. LEWINSOHN (Cont'd)



WALTER SHAPIRO. CSR
CHARLES SHAPIRO. CSR

Doyle Reporting, Inc.

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October 18, 1994
9:30 a.m.

Continued deposition of HILTON C. LEWINSOHN,
taken by Plaintiff, pursuant to adjournment,
at the offices of Kelley, Drye & Warren, Esqs.,
101 Park Avenue, New York, New York, before
Paul Kirschen, a Certified Shorthand Reporter
and Notary Public within and for the State of
New York.

* * *

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* * *

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2 H I L T O N C. L E W I N S O H N,

3 resumed, having been duly re-sworn by

4 Paul Kirschen, Notary Public, was

5 examined and testified as follows:

6 MR. BROWNSON: This is a

7 continuation of a prior deposition.

8 EXAMINATION (Continued)

9 BY MR. BROWNSON:

10 Q. Good morning, Dr. Lewinsohn. We are

11 continuing the deposition that we left off some

12 time ago in this case of Conwed versus Union

13 Carbide.

14 I would like to try to get this

15 finished up this morning. I think we can move

16 fairly rapidly here. We can finish this up.

17 First of all, you recall the case,

18 Conwed versus Union Carbide? Do you have that in

19 mind?

20 A. Could you just briefly restate it?

21 Q. O.K. This is the case involving the

22 Conwed ceiling tile plant in Minnesota at which

23 various workers have had various asbestos related

24 diseases which they allege were as a result of

25 their exposure in their plant. Conwed is suing

1

Lewinsohn

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2 Union Carbide as a result of that exposure. That
3 is the case.

4 Does that bring it back to mind?

5 A. Yes.

6 Q. Since the first session of your
7 deposition in this case, have you had a chance to
8 go back and read your testimony or review it in
9 any way?

10 A. Just briefly before this deposition.

11 Q. O.K. Before we started here today?

12 A. Right.

13 Q. Yesterday or something?

14 A. This morning.

15 Q. O.K. And have you reviewed any other
16 materials in connection with the deposition here
17 today?

18 A. No.

19 Q. Since we broke from the first session
20 of this deposition until today, have you gone back
21 to review any materials, that came up in the first
22 session of the deposition to refresh your
23 recollection or update yourself in any way?

24 MR. WILL: You mean go back and
25 reread the exhibits?

1

Lewinsohn

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2

MR. BROWNSON: Not necessarily

3

exhibits to the deposition, but any

4

materials.

5

A. Well, I have had another deposition

6

in another case since this.

7

I guess a lot of the similar material

8

to that which we discussed last time was referred

9

to.

10

Q. This other case, was this a case

11

involving asbestos related disease?

12

A. A case involving Turner & Newall, my

13

former employer.

14

Q. And was this a personal injury case?

15

A. No. This was a property damage

16

situation.

17

Chase Manhattan Bank.

18

Q. O.K. And some lawyer for Chase

19

Manhattan Bank took your deposition?

20

A. Yes.

21

Q. Was that here in New York?

22

A. Yes.

23

Q. Do you remember who that lawyer was?

24

A. I remember the first lawyer's name.

25

The deposition was in two phases. The first one

1

Lewinsohn

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2 was Mr. Connor.

3

I do not remember the second lawyer's
4 name. I think it was Mr. Leonard, but I am not
5 sure.

6

Q. And when did that deposition take
7 place?

8

A. Probably two or three months ago.

9

Q. And in connection with the
10 preparation for that deposition, did you go back
11 and review some materials concerning the workers
12 at the Turner & Newall plant at Rochdale, or what
13 were you looking at?

14

A. I was shown various documents from
15 Turner & Newall's files.

16

Q. Let me shift gears to Union Carbide.

17

Since the last session of your
18 deposition in this case, have you had occasion to
19 review any of the materials or any materials which
20 would pertain to the issue of Union Carbide
21 Calidria asbestos?

22

A. No, I haven't.

23

Q. Have you had occasion, since the
24 first session of your deposition in this case, to
25 review any materials on the issue of chrysotile

1

Lewinsohn

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2 asbestos, an asbestos related disease?

3 A. Well, once again, in the course of
4 preparation and being deposed in the other cases,
5 that issue has come up, yes.

6 Q. How would the issue of chrysotile
7 asbestos and disease come up with the issues in
8 that case.

9 Didn't that case involve Olympus?

10 A. Yes, but one discusses all forms of
11 asbestos, other phases.

12 Q. O.K. So in that deposition, did you
13 testify or discuss all forms of asbestos fiber and
14 health effects?

15 A. To the best of my recollection.

16 Without going back to look at the
17 deposition, I can't be any more specific.

18 Q. Let me direct your attention to this
19 particular case, the case of Conwed versus Union
20 Carbide.

21 It is my understanding that Union
22 Carbide intends to elicit from you some opinion
23 testimony in this case.

24 Can you tell us as you sit here today
25 what you understand the opinions are that you

1

Lewinsohn

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2

would render in this particular case?

3

MR. GERSON: I need to object to the

4

form of the question.

5

We have designated Dr. Lewinsohn as

6

a potential witness without committing

7

ourselves at this stage. We reserve the

8

right to elicit his testimony or not to.

9

MR. BROWNSON: O.K. I understand

10

that he may or may not be called.

11

What I am wondering is -- let me

12

rephrase.

13

MR. WILL: Without the preamble.

14

Q. O.K. What I am wondering, Dr.

15

Lewinsohn, is do you know as you sit here today

16

what opinions you would have to offer in this

17

lawsuit?

18

A. I have no opinions specifically,

19

briefed or informed by Union Carbide as to how

20

they would use my testimony.

21

Q. O.K. Have you had a chance to read

22

the disclosure that counsel for Union Carbide made

23

in this case about areas that you might testify

24

about?

25

A. No.

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Q. Let me just show it to you. I would like to run through these things and ask you some questions about them.

And what I am showing the witness, I am not going to make this an exhibit because I just brought my copy. It's the experts' disclosure of Union Carbide in this case, and served on February 1994.

(Discussion off the record)

MR. BROWNSON: The copy.

(Discussion off the record)

MR. BROWNSON: Let's make this page Exhibit 8. Back on the record. I will make an exhibit of this page. We will mark this Exhibit 8. Disclosure by counsel to Union Carbide in this case.

(Disclosure by counsel to Union Carbide marked as Exhibit 8 for identification, as of this date.)

BY MR. BROWNSON:

Q. Have you had a chance to read Exhibit 8?

A. Very quickly, yes.

Q. Why don't you just take a moment to

1

Lewinsohn

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2 read through it and I will ask you some questions
3 about it.

4 A. All right.

5 Q. First of all, have you had a chance
6 to review any materials relating to the Conwed
7 plant at the present time?

8 A. No.

9 Q. Have you been advised that you will
10 be shown any materials with respect to the Conwed
11 plant.

12 A. No.

13 Q. It also indicates in the disclosure,
14 you may review materials or review materials
15 relating to Calidria asbestos.

16 Can you describe for me what
17 materials you reviewed relating to Calidria
18 asbestos?

19 MR. GERSON: During what time?

20 MR. WILL: Since he left Union
21 Carbide.

22 Q. Well, asking the question generally.
23 Let me break the question down.

24 Have you reviewed any mineralogical
25 reports, articles, literature, analyses of

1

Lewinsohn

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2

Calidria asbestos at any time?

3

A. Yes.

4

Q. And can you tell us what it is that

5

you reviewed?

6

A. Not specifically, but I have

7

reviewed, particularly while I was at Union

8

Carbide, various reports that came my way from

9

time to time on those particular subjects.

10

Q. And do you recall any of them being

11

from Dr. Mumpton, reports from Dr. Mumpton?

12

A. I had seen a report from Dr. Mumpton.

13

I can't say I reviewed it. I know of

14

its existence.

15

Q. As far as any opinions you would be

16

prepared to offer, as you sit here today,

17

concerning Calidria asbestos, would it be fair to

18

say then that those opinions would not be based

19

upon the writings of Dr. Mumpton, or would they

20

be?

21

A. Well, if I was going to be questioned

22

as a witness about my opinions on Calidria

23

asbestos, I would prepare myself for that.

24

And at this moment in time, I can't

25

tell you what particular writings I would refer to

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2 in order to do that.

3 If there were writings by Dr. Mumpton
4 that were relevant, yes, I would look at them and
5 review them.

6 Q. But in order for you to render
7 opinions about Calidria asbestos, would it be fair
8 to say you would have to go back and review
9 writings by Dr. Mumpton?

10 In other words, you don't have those
11 in mind as you sit here today, do you?

12 A. I don't have any particular reference
13 in mind as I sit here today.

14 Q. Are you familiar with Robert Woolery?

15 A. I don't know.

16 Q. Do you recall having ever reviewed a
17 paper authored by Dr. Woolery called, "Asbestos in
18 the Paper Making Process"?

19 A. Not offhand.

20 Q. Let's go back to the subject of
21 Calidria asbestos.

22 In your mind, is there any
23 distinction -- strike that. Let me back up.

24 Are you familiar with the fact that
25 the Calidria brand asbestos sold by Union Carbide

1

2 comes from this deposit in New Idria, California?

3

A. Yes.

4

Q. I-d-r-i-a?

5

A. Yes.

6

Q. Have you ever been there at the mine?

7

A. I have been to the King City mine.

8

Q. You have been to the mine in King

9

City or the mill?

10

A. The mill.

11

Q. Have you ever been up to the mine up

4

12

on the mountain?

13

A. No.

14

Q. Now are you familiar with the fact

15

that there is at least two other, or have been

16

historically at least two other operating mines in

17

that deposit, one by Atlas Asbestos and one by

18

Johns-Manville?

19

A. I think I may have heard that there

20

were.

21

Q. And in your mind, do you know of any

22

distinction between the asbestos mined in those

23

three mines?

24

A. No.

25

Q. As far as you know, do you consider

1

Lewinsohn

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2 that to be the same asbestos?

3 A. From my perspective and from my
4 knowledge, yes.

5 Q. Going back to the Calidria asbestos,
6 have you seen any medical record or medical data,
7 or medical information concerning miners at the
8 Calidria mine?

9 MR. WILL: Are you talking about the
10 Union Carbide mine?

11 MR. BROWNSON: Right.

12 A. Well, I am not quite sure how best to
13 answer that question, because mining really
14 utilized very few people as I understand it.

15 And in my review that I undertook at
16 one time, they, King City Mill, I don't know
17 whether, without looking to see what people's
18 occupations were, whether I also reviewed miners.

19 But there were very few miners, to my
20 understanding, because of the nature of the mining
21 process.

22 Q. O.K. And would it be fair to say
23 that, over the years, there has really only been a
24 relatively handful of people who actually worked
25 up at the mine?

1

Lewinsohn

250

2

A. That is what I understood. Yes.

3

Q. And when you have reviewed such

4

medical information as you have seen about Union

5

Carbide employees in King City, you didn't

6

specifically break out and review the miners as a

7

separate group, did you?

8

A. I don't believe I did.

9

Q. Now, let me broaden the question and

10

ask you, have you ever reviewed the medical

11

record, reports, or medical information concerning

12

employees at any of the King City facilities, the

13

mine, the mill, the truckers, any of the employees

14

associated with that asbestos production facility?

15

A. Shortly, I think I told you this last

16

time, shortly before --

17

MR. WILL: Are you asking

18

differently than what you covered before?

19

Go ahead.

20

A. I think I told you this last time.

21

That is that shortly before the buyout by the

22

management of the King City Mine & Mill, I went to

23

King City and reviewed, I think, without seeing my

24

report, I don't know the exact numbers now, but I

25

think about 100 individuals' x-rays to determine

1

Lewinsohn

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2

whether there were any obvious asbestos related

3

changes noticed in those films.

4

That was the only review I made.

5

Q. O.K. And just so I am clear on this,

6

what you reviewed then was the actual x-ray films?

7

A. I reviewed, I went down there, and I

8

went to the local hospital, where the x-rays had

9

been taken. And they made available to me from a

10

list that was provided by the mine, by the mill,

11

rather, the x-rays of workers.

12

And I am not quite sure what the

13

relation was of the workers that I reviewed. And

14

I looked, if I remember correctly, I looked at the

15

first available x-ray, I looked at the last and

16

most recent x-ray, and I probably looked routinely

17

at the one before that.

18

And if I had any suspicions, I would

19

look back further.

20

Q. Other than looking at the x-ray

21

films, did you see any other medical record or

22

medical information concerning workers?

23

A. Not at this moment in time that I can

24

remember.

25

Q. Have you ever seen any medical

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2 record, medical reports, medical information, or
3 x-rays, concerning any workers at either the
4 Johns-Manville or the atlas facilities at New
5 Idria, California?

6 A. No.

7 Q. Have you ever heard or been told what
8 the health experience of those workers has been?

9 A. No. I am not aware of the health
10 experience of those workers.

11 Q. Going back to your review of the
12 x-rays of the workers at the King City asbestos
13 facility, do you know whether these x-rays that
14 you reviewed included the x-rays of all workers
15 who worked at the mine and mill at King City since
16 the production started in 1963?

17 A. I honestly don't remember what the
18 selection criteria were.

19 I would have to look at my report,
20 which I assume, which I hope will be able to
21 enlighten me on that.

22 But at this moment in time, I just
23 don't remember the selection criteria. I am
24 sorry.

25 Q. Do you have a copy of the report?

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Lewinsohn

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A. I do, but not with me.

Q. I would like to get a copy of the report, Dr. Lewinsohn's report of his x-ray review.

MR. WILL: We will take it under advisement.

Q. First of all, would the report tell us, if we looked at it, if it included all workers who had worked at the mine and mill since production began?

A. It should tell you which workers were looked at.

Q. Do you remember if there was any breakdown by occupation among those workers?

A. To the best of my recollection, there was no breakdown by occupation.

Q. Was this a reading which was a blind type of reading --

A. Yes.

Q. -- where you just had a bunch of films and you didn't know, before you read them, where these people had worked in particular?

A. Correct.

Q. Did you become aware of that

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Lewinsohn

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2 information after you read the films?

3 A. I don't believe so.

4 Q. Now I take it, you have toured the
5 mill at King City?

6 A. On that occasion, when I went down
7 there, yes.

8 Q. And when was that again? About '85?

9 A. Just before the buyout took place,
10 the divestiture.

11 Q. Do you recall, when you toured the
12 mill on that occasion in about '84, '85, '86, in
13 that time period, were you shown the area where
14 the baggers worked in that mill?

15 A. I saw all the operations at that
16 mill.

17 Q. And do you know if your report of the
18 x-rays you reviewed of those workers would tell us
19 which of the workers worked in the bagging area?

20 A. I don't think so.

21 Q. Do you recall that information ever
22 coming to your attention?

23 Do you recall learning, in connection
24 with your review of x-rays, which of those workers
25 had worked in the bagging area?

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Lewinsohn

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2

A. No.

3

Q. So as far as you know, that is

4

something that was never specifically looked at

5

separately or broken out?

6

A. I didn't do it. I don't know whether

7

anyone else did.

8

Q. In addition to the x-rays that you

9

looked at personally, did you review any other

10

data concerning the King City workers, that is,

11

reviewed by any other doctors, any other record

12

concerning the health of the King City workers?

13

A. I don't think so.

14

Q. Do you know whether any of the

15

workers at King City Hospital, x-rays you looked

16

at, had been exposed to levels of asbestos in

17

their employment that exceeded the OSHA level, or

18

whether they were all below the OSHA level?

19

A. I can't answer because I don't think

20

that any correlation was done between dust levels

21

and occupation.

22

Q. In connection with your review of the

23

x-rays, did you see any dust level or exposure

24

data?

25

A. I don't believe.

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Q. Do you know if you have ever seen any dust level data in the King City mine or mill?

A. At this moment in time, I don't remember.

Q. Do you know if you have ever seen any dust level or exposure data from either the Atlas one, or the Johns-Manville mines in that same asbestos deposit?

A. I don't believe I would have had any reason to.

Q. Have you seen any dust level or exposure data from any workers in plants similar to the Conwed plant, customer plants, where the Calidria asbestos was used in manufacturing processes?

A. Again, I must answer, I don't remember.

Q. Are you familiar with a program that Union Carbide undertook, beginning in about '72, '73, where they would send industrial hygienists out to Calidria customers' plants and take air samples?

A. I didn't join Carbide until '82. So I don't know about that.

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Lewinsohn

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2

Q. I understand that.

3

But in connection with your work at
4 Union Carbide, did you become familiar with that
5 program?

6

A. Not specifically, no.

7

Q. And do you recall ever reviewing data
8 generated by that program, that is, dust counts
9 done at plants of customers using Calidria
10 asbestos?

11

A. No. I don't.

12

Q. In connection with your work at any
13 time, whether at Union Carbide or since that time,
14 have you ever seen the medical records, medical
15 reports, x-rays, or medical information concerning
16 workers at customers plants who used Calidria
17 asbestos in manufacturing processes?

18

A. I really don't know.

19

From time to time, people like Alan
20 Gerson would contact me for my thoughts or my
21 opinions on a particular case.

22

But that is as far as it went.

23

Q. Have you ever done a review of a
24 group of workers similar to what you did at the
25 King City x-rays from a customer plant where you

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Lewinsohn

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2 looked at a large number of x-rays?

3 A. No.

4 Q. So what you have done is done some
5 consulting with Union Carbide lawyers on a
6 particular lawsuit involving a particular worker?

7 A. From time to time, yes.

8 Q. And did you do that work while you
9 were at Union Carbide, or is that the work you
10 have done since you left Union Carbide?

11 A. No. I have done that at Union
12 Carbide.

13 Q. And since you have left Union
14 Carbide, have you done any of that consulting in
15 connection with cases of workers who claim to have
16 been exposed to Calidria asbestos at some
17 customers' plants?

18 A. I don't know.

19 Q. In terms of the consulting or the
20 review that you have done in connection with
21 particular cases of workers here and there, do you
22 know if any of those have involved a Conwed worker
23 from the Conwed plant in Cloquet, Minnesota?

24 A. That I don't remember.

25 Q. Would you happen to remember actual

1

Lewinsohn

259

2 names of any of those people?

3 A. No.

4 Q. If I threw a couple of names at you
5 of Conwed workers --

6 A. You could try.

7 Q. O.K. I will give you the name of
8 James Manisco.

9 A. That doesn't ring a bell.

10 Q. Is that a case you looked at in any
11 way?

12 A. It doesn't ring a bell.

13 Q. Have you ever seen any published
14 data, whether it was in your review of literature
15 or anywhere else, about any surveys or reviews or
16 studies of any group of workers in any plant
17 setting that used Calidria asbestos?

18 A. Not that I am aware of.

19 Q. Are you aware if any such published
20 data exists?

21 A. No.

22 Q. At the time you were at Union
23 Carbide, did you ever make any recommendations of
24 any type that any such survey be done of workers
25 in plants where Calidria asbestos was used?

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Lewinsohn

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2

A. I, personally? No.

3

Q. Are you aware of anyone at Union

4

Carbide, at any time, I guess up to the present

5

time, as far as you know, suggesting or initiating

6

any review or survey of workers in customer plants

7

where Calidria asbestos was used?

8

A. No.

9

Q. Did it ever come to your attention

10

that anyone else outside of Union Carbide was

11

proposing or actually engaging in any such surveys

12

of workers in customer plants where Calidria

13

asbestos was used?

14

A. No.

15

Q. Are you familiar with the

16

International Paper Workers Union? Have you ever

17

heard of them?

18

A. Not really, no.

19

Q. You have never done any work for them

20

in any connection, I take it?

21

A. No.

22

Q. Have you ever seen any of the --

23

strike that.

24

Have you ever heard that the

25

International Paper Workers Union did a screening,

1

Lewinsohn

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2

a medical screening, with x-rays, and other

3

reviews, of workers at the Conwed plant who used

4

Calidria asbestos?

5

A. I don't know.

6

The reason I am hesitating is because

7

I can remember, some time back, seeing a brief

8

report in the Bureau of National Affairs of the

9

Occupational Health Reporter, that publication,

10

which related to Conwed workers. But I don't

11

remember the context of it.

12

Whether that referred to it or not, I

13

do not remember.

14

Q. Do you recall if that came to your

15

attention while you were working for Union

16

Carbide, or is that something you saw since that

17

time?

18

A. I don't know.

19

Q. At the time that report in the

20

Reporter came to your attention, did you know that

21

the Conwed workers had been exposed to the

22

Calidria asbestos?

23

A. I don't know when that report came to

24

my attention.

25

I can't answer that.

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Q. As you sit and think about it now, do you recall if the report said anything about the type of asbestos to which those workers were exposed?

A. No. I am sorry I raised it. It was just from my memory. I remembered seeing it.

Q. Do you recall ever seeing or reviewing a report by the Minnesota Department of Health concerning the Conwed workers at the Cloquet, Minnesota plant?

A. No, I had not.

Q. And while you were at Union Carbide, do you know if you were ever contacted, or did you ever discuss with any other researchers whether from the Minnesota Department of Health or Paper Workers Union or anywhere else, concerning any surveys or reviews of workers at the Conwed plant?

A. No.

Q. Looking back now at Exhibit 8, the disclosure.

First of all, have you ever seen this particular disclosure before the deposition here today?

A. No.

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Q. If you look in the first paragraph, it says, "Dr. Lewinsohn may be asked to give opinions about the ability of Calidria asbestos to cause diseases in workers under the conditions," I am sorry, "under the conditions during which it was used at the Conwed plant."

Do you see that reference?

A. I do.

Q. And is that an opinion that you would be prepared to give in this case, as far as you know?

MR. GERSON: At this time?

MR. BROWNSON: Well, yes.

A. Not at this moment in time, no.

Q. In order for you to give that opinion, what further information would you need to review?

A. I would need to review all the information pertaining to the use of Calidria asbestos in the Conwed plant, the circumstances under which it was used, any relevant industrial hygiene surveys that were conducted, any health record of employees that were available. And, in general, review the literature available on

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Lewinsohn

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2 Calidria asbestos.

3 It would require preparation.

4 (Telephone interruption)

5 (Recess)

6 BY MR. BROWNSON:

7 Q. Dr. Lewinsohn, you just told us, in
8 order to render an opinion about the ability of
9 Calidria asbestos to cause disease in workers
10 under the conditions used in the Conwed plant, you
11 would need to review a number of different things.

12 I understood you would not be able to
13 render an opinion without reviewing those
14 materials. Is that correct?

15 A. Not necessarily correct. If I were
16 to render an opinion specifically related to those
17 circumstances involving that particular group of
18 employees, I would need a lot more information.

19 Q. O.K. Are you prepared to render any
20 opinions, in general, concerning Calidria asbestos
21 and its ability to cause disease in workers in
22 manufacturing plants?

23 A. I think so. Yes.

24 Q. Can you tell us what your opinions
25 are in that regard about the ability of Calidria

1

Lewinsohn

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2

asbestos to cause disease among workers in

3

manufacturing plants?

4

A. Yes. In my opinion, Calidria

5

asbestos is unlikely to cause the asbestos-related

6

diseases which have been described in connection

7

with the use of other asbestiform minerals.

8

Q. Are you saying -- strike that.

9

Let's take the disease of asbestosis.

10

I am talking now about clinical asbestosis which

11

would show up on an x-ray as interstitial

12

fibrosis. Okay?

13

A. Yes.

14

Q. Is it your opinion that Calidria

15

asbestosis unlikely to cause that disease among

16

workers in a manufacturing plant?

17

A. In general, yes, that is my opinion.

18

Q. Now is your opinion is based, in

19

part, upon the dose of Calidria which would be

20

required to cause such a disease?

21

A. It's based in part on that, but it's

22

based largely, I think, on the fact that this

23

fiber is so different from the other fibers which

24

have been associated with the disease.

25

Q. Well, let me ask you some questions

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Lewinsohn

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2 about that.

3

First of all, you are not saying, are you, that Calidria is absolutely unable, under any circumstances, to cause asbestosis among workers?

6

A. No. I said unlikely.

7

I don't believe that I could make that statement that, under any circumstances, would not cause disease.

10

Q. O.K. So as I understand your opinion, what you are saying is Calidria is less likely to cause the disease asbestosis than other asbestos type fibers in the setting of a manufacturing plant where workers are using it?

15

A. Depending upon the working conditions, and the exposure of those workers, yes.

18

Q. And let me ask you this question.

19

All other things being equal, in terms of working conditions and exposure, are you saying that Calidria is less likely to cause asbestosis than other types of asbestos?

23

A. I think so, yes.

24

Q. And would you agree that the converse of that also is true, that if Calidria is used

25

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Lewinsohn

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2 where there are higher levels of exposure and more
3 dusty working conditions that it could be more
4 likely to cause diseases than some other types of
5 asbestos at lower exposure?

6 A. I don't follow that argument.

7 Q. Well, let me ask you this question.

8 Would you agree with me that if
9 people using Calidria asbestos were exposed to
10 enough of it for long enough in a manufacturing
11 plant, they could get asbestosis?

12 A. I would say that if the exposure were
13 overwhelming, and were of such magnitude as to
14 overwhelm the primary defense mechanism that the
15 human body has to prevent that type of fiber from
16 causing health effects, then under such
17 circumstances, it would be possible to develop
18 pulmonary fibrosis.

19 Q. In laymen's terms, asbestosis?

20 A. Asbestosis.

21 Q. Now, as I understand your opinion,
22 what you are saying is that the Calidria asbestos
23 is different than other types of asbestos, which
24 makes it less likely to cause asbestosis, is that
25 correct?

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Lewinsohn

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A. I think so.

3

Q. Now what are the specific differences

4

which, in your view, make it less likely to cause

5

asbestos-related disease?

6

A. It's basically the physical property,

7

you know, the fiber is a fibril. It is not a

8

bundle of fibril. But fiber itself is fibril.

9

It's very short, by which I mean it's

10

usually around about 5 microns in length, and it's

11

of small diameter.

12

Such fibers, are readily engulfed by

13

the macrophages, which are the scavenger cells in

14

the lungs, and can be eliminated from the lungs,

15

either in sputum or through the lymphatic chain.

16

Or even if swallowed would be eliminated through

17

the gastroenterosinal tract.

18

So the possibility for these fibers

19

to dwell for long enough in the lungs to produce

20

their fibrotic effect, I think is vastly

21

diminished by the physical properties of the

22

fiber.

23

Q. So what you are saying is because of

24

the physical characteristics of these fibers being

25

short, small diameter, they are more easily

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Lewinsohn

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2 cleared out of the lungs?

3 A. I think so. Yes.

4 Q. And would you agree that if, in a
5 given case, they were not cleared out of the
6 lungs, and they remained in the lungs in
7 sufficient quantities, then they could cause
8 disease?

9 A. For long enough?

10 Q. Right.

11 A. That is your guess is as good as mine
12 under those circumstances.

13 Q. Well --

14 A. I can't give you a definitive answer.

15 Q. Have you ever seen lung tissue fiber
16 burdened studies or analyses of workers exposed to
17 Calidria asbestos?

18 A. No.

19 Q. So as you sit here today, do you have
20 any actual data or information as to what the lung
21 tissue Calidria fiber burden is in workers exposed
22 in manufacturing plants?

23 A. No. I don't know that anybody has.

24 Q. And you have anticipated my next
25 question.

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Lewinsohn

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Are you aware of any of any such
information in the possession of anyone at Union
Carbide?

A. No.

Q. And are you aware of any studies
Union Carbide or people on behalf of Union Carbide
have ever undertaken to try to find that out, do
lung tissue fiber burden studies of people exposed
to Calidria in manufacturing plants?

A. I am not aware of that.

Q. Have you seen any published data on
that point?

A. No.

Q. I am going back through this
disclosure here of your opinions, Exhibit 8.

One of the things it says you will
make comment on is the scientific literature
regarding the ability of chrysotile and short
fibered chrysotile to cause disease.

I take it, that is generally what we
were just talking about?

A. Generally, yes.

Q. Are you aware of any particular
scientific literature that discusses the ability

1 of Calidria asbestos fiber to cause disease?

2 A. No. At this moment in time, I am not
3 aware of that.

4 Q. And are you aware of any literature
5 that discusses the ability of the New Idria
6 asbestos fiber in general, whether it came from
7 one of these other two mines of Atlas or
8 Johns-Manville, to cause disease?

9 A. Again, I must say that as I sit here
10 now, I can't give you any specific instance.

11 Q. Now, it also says on this disclosure
12 statement 8, that you may be asked about the
13 appropriateness of steps taken by Conwed
14 management, from an occupational health
15 standpoint, in light of the knowledge available to
16 them.

17 I take it, as you sit here today, you
18 have no specific information as to what knowledge
19 was available to Conwed and what steps they took?

20 A. No. I have had no preparation
21 whatever for my -- by Union Carbide counsel for
22 any testimony I would offer.

23 Therefore, I haven't been provided
24 with all the facts in this case.

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Q. Let me back up a little bit.

When you told us earlier about your general opinions that Union Carbide asbestos is less dangerous than some other types, because you gave us a number of factors, you said the fact that it's fibril, short, small diameter, in your view does the pelletized form of the asbestos bear any relationship to its abilities to cause disease?

A. I would say it does, in that the pelletized form of asbestosis is likely to be far less dust producing than loose fibers being pelletized.

Q. Do you know if that is why Union Carbide pelletized the Calidria in the first place, to make it less dusty?

A. I don't know why they selected that method of producing their final product, whether it was health represented or whether that was the most appropriate way in which to package it.

Q. Have you seen any experiments that anyone at Union Carbide did where Calidria asbestos was placed inside a closed chamber to create an aerosol or a dust to determine how dusty

1

2 it might be?

3

A. I don't recollect seeing that.

4

Q. Do you have any specific data in terms of the dustiness of Calidria asbestos in an experiment of that type, or where someone actually tests to see what sort of dust it will produce?

8

A. I don't. No.

9

Q. Have you seen any experiments showing the relative dustiness of pelletized versus non-pelletized Calidria asbestos?

12

A. No.

13

Q. Would you agree with me that whatever advantage there is to the pelletized form of the Calidria asbestos in terms of being less dusty, that that advantage is lost once the pellets are opened and fiberized?

18

A. Once they are opened and fiberized, could you tell me what you mean by that?

20

Q. Well, if the pellets are crushed and broken apart so they are no longer pellets, but now they are just loose fiber?

23

A. Obviously, if you take pellets and crush them and fiberize them, you are reducing them back down to a state of being fibril, which

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Lewinsohn

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2 if they were allowed to escape into the air, would
3 be dustier than lying there compacted in pellets.

4 Q. O.K. Do you recall ever seeing any
5 information or data about the shipping of Calidria
6 asbestos in terms of broken bags, if whether the
7 bags break, if so, how many, that sort of thing?

8 A. No. I have no information on that.

9 Q. Do you recall ever seeing any
10 information of complaints by customers that when
11 they received Calidria asbestos, that bags were
12 broken and it was dusty, that sort of thing?

13 A. No.

14 Q. Looking at Exhibit 8, the disclosure
15 as to things you might testify, it also says you
16 might be asked to give an opinion as to the extent
17 to which alleged health problems in former Conwed
18 workers are attributable to factors other than
19 asbestos.

20 Again, I take it, you have no
21 specific information in that regard at the present
22 time?

23 A. That's correct.

24 Q. And as far as you know, have you been
25 asked at this point to educate yourself on that?

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Lewinsohn

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A. I have not.

3

Q. And if you were asked to educate

4

yourself on that point so that you could render an

5

opinion in this case, what information would you

6

need to see?

7

A. I would need to know all the

8

information about the use of the Calidria fiber by

9

Conwed in addition to what other fibrogenetic or

10

carcinogenetic materials may have been present in

11

the workplace at the same time.

12

And whether any admixture of those

13

materials took place in the formulation which went

14

into the final product, which I would like to know

15

what the conditions were under which these other

16

materials were used and the industrial hygiene

17

data relating to them.

18

Q. At the present time, you don't have

19

any information in that regard?

20

A. I don't.

21

Q. Do you know if there is any

22

synergistic effect of any sort between Calidria

23

asbestos and cigarette smoking?

24

A. Calidria asbestos has really not been

25

segregated epidemiologically to any extent that I

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am aware. I have no knowledge that there is any deleterious effect.

Q. So would that mean, in order to render an opinion, like we are just talking about, that you would not be interested in cigarette smoking data among these workers, or would that be something that would interest you?

A. It would interest me because cigarette smoking per se causes lung cancer.

Q. And would it also interest you because it could be possible that there is a synergistic effect between Calidria asbestos and cigarette smoking?

A. I would have to study that.

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

A. I don't think anybody does.

Q. Would you agree that that is a possibility, however, that I guess that would bear study?

A. I guess if Calidria asbestos possesses the ability to damage the lungs, in the same way as other forms of chrysotile asbestos have been shown to do, then it would probably have the same synergistic effect with tobacco smoke as other

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2 forms of chrysotile have.

3

4 But I have no information, no
5 scientific information specifically on that fact
6 relating to Calidria.

6

7 Q. And when you said that in order to
8 render an opinion as to whether health approximate
9 in former Conwed workers are attributable to
10 factors other than asbestos, you would want the
11 information about what other materials these
12 workers were exposed to.

12

13 Can you give me examples of what sort
14 of materials would concern you in that regard?

14

15 A. Well, yes.

15

16 Was Calidria the only asbestiform
17 material that was used in the manufacture of
18 tiles? Were other forms of asbestos used? Were
19 other fibrogenetic dusts present? Silica
20 containing dust, for example.

20

21 Q. These other fibrogenetic -- you have
22 mentioned, first of all, other types of asbestos
23 could be fibrogenetic?

23

24 A. Yes.

24

25 Q. Silica dust could be fibrogenetic?

25

A. Yes.

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Lewinsohn

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Q. I understand, as you sit here today, you have no specific information about the other types of asbestos used at Conwed?

A. That is not strictly true because in conversation, I have gathered that amosite was also used.

Q. So you are aware that some amosite was used at Conwed?

A. I am aware that some was used. I am not sure how or in what quantity.

Q. How about silica? Do you know if any silica was used at Conwed?

A. I don't know.

Q. Other than other types of asbestos and silica, are there other types of fibrogenetic types of dust that you would look for that could be a factor in spreading disease among these workers?

A. There aren't too many other significant fibrogenetic dusts besides those I have mentioned.

Q. Those are really the only two, asbestos and silica?

A. I guess so. Unless some of the

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Lewinsohn

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2 employees happen to be coal miners or coal
3 workers.

4 Q. Coal is a fibrogenetic dust?

5 A. Yes.

6 Q. Black lung disease?

7 A. Right.

8 Q. Are you familiar with the studies by
9 Dr. Demenc and others of textile workers in
10 Charleston, South Carolina?

11 A. Yes.

12 Q. Is it your view, do you have an
13 opinion as to whether the results of those studies
14 have any bearing on or illustrate anything about
15 disease that may occur among Conwed workers as a
16 result of exposure to Calidria asbestos?

17 A. The study in Charleston?

18 Q. Right.

19 A. I don't see what bearing those
20 specifically have.

21 Q. Why do you think they would have no
22 bearing on the experience of workers at Conwed?

23 A. I didn't say they had no bearing.

24 I just don't see what bearing they
25 would have, because the workers in Charleston were

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Lewinsohn

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2

textile workers, using chrysotile fiber, which was

3

totally different from the Calidria fiber in the

4

physical properties.

11

5

Q. Are you aware of Dr. Demenc's study

6

of chrysotile?

7

A. I was the corporate medical director

8

for Raybestos Manhattan at the time those studies

9

took place that was at that plant, and provided

10

Dr. Demenc with the opportunity of going there.

11

Q. You are familiar with the fact there

12

were elevated rates of lung cancer found?

13

A. Certainly. Yes.

14

Q. And it's your view, however, as I

15

understand it, that that cannot be translated to

16

the experience of the Conwed workers because this

17

is a different type of manufacturing process and a

18

different type of chrysotile?

19

A. That is my belief, yes.

20

Q. What is it that is different about

21

the chrysotile in the textile plant in Charleston,

22

South Carolina from what was used at the plant at

23

Conwed?

24

A. The fiber in the textile plant at

25

Charleston is a spinning grade of chrysotile

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2 asbestos, which is mined under very different
3 circumstances and produced under very different
4 circumstances from Calidria asbestos.

5 The fiber itself, in order to be a
6 spinning grade fiber, has to be long and flexible.
7 It has to be very similar to cotton in other
8 respects, so it can pass through the process, the
9 textile process, of opening, carting, spinning,
10 winding.

11 We have gone through all the things
12 that were done with that fiber. Calidria can't do
13 that. Calidria is a little fiber, short thing.

14 Q. Would you say then, if we could try
15 to sum this up in laymen's terms as a general
16 proposition, the longer fibers are more dangerous
17 than the shorter fibers?

18 A. In very general terms, yes.

19 Q. And if we were to try to summarize
20 the difference in general terms between the
21 chrysotile that caused disease in the Charleston,
22 S.C. textile plant, and the Calidria at Conwed,
23 it's your view the chrysotile in Charleston was
24 quite a bit longer and was a spinning grade?

25 MR. WILL: I want to object to the

question.

I don't think the doctor ever concluded that the disease that was caused in Charleston was, in fact, due to the asbestos and not some other compounding factor.

But in any event --

MR. BROWNSON: Okay.

MR. WILL: -- he indicated there was an excess rate of lung cancer found in the study in the plant that was using the long chrysotile.

BY MR. BROWNSON:

Q. I understood you concurred with the conclusion, I guess, generally reached about those workers, that that chrysotile had something to do with the increased rate of lung cancer?

A. I think the way it is said, there was an excess incidence of lung cancer associated with exposure to chrysotile asbestos in the textile plant in Charleston, South Carolina.

Q. O.K.

And what I am trying to do is fill this out in general terms. Maybe it can't be

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2 done.

3 But as I thought I understood it, it
4 is your view that the reason that chrysotile may
5 be associated with more disease than what you, Dr.
6 Lewinsohn, would expect to see with Calidria was
7 because, as a general proposition, of this longer
8 spinning grade of chrysotile, and Calidria is
9 short?

10 A. That is one of the reasons, yes.

11 Q. Is that the main reason?

12 A. It is a very significant reason.

13 Q. Have you seen published fiber size
14 distribution data concerning the chrysotile
15 asbestos at Charleston, South Carolina?

16 A. I want to say probably, but I don't
17 recollect precisely.

18 Q. Have you seen publicized distribution
19 data with respect to Calidria chrysotile?

20 A. Yes.

21 Q. Have you seen such data which has
22 been generated by transmission electromicroscopy?

23 A. I don't remember the details of the
24 fiber size distribution data that I've seen, but I
25 know I have seen it.

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Q. Going back to Exhibit 8, the final area of opinions you might be asked that I would like to ask you about, is what is described here as the role of amosite.

You see that about the middle of the paragraph? It says, "The Role of Amosite"?

A. Yes.

Q. Do you have any opinions as you sit here today as to what role, if any, any amosite asbestos played in the disease of workers at Cloquet?

A. As I sit here today, I don't have any specific opinion but other than to state that amosite is known to result, following adequate exposure, in the development of asbestosis, lung cancer and mesothelioma.

Again, without knowing the specific circumstances surrounding its use at Conwed, I can't venture any further opinion.

Q. Would it be fair to say that one of the things you would need to know is the levels of exposure to amosite dust?

A. Yes. I need to know the levels of exposure to amosite dust.

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Q. Would you agree with me that the relationship between amosite asbestos and disease is dose dependent?

A. The relationship between amosite asbestos, and the production of asbestosis and probably lung cancer, I would say is dose dependent.

I think that the relationship between amosite and development of mesothelioma is also dose dependent, but I think that dose is one which has not yet been determined.

Q. If we can put that opinion in laymen's terms, the greater the dose of amosite asbestos, the greater the relationship between asbestos-related disease and, on the other hand, the less the dose, the less the relationship.

Would that be fair to say?

A. If you define dose as concentration and time, because dose depends upon the concentration and the time, the amount, that of exposure, and the time frame over which that exposure occurs.

Q. So again, to try to put this in laymen's terms, the more amosite asbestos you are

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exposed to for a longer time, the more likelihood
3 there is of asbestos-related disease?

4

A. Well, I hate to be too pedantic.

5

MR. GERSON: You are the expert. Be
6 as pedantic as you want to be.

7

A. The concept is, exposure is the
8 concentration and time. So the dose might be a
9 lower concentration over a longer time, or a
10 higher concentration over a shorter time.

11

Q. O.K. So the two things that are
12 important in determining the dose is the amount of
13 dust a worker is exposed to and how long?

14

A. And how long.

15

Q. O.K.

16

And there is one other factor, and
17 that is, that the development of the disease is
18 often delayed.

19

And so, therefore, there is a lapse
20 interval between the first exposure and the
21 recognition of any health affects.

22

That is what is known as the latency?

23

A. Yes. That is not synonymous with the
24 length of exposure because exposure may have
25 ceased.

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Q. And do you have any opinion as to whether the latency of exposure from amosite asbestos is related to the dose?

In other words, if you get a higher dose, is the latency in any way shortened?

A. I would like to think that would be a simple explanation for it, but I have no scientific evidence or epidemiological evidence to confirm that theory.

Q. The final disease you mentioned of mesothelioma, it's your opinion that mesothelioma is also related to the dose of amosite asbestos, but you don't have information exactly what the dose is that causes mesothelioma?

A. I think the mesothelioma, the jury is still out as to what the level of exposure is required with any of the forms of asbestos to produce that particular form of malignancy.

Q. Is that also true of Calidria asbestos, the jury is still out in your view as to what dose would be necessary to cause mesothelioma?

A. I think jury is still out with Calidria asbestos as to whether it can cause any

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Lewinsohn

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2 form of asbestos-related diseases.

3 Q. In your view?

4 A. In my view.

5 Q. And again, from the time you began at
6 Union Carbide to the present time, did you ever
7 initiate any research or studies to try to answer
8 that question?

9 A. No.

10 (Recess)

11 MR. BROWNSON: We have no other
12 questions.

13 MR. WILL: I have a couple of
14 questions I want to ask.

15 EXAMINATION BY

16 MR. WILL:

17 Q. Mr. Brownson asked you if you were to
18 give an opinion about amosite, the role of amosite
19 in causing a disease in workers, what you would
20 want to know.

21 And you said, one of the things you
22 would want to know was the level of exposure.

23 If there are no dust counts done in
24 the plant when the amosite was in use, would that
25 prevent you from giving opinions about any role

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that amosite may have played?

3

MR. BROWNSON: I am going to object

4

to the form of the question.

5

Go ahead.

6

A. If there are no dust counts?

7

I think it might still be possible to

8

render an opinion, providing there was comparative

9

data available in terms of other measurements that

10

might have been made or in terms of descriptive,

11

descriptions of the dustiness of the operation.

12

Q. Would it be helpful to know how much

13

amosite had been used in a plant, kind of

14

consumption?

15

A. It would be helpful to know, if one

16

also knew how much amosite went into the process.

17

Q. Last time, last time being February,

18

1994, you were questioned by Mr. Brownson about --

19

I want to make sure I characterize this accurately

20

so I don't get an objection.

21

In the February session of your

22

deposition, you were asked a question by Mr.

23

Brownson, the gist of which was that, will people

24

be at risk from getting an asbestos-related

25

disease, even if they were are not working

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2 directly with the asbestos in any product?

3 Do you recall that generally?

4 A. Give it to me again.

5 Q. Well the question, I will refer to it
6 specifically, referring to page 171, and 172 of
7 the deposition, and your answer to the question,
8 which had to do with Dr. Selicoff's statement that
9 asbestos fibers didn't respect job
10 classifications, Mr. Brownson said:

11 "In other words, they could float
12 adrift around in the work area?"

13 And in responding to that, you
14 referenced the work of Dr. Wagner, the work of
15 Molly Newhouse, and a paper by McCaughey, Wade &
16 Elms, and you talked about something that you
17 said, there had been instances of asbestos disease
18 occurring in people that had pure environmental
19 exposure.

20 And my question was, what did you
21 mean when you referred to asbestos-related disease
22 occurring in people with pure environmental
23 exposure? To what were you referring?

24 MR. BROWNSON: I will object to the
25 form.

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Go ahead and answer.

3

A. Yes. There was an awareness that developed that people who had been exposed, living in the vicinity of an asbestos manufacturing facility, or a mine, could also develop the asbestos-related diseases.

8

And the instances that, the two instances that are best known are the domestic exposure that Molly Newhouse described, and then what I would call the environmental exposures that Dr. Wagner has described in the Northwest Province in South Africa, in this little town of Kuruman, and where the mine tailings were used for road building.

16

People paved their driveways with it. School playgrounds were made from this material, tennis courts. It was used for all sorts of purposes.

20

And mesothelioma developed in the community in that little town, who had never ever had any occupational exposure.

23

That is what I would call environmental exposure.

25

Q. What type of asbestos fiber was

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2 involved in Kuruman?

3 A. Kuruman was crocidolite fiber.

4 Q. In your first deposition, Mr.

5 Brownson asked you about the first case of
6 mesothelioma that that you recall seeing.

7 You mentioned that was a person at
8 the Ferrado plant?

9 A. Yes.

10 Q. Do you know the name of that
11 individual?

12 A. Yes. Archibald Vernon.

13 Q. And to what type of fibers had Mr.
14 Vernon been occupationally exposed?

15 A. Mr. Vernon worked at that plant, had
16 been exposed to chrysotile fibers, but he was one
17 of a number of workers who had worked in one area
18 of the plant, where -- and they all worked in
19 close proximity -- where they had manufactured a
20 special, I think it was a railroad brake block,
21 which was for some mid-European country's
22 railroads, that was specifically made out of
23 crocidolite asbestos. He was exposed to
24 crocidolite.

25 Q. You also made reference to the fact

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Lewinsohn

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2 there was some type of ownership relationship
3 between Bell Mines and Turner & Newall.

4 Do you know the specifics of that
5 relationship?

6 A. You mean the business relationship?

7 No. I don't know the specifics.

8 Q. Or the particular legalities of the
9 way it was organized?

10 A. No. I wasn't particularly interested
11 in it.

12 Q. You mentioned something in the first
13 deposition, something called a scheduled area
14 under the asbestos regulations that applied in
15 England after 1931.

16 And briefly, what was the scheduled
17 area?

18 A. I am relying now on my memory of sort
19 of a complex regulatory issues.

20 But as I remember it, the asbestos
21 industry regulations in the United Kingdom were
22 promulgated in 1931 and took effect in 1933.

23 Also, they did not stipulate any
24 exposure levels or regulate any particular
25 processes, as far as I can recollect. They also

1
2 didn't stipulate any medical surveillance that
3 should be conducted.

4 But at the same time those
5 regulations took effect, the silicosis and
6 asbestosis medical arrangement team of 1931 was
7 introduced. And the silicosis medical boards,
8 which subsequently became like pneumoconiosis,
9 like pneumonia, pneumoconiosis panel, had the
10 responsibilities for conducting medical
11 surveillance examinations on asbestos workers and
12 the way in which the asbestos workers were, who
13 they were to examine were categorized according to
14 the type of work they did and the areas in which
15 they worked.

16 And so those areas, which came under
17 the surveillance of the pneumoconiosis medical
18 panel were the scheduled areas.

19 Q. For example, in the Turner & Newall
20 Rochdale plant, was the entire plant where
21 asbestos was used considered a scheduled area?

22 MR. BROWNSON: I object to the form
23 of the question.

24 A. No.

25 Q. And were all of the workers in the

1

Lewinsohn

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2 entire plant required to be monitored?

3 MR. BROWNSON: I object to the form.

4 A. Not by the pneumoconiosis medical
5 panel, no.

6 Q. For asbestos?

7 A. For asbestos. Right.

8 Q. Finally, whose responsibility was it
9 to see that the regulations were followed in
10 England in the Rochdale plant.

11 A. Whose responsibility?

12 Q. Under the British regulations, what
13 entity had the responsibility for seeing that the
14 asbestos regulations were complied with?

15 A. That was a factory inspection.

16 Q. Was it the job of, I mean which
17 private entity was the company charged with that?

18 MR. BROWNSON: I will object to the
19 form.

20 I think he has already answered.

21 Q. Is the factory inspector an arm of
22 the government?

23 A. Yes.

24 Q. They were in charge of enforcing the
25 regulations?

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Lewinsohn

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A. Correct.

3

Q. What private entity had

4

responsibility for complying with the regulations?

5

A. The employer.

6

MR. WILL: Thank you.

7

MR. GERSON: Wait a minute.

8

(Discussion off record)

9

BY MR. WILL:

10

Q. Mr. Brownson asked you questions

11

about the fact that there were three mines in the

12

New Idria area, J-M, Atlas and Union Carbide.

13

And you indicated that, as far as you

14

were concerned, there was no difference between

15

the mines, is that correct?

16

A. Yes.

17

Q. Now my question is, do you know, for

18

example, what processes were used at the other

19

mines?

20

A. No.

21

Q. Have you ever done any studies to see

22

whether there were any differences between the

23

fibers from the other mines and the Union Carbide

24

fiber?

25

A. No.

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Q. Do you know, in terms of the health history, at Johns-Manville and Atlas, do you know what process was used in the milling that was done at Johns-Manville or Atlas?

A. No.

Q. Did you understand that Union Carbide used a wet mill process?

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

MR. WILL: I will withdraw the question.

Q. Is it possible that the method of milling used at Atlas or Johns-Manville would have some impact on the health history of its employees?

A. I would have to know what the method of milling was.

I can't answer.

Q. Let me ask the question a little differently.

Would the industrial hygiene practices followed have some impact on the health history of the workers?

A. (No verbal response).

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Q. You don't know anything about it?

A. No.

Q. All right. I will withdraw that question.

To your knowledge, was any tremolite ever found in Calidria asbestos?

A. Not to my knowledge.

Q. Would that have any impact on its ability to cause disease vis-a-vis other types of chrysotile?

A. It is my understanding that the recent medical literature reports have appeared which indicate that asbestos which is contaminated with tremolite is more likely to be the cause of lung cancer and mesothelioma and possibly other asbestos-related effects.

Q. Are you talking about chrysotile asbestos?

MR. BROWNSON: Objection to the form.

A. I am talking about chrysotile asbestos which is not pure and which may have been contaminated by tremolite.

MR. WILL: That is all.

BY MR. BROWNSON:

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Lewinsohn

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2

Q. Dr. Lewinsohn, you said there have

3

been recent reports in the medical literature

4

saying asbestos contaminated with tremolite might

5

be more dangerous than asbestos without tremolite.

6

Are you aware of any reports which

7

have actually compared the two, asbestos with

8

tremolite, and asbestos without tremolite?

9

A. No. I think I misspoke. I shouldn't

10

have said it in that manner.

11

The reports indicate -- let me just

12

think a moment.

13

MR. GERSON: Take your time.

14

A. What I am trying to say is that the

15

reports in the recent literature indicate that

16

chrysotile asbestos contaminated with tremolite

17

has been found to be the most probable cause of

18

malignancies that have arisen in workers exposed

19

to that type of fiber.

20

Q. And are you aware that reports have

21

also appeared in the medical literature that have

22

said that tremolite is not a factor and that it's

23

the chrysotile itself that causes the disease?

24

MR. GERSON: I object to form.

25

A. I haven't seen that.

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Q. Are you aware of a paper by Dr.

3

William J. Nicolson and Philip L. Andrigan, of

4

Mount Sinai, which takes that position, published

5

in 1994?

6

A. I haven't seen that.

7

Q. Let me just ask you a couple of other

8

things.

9

You mentioned earlier, Mr. Will asked

10

you about the first worker you ever saw when you

11

were back at England that had mesothelioma.

12

What was the name of that worker?

13

A. Mr. Archibald Vernon.

14

Q. Archibald Vernon?

15

A. V-e-r-n-o-n.

16

Q. And you said that Mr. Vernon was

17

exposed to crocidolite asbestos during his work?

18

A. Yes.

19

Q. Is it also true he was exposed to

20

chrysotile asbestos?

21

A. Yes, I said that.

22

Q. Do you know if the chrysotile

23

asbestos which Mr. Vernon was exposed to contained

24

tremolite or not?

25

A. No. I don't.

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Q. You mentioned a minute ago about
3 these British asbestos regulations.

4

I believe you told us that these went
5 into effect in 1931?

6

A. They were promulgated in 1931. They
7 took effect in '33.

8

Q. And at that time, was the government
9 agency in England, called the factory inspector,
10 charged with going around the different factories
11 and enforcing the asbestos regulations in England?

12

A. Yes.

13

Q. And when you came to Union Carbide, I
14 think in '82 --

15

A. '82.

16

Q. -- were you aware that Union Carbide
17 at that time had British subsidiaries?

18

A. At that time? No.

19

I probably learned about them
20 subsequently.

21

Q. Did you learn that Union Carbide had
22 had British subsidiaries going back historically
23 before that time?

24

A. I don't understand what you mean.

25

Q. Well, did it come to your attention

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2 that Union Carbide had a subsidiary called Union
3 Carbide U.K. that it had owned for some years
4 before 1982?

5 A. I assumed that they had owned it for
6 some time.

7 Q. Do you know how long they had owned
8 it?

9 A. No.

10 Q. Do you know that it was at least back
11 into the 1960's, if not before?

12 A. I don't know.

13 Q. Did you ever see, while you were at
14 Union Carbide, did you ever see any letters or
15 reports from the Union Carbide subsidiary in
16 England called Union Carbide U.K. that came back
17 to the medical director's office at Union Carbide
18 in New York City about asbestos and health?

19 A. I know I saw some. There was some
20 correspondence that took place when I was at Union
21 Carbide with that entity, but I don't remember
22 what it was in relationship to.

23 Q. Do you know if it had anything to do
24 with asbestos and health?

25 A. I don't remember.

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Q. Do you have any information at the present time as to the type of amosite used at Conwed?

5

A. Type?

6

Q. Type. Where it came from?

7

A. I am aware amosite only comes from one place.

9

Q. That is South Africa?

10

A. From the Northeastern Transvaal in South Africa.

12

Amosite stands for Asbestos Mines of South Africa. It is an acronym.

14

Q. So your understanding is amosite would have come from South Africa?

16

A. Yes.

17

Q. Do you know what grade it was?

18

A. No.

19

Q. And do you know, do you have any information at the present time as to the time period that this amosite was purchased by Conwed for its use out there and the amount?

23

A. No.

24

Q. You mentioned a minute ago, in response to a question by Mr. Will, about these

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Lewinsohn

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environmental exposures to asbestos down in South
3 Africa.

4

5

6

7

Have you ever seen any published
studies in this country about environmental
exposures in the U.S. to spouses of workers in
asbestos plants, manufacturing plants?

8

A. Yes.

9

10

Q. One of those Tunarco plants in
Patterson, New Jersey?

11

A. That wasn't one that I have seen.

12

Q. Which ones can you recall?

13

14

A. I can recall a publication I was
involved in, in Raybestos, Manhattan.

15

16

17

18

Q. And in that particular study, was
there any disease at all shown among the spouses
of the workers in the Raybestos Manhattan plant
related to asbestos?

19

20

21

22

A. We thought that we had, my co-worker
and I thought that we found some cases of
relatives who had lived with a worker who had
worked in that Raybestos plant.

23

24

He developed asbestos-related health
factors.

25

Q. Which particular Raybestos plant was

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2 this?

3 A. Stratford, Connecticut.

4 Q. And this is published? This is work
5 you did at the time you were working for Raybestos
6 Manhattan Company?

7 A. Correct.

8 Q. Are you aware that the Minnesota
9 Department of Health screened the spouses of
10 Conwed workers at Cloquet, Minnesota to see if
11 they had asbestos-related disease?

12 A. No. I am not.

13 Q. Are you aware of what the current
14 OSHA standard is in the U.S. for exposure to
15 chrysotile asbestos in workplaces?

16 A. It has gone down to 0.1, I believe.

17 Q. Are you aware that it has been
18 reduced to .05 fibers per CC of air?

19 A. Well, then it has just gone down. It
20 has been reduced within the last month.

21 Q. Are you aware of the new OSHA
22 asbestos standards that came into effect in August
23 1994?

24 A. August '94?

25 Q. Right.

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A. That is what we are just referring to.

Yes. I haven't read it.

Q. O.K. And are you aware that that applies equally to chrysotile asbestos as to amosite or crocidolite?

A. Yes. OSHA has never recognized the difference, in spite of the rest of the world having done so.

Q. You are aware that OSHA is the U.S. Government agency that regulates hazards in the workplace like factories?

A. Yes.

Q. And this particular OSHA standard deals with exposure to asbestos in the workplace such as factories that use asbestos in manufacturing processes?

A. Correct.

Q. And I take it that you disagree with OSHA's position as to how they regulate chrysotile asbestos in relation to other fiber types in the workplace?

MR. GERSON: Objection to form.

A. I didn't say that.

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MR. BROWNSON: That is all I have.

EXAMINATION BY

MR. WILL:

Q. Doctor, one follow-up.

To your knowledge, did Union Carbide
U.K. British subsidiary have any involvement with
asbestos?

A. My knowledge?

Q. To your knowledge.

A. At this moment in time, I really
don't know.

MR. WILL: O.K. That is all I have.

MR. BROWNSON: I will say, for the
record, as we have done in the past, I will
take charge of the original transcript and
file it with the court, and then I also
want a copy.

(Continued on next page.)

1 Lewinsohn 308

2 MR. WILL: Dr. Lewinsohn will want
3 to read it and sign the deposition, as he
4 did with his first one.

5 (Time noted: 11:40 a.m.)

6

7 Subscribed and sworn to before me
8 this ___ day of _____, 1994.

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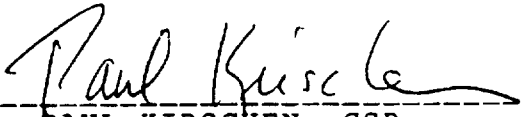
C E R T I F I C A T E

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 27th day of October
1994.



PAUL KIRSCHEN, CSR

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November 18, 1994

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WITNESS

PAGE

5

Hilton C. Lewinsohn (Resumed)

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E X H I B I T S

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EXHIBIT

FOR IDENT.

9

8 Disclosure by counsel
to Union Carbide

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DOCUMENT REQUEST

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(1) IN THE UNITED STATES DISTRICT COURT
 (2) FOR THE EASTERN DISTRICT OF PENNSYLVANIA
 (3) IN RE: ASBESTOS PRODUCTS LIABILITY Civil
 (4) LITIGATION (NO. VI) MDL 875
 (5) This Document Relates to:
 (6) UNITED STATES DISTRICT COURT
 (7) FIFTH DIVISION
 (8) DISTRICT OF MINNESOTA
 (9) CONWED CORPORATION, Plaintiff, 5-92-00
 (10) -against-
 (11) UNION CARBIDE CHEMICALS AND
 (12) PLASTICS COMPANY, INC., (f/k/a
 (13) Union Carbide Corporation),
 (14) -and- Defendant,
 (15) -against-
 (16) UNION CARBIDE CHEMICALS AND
 (17) PLASTICS COMPANY, INC., (f/k/a
 (18) Union Carbide Corporation),
 (19) -against-
 (20) OWENS-CORNING FIBERGLAS CORPORATION,
 (21) et al., WALKER JAMAR COMPANY, A.W.
 (22) KUETTEL & SONS, INC., API, INC.,
 (23) and MacARTHUR COMPANY,
 (24) Third-Party Defendants.
 (25) October 18, 1994
 (26) HILTON C. LEWINSOHN (Cont'd)
 (27)
 (28)
 (29)
 (30)

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(1) Appearances:
 (2)
 (3) KELLY, DRYE & WARREN, ESQS.
 (4) Attorneys for Union Carbide
 (5) 101 Park Avenue
 (6) New York, New York
 (7) BY: ALAN J. GERSOW, ESQ.,
 (8) of Counsel
 (9) -and-
 (10) FOLEY & LARONER, ESQS.
 (11) 777 E. Wisconsin Avenue
 (12) Milwaukee, Wisconsin 53202
 (13) BY: TREVOR J. WILL, ESQ.,
 (14) of Counsel
 (15) STICH, ANGELL, KREIDLER & MUTH, P.A.
 (16) Attorneys for Conwed Corp.
 (17) 250 2nd Avenue South
 (18) Minneapolis, Minnesota 55401
 (19) BY: ROBERT D. BROWNSON, ESQ.,
 (20) of Counsel
 (21) -and-
 (22) RUDWICK & HOLFE, ESQS.
 (23) 203 N. LaSalle
 (24) Chicago, Illinois 60601
 (25) BY: MICHAEL R. GOLDMAN, ESQ.,
 (26) of Counsel
 (27) . . .
 (28)
 (29)

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(1) October 18, 1994
 (2) 9:30 a.m.
 (3)
 (4) Continued deposition of HILTON C. LEWINSOHN,
 (5) taken by Plaintiff, pursuant to adjournment,
 (6) at the offices of Kelley, Drye & Warren, Esqs.,
 (7) 101 Park Avenue, New York, New York, before
 (8) Paul Kirschen, a Certified Shorthand Reporter
 (9) and Notary Public within and for the State of
 (10) New York.
 (11) . . .
 (12)
 (13)
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(1) HILTON C. LEWINSOHN,
 (2) resumed, having been duly re-sworn by
 (3) Paul Kirschen, Notary Public, was
 (4) examined and testified as follows:
 (5) MR. BROWNSON: This is a
 (6) continuation of a prior deposition.
 (7) EXAMINATION (Continued)
 (8) BY MR. BROWNSON:
 (9) Q. Good morning, Dr. Lewinsohn. We are
 (10) continuing the deposition that we left off some
 (11) time ago in this case of Conwed versus Union
 (12) Carbide.
 (13) I would like to try to get this
 (14) finished up this morning. I think we can move
 (15) fairly rapidly here. We can finish this up.
 (16) First of all, you recall the case,
 (17) Conwed versus Union Carbide? Do you have that in
 (18) mind?
 (19) A. Could you just briefly restate it?
 (20) Q. O.K. This is the case involving the
 (21) Conwed ceiling tile plant in Minnesota at which
 (22) various workers have had various asbestos related
 (23) diseases which they allege were as a result of
 (24) their exposure in their plant. Conwed is suing
 (25)

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- (1)
(2) Union Carbide as a result of that exposure. That
(3) is the case.
(4) Does that bring it back to mind?
(5) A. Yes.
(6) Q. Since the first session of your
(7) deposition in this case, have you had a chance to
(8) go back and read your testimony or review it in
(9) any way?
(10) A. Just briefly before this deposition.
(11) Q. O.K. Before we started here today?
(12) A. Right.
(13) Q. Yesterday or something?
(14) A. This morning.
(15) Q. O.K. And have you reviewed any other
(16) materials in connection with the deposition here
(17) today?
(18) A. No.
(19) Q. Since we broke from the first session
(20) of this deposition until today, have you gone back
(21) to review any materials, that came up in the first
(22) session of the deposition to refresh your
(23) recollection or update yourself in any way?
(24) MR. WILL: You mean go back and
(25) reread the exhibits?

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- (1)
(2) MR. BROWNSON: Not necessarily
(3) exhibits to the deposition, but any
(4) materials.
(5) A. Well, I have had another deposition
(6) in another case since this.
(7) I guess a lot of the similar material
(8) to that which we discussed last time was referred
(9) to.
(10) Q. This other case, was this a case
(11) involving asbestos related disease?
(12) A. A case involving Turner & Newall, my
(13) former employer.
(14) Q. And was this a personal injury case?
(15) A. No. This was a property damage
(16) situation.
(17) Chase Manhattan Bank.
(18) Q. O.K. And some lawyer for Chase
(19) Manhattan Bank took your deposition?
(20) A. Yes.
(21) Q. Was that here in New York?
(22) A. Yes.
(23) Q. Do you remember who that lawyer was?
(24) A. I remember the first lawyer's name.
(25) The deposition was in two phases. The first one

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- (1)
(2) was Mr. Connor.
(3) I do not remember the second lawyer's
(4) name. I think it was Mr. Leonard, but I am not
(5) sure.
(6) Q. And when did that deposition take
(7) place?
(8) A. Probably two or three months ago.
(9) Q. And in connection with the
(10) preparation for that deposition, did you go back
(11) and review some materials concerning the workers
(12) at the Turner & Newall plant at Rochdale, or what
(13) were you looking at?
(14) A. I was shown various documents from
(15) Turner & Newall's files.
(16) Q. Let me shift gears to Union Carbide.
(17) Since the last session of your
(18) deposition in this case, have you had occasion to
(19) review any of the materials or any materials which
(20) would pertain to the issue of Union Carbide
(21) Calidria asbestos?
(22) A. No, I haven't.
(23) Q. Have you had occasion, since the
(24) first session of your deposition in this case, to
(25) review any materials on the issue of chrysotile

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- (1)
(2) asbestos, an asbestos related disease?
(3) A. Well, once again, in the course of
(4) preparation and being deposed in the other cases,
(5) that issue has come up, yes.
(6) Q. How would the issue of chrysotile
(7) asbestos and disease come up with the issues in
(8) that case.
(9) Didn't that case involve Olympus?
(10) A. Yes, but one discusses all forms of
(11) asbestos, other phases.
(12) Q. O.K. So in that deposition, did you
(13) testify or discuss all forms of asbestos fiber and
(14) health effects?
(15) A. To the best of my recollection.
(16) Without going back to look at the
(17) deposition, I can't be any more specific
(18) Q. Let me direct your attention to this
(19) particular case, the case of Conwed versus Union
(20) Carbide.
(21) It is my understanding that Union
(22) Carbide intends to elicit from you some opinion
(23) testimony in this case.
(24) Can you tell us as you sit here today
(25) what you understand the opinions are that you

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- (1) would render in this particular case?
 (2) MR. GERSON: I need to object to the
 (3) form of the question.
 (4) We have designated Dr. Lewinsohn as
 (5) a potential witness without committing
 (6) ourselves at this stage. We reserve the
 (7) right to elicit his testimony or not to.
 (8) MR. BROWNSON: O.K. I understand
 (9) that he may or may not be called.
 (10) What I am wondering is - let me
 (11) rephrase.
 (12) MR. WILL: Without the preamble.
 (13) Q. O.K. What I am wondering, Dr.
 (14) Lewinsohn, is do you know as you sit here today
 (15) what opinions you would have to offer in this
 (16) lawsuit?
 (17) A. I have no opinions specifically,
 (18) briefed or informed by Union Carbide as to how
 (19) they would use my testimony.
 (20) Q. O.K. Have you had a chance to read
 (21) the disclosure that counsel for Union Carbide made
 (22) in this case about areas that you might testify
 (23) about?
 (24) A. No.
 (25)

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- (1) read through it and I will ask you some questions
 (2) about it.
 (3) A. All right.
 (4) Q. First of all, have you had a chance
 (5) to review any materials relating to the Conwed
 (6) plant at the present time?
 (7) A. No.
 (8) Q. Have you been advised that you will
 (9) be shown any materials with respect to the Conwed
 (10) plant.
 (11) A. No.
 (12) Q. It also indicates in the disclosure,
 (13) you may review materials or review materials
 (14) relating to Calidria asbestos.
 (15) Can you describe for me what
 (16) materials you reviewed relating to Calidria
 (17) asbestos?
 (18) MR. GERSON: During what time?
 (19) MR. WILL: Since he left Union
 (20) Carbide.
 (21) Q. Well, asking the question generally.
 (22) Let me break the question down.
 (23) Have you reviewed any mineralogical
 (24) reports, articles, literature, analyses of
 (25)

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- (1) Q. Let me just show it to you. I would
 (2) like to run through these things and ask you some
 (3) questions about them.
 (4) And what I am showing the witness, I
 (5) am not going to make this an exhibit because I
 (6) just brought my copy. It's the experts'
 (7) disclosure of Union Carbide in this case, and
 (8) served on February 1994.
 (9) (Discussion off the record)
 (10) MR. BROWNSON: The copy.
 (11) (Discussion off the record)
 (12) MR. BROWNSON: Let's make this page
 (13) Exhibit 8. Back on the record. I will
 (14) make an exhibit of this page. We will mark
 (15) this Exhibit 8. Disclosure by counsel to
 (16) Union Carbide in this case.
 (17) (Disclosure by counsel to Union
 (18) Carbide marked as Exhibit 8 for
 (19) identification, as of this date.)
 (20) BY MR. BROWNSON:
 (21) Q. Have you had a chance to read Exhibit
 (22) 8?
 (23) A. Very quickly, yes.
 (24) Q. Why don't you just take a moment to
 (25)

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- (1) Calidria asbestos at any time?
 (2) A. Yes.
 (3) Q. And can you tell us what it is that
 (4) you reviewed?
 (5) A. Not specifically, but I have
 (6) reviewed, particularly while I was at Union
 (7) Carbide, various reports that came my way from
 (8) time to time on those particular subjects.
 (9) Q. And do you recall any of them being
 (10) from Dr. Mumpton, reports from Dr. Mumpton?
 (11) A. I had seen a report from Dr. Mumpton.
 (12) I can't say I reviewed it. I know of
 (13) its existence.
 (14) Q. As far as any opinions you would be
 (15) prepared to offer, as you sit here today,
 (16) concerning Calidria asbestos, would it be fair to
 (17) say then that those opinions would not be based
 (18) upon the writings of Dr. Mumpton, or would they
 (19) be?
 (20) A. Well, if I was going to be questioned
 (21) as a witness about my opinions on Calidria
 (22) asbestos, I would prepare myself for that.
 (23) And at this moment in time, I can't
 (24) tell you what particular writings I would refer to
 (25)

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- (1)
 (2) in order to do that.
 (3) If there were writings by Dr. Mumpton
 (4) that were relevant, yes, I would look at them and
 (5) review them.
 (6) Q. But in order for you to render
 (7) opinions about Calidria asbestos, would it be fair
 (8) to say you would have to go back and review
 (9) writings by Dr. Mumpton?
 (10) In other words, you don't have those
 (11) in mind as you sit here today, do you?
 (12) A. I don't have any particular reference
 (13) in mind as I sit here today.
 (14) Q. Are you familiar with Robert Woolery?
 (15) A. I don't know.
 (16) Q. Do you recall having ever reviewed a
 (17) paper authored by Dr. Woolery called, "Asbestos in
 (18) the Paper Making Process"?
 (19) A. Not offhand.
 (20) Q. Let's go back to the subject of
 (21) Calidria asbestos.
 (22) In your mind, is there any
 (23) distinction - strike that. Let me back up.
 (24) Are you familiar with the fact that
 (25) the Calidria brand asbestos sold by Union Carbide

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- (1)
 (2) that to be the same asbestos?
 (3) A. From my perspective and from my
 (4) knowledge, yes.
 (5) Q. Going back to the Calidria asbestos,
 (6) have you seen any medical record or medical data
 (7) or medical information concerning miners at the
 (8) Calidria mine?
 (9) MR. WILL: Are you talking about the
 (10) Union Carbide mine?
 (11) MR. BROWNSON: Right.
 (12) A. Well, I am not quite sure how best to
 (13) answer that question, because mining really
 (14) utilized very few people as I understand it.
 (15) And in my review that I undertook at
 (16) one time, they, King City Mill, I don't know
 (17) whether, without looking to see what people's
 (18) occupations were, whether I also reviewed miners.
 (19) But there were very few miners, to my
 (20) understanding, because of the nature of the mining
 (21) process.
 (22) Q. O.K. And would it be fair to say
 (23) that, over the years, there has really only been a
 (24) relatively handful of people who actually worked
 (25) up at the mine?

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- (1)
 (2) comes from this deposit in New Idria, California?
 (3) A. Yes.
 (4) Q. I-d-r-i-a?
 (5) A. Yes.
 (6) Q. Have you ever been there at the mine?
 (7) A. I have been to the King City mine.
 (8) Q. You have been to the mine in King
 (9) City or the mill?
 (10) A. The mill.
 (11) Q. Have you ever been up to the mine up
 (12) on the mountain?
 (13) A. No.
 (14) Q. Now are you familiar with the fact
 (15) that there is at least two other, or have been
 (16) historically at least two other operating mines in
 (17) that deposit, one by Atlas Asbestos and one by
 (18) Johns-Manville?
 (19) A. I think I may have heard that there
 (20) were.
 (21) Q. And in your mind, do you know of any
 (22) distinction between the asbestos mined in those
 (23) three mines?
 (24) A. No.
 (25) Q. As far as you know, do you consider

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- (1)
 (2) A. That is what I understood. Yes.
 (3) Q. And when you have reviewed such
 (4) medical information as you have seen about Union
 (5) Carbide employees in King City, you didn't
 (6) specifically break out and review the miners as a
 (7) separate group, did you?
 (8) A. I don't believe I did.
 (9) Q. Now, let me broaden the question and
 (10) ask you, have you ever reviewed the medical
 (11) record, reports, or medical information concerning
 (12) employees at any of the King City facilities, the
 (13) mine, the mill, the truckers, any of the employees
 (14) associated with that asbestos production facility?
 (15) A. Shortly, I think I told you this last
 (16) time, shortly before -
 (17) MR. WILL: Are you asking
 (18) differently than what you covered before?
 (19) Go ahead.
 (20) A. I think I told you this last time.
 (21) That is that shortly before the buyout by the
 (22) management of the King City Mine & Mill, I went to
 (23) King City and reviewed, I think, without seeing my
 (24) report, I don't know the exact numbers now, but I
 (25) think about 100 individuals' x-rays to determine

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- (1)
 (2) whether there were any obvious asbestos related
 (3) changes noticed in those films.
 (4) That was the only review I made.
 (5) Q. O.K. And just so I am clear on this,
 (6) what you reviewed then was the actual x-ray films?
 (7) A. I reviewed, I went down there, and I
 (8) went to the local hospital, where the x-rays had
 (9) been taken. And they made available to me from a
 (10) list that was provided by the mine, by the mill,
 (11) rather, the x-rays of workers.
 (12) And I am not quite sure what the
 (13) relation was of the workers that I reviewed. And
 (14) I looked, if I remember correctly, I looked at the
 (15) first available x-ray, I looked at the last and
 (16) most recent x-ray, and I probably looked routinely
 (17) at the one before that.
 (18) And if I had any suspicions, I would
 (19) look back further.
 (20) Q. Other than looking at the x-ray
 (21) films, did you see any other medical record or
 (22) medical information concerning workers?
 (23) A. Not at this moment in time that I can
 (24) remember.
 (25) Q. Have you ever seen any medical

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- (1)
 (2) record, medical reports, medical information, or
 (3) x-rays, concerning any workers at either the
 (4) Johns-Manville or the atlas facilities at New
 (5) Idria, California?
 (6) A. No.
 (7) Q. Have you ever heard or been told what
 (8) the health experience of those workers has been?
 (9) A. No. I am not aware of the health
 (10) experience of those workers.
 (11) Q. Going back to your review of the
 (12) x-rays of the workers at the King City asbestos
 (13) facility, do you know whether these x-rays that
 (14) you reviewed included the x-rays of all workers
 (15) who worked at the mine and mill at King City since
 (16) the production started in 1963?
 (17) A. I honestly don't remember what the
 (18) selection criteria were.
 (19) I would have to look at my report,
 (20) which I assume, which I hope will be able to
 (21) enlighten me on that.
 (22) But at this moment in time, I just
 (23) don't remember the selection criteria. I am
 (24) sorry.
 (25) Q. Do you have a copy of the report?

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- (1)
 (2) A. I do, but not with me.
 (3) Q. I would like to get a copy of the
 (4) report. Dr. Lewinsohn's report of his x-ray
 (5) review.
 (6) MR. WILL: We will take it under
 (7) advisement.
 (8) Q. First of all, would the report tell
 (9) us, if we looked at it, if it included all workers
 (10) who had worked at the mine and mill since
 (11) production began?
 (12) A. It should tell you which workers were
 (13) looked at.
 (14) Q. Do you remember if there was any
 (15) breakdown by occupation among those workers?
 (16) A. To the best of my recollection, there
 (17) was no breakdown by occupation.
 (18) Q. Was this a reading which was a blind
 (19) type of reading -
 (20) A. Yes.
 (21) Q. - where you just had a bunch of
 (22) films and you didn't know, before you read them,
 (23) where these people had worked in particular?
 (24) A. Correct.
 (25) Q. Did you become aware of that

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- (1)
 (2) information after you read the films?
 (3) A. I don't believe so.
 (4) Q. Now I take it, you have toured the
 (5) mill at King City?
 (6) A. On that occasion, when I went down
 (7) there, yes.
 (8) Q. And when was that again? About '85?
 (9) A. Just before the buyout took place,
 (10) the divestiture.
 (11) Q. Do you recall, when you toured the
 (12) mill on that occasion in about '84, '85, '86, in
 (13) that time period, were you shown the area where
 (14) the baggers worked in that mill?
 (15) A. I saw all the operations at that
 (16) mill.
 (17) Q. And do you know if your report of the
 (18) x-rays you reviewed of those workers would tell us
 (19) which of the workers worked in the bagging area?
 (20) A. I don't think so.
 (21) Q. Do you recall that information ever
 (22) coming to your attention?
 (23) Do you recall learning, in connection
 (24) with your review of x-rays, which of those workers
 (25) had worked in the bagging area?

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- (1)
 (2) A. No.
 (3) Q. So as far as you know, that is
 (4) something that was never specifically looked at
 (5) separately or broken out?
 (6) A. I didn't do it. I don't know whether
 (7) anyone else did.
 (8) Q. In addition to the x-rays that you
 (9) looked at personally, did you review any other
 (10) data concerning the King City workers, that is,
 (11) reviewed by any other doctors, any other record
 (12) concerning the health of the King City workers?
 (13) A. I don't think so.
 (14) Q. Do you know whether any of the
 (15) workers at King City Hospital, x-rays you looked
 (16) at, had been exposed to levels of asbestos in
 (17) their employment that exceeded the OSHA level, or
 (18) whether they were all below the OSHA level?
 (19) A. I can't answer because I don't think
 (20) that any correlation was done between dust levels
 (21) and occupation.
 (22) Q. In connection with your review of the
 (23) x-rays, did you see any dust level or exposure
 (24) data?
 (25) A. I don't believe.

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- (1)
 (2) Q. Do you know if you have ever seen any
 (3) dust level data in the King City mine or mill?
 (4) A. At this moment in time, I don't
 (5) remember.
 (6) Q. Do you know if you have ever seen any
 (7) dust level or exposure data from either the Atlas
 (8) one, or the Johns-Manville mines in that same
 (9) asbestos deposit?
 (10) A. I don't believe I would have had any
 (11) reason to.
 (12) Q. Have you seen any dust level or
 (13) exposure data from any workers in plants similar
 (14) to the Conwed plant, customer plants, where the
 (15) Calidria asbestos was used in manufacturing
 (16) processes?
 (17) A. Again, I must answer, I don't
 (18) remember.
 (19) Q. Are you familiar with a program that
 (20) Union Carbide undertook, beginning in about '72,
 (21) '73, where they would send industrial hygienists
 (22) out to Calidria customers' plants and take air
 (23) samples?
 (24) A. I didn't join Carbide until '82. So
 (25) I don't know about that.

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- (1)
 (2) Q. I understand that.
 (3) But in connection with your work at
 (4) Union Carbide, did you become familiar with that
 (5) program?
 (6) A. Not specifically, no.
 (7) Q. And do you recall ever reviewing data
 (8) generated by that program, that is, dust counts
 (9) done at plants of customers using Calidria
 (10) asbestos?
 (11) A. No. I don't.
 (12) Q. In connection with your work at any
 (13) time, whether at Union Carbide or since that time,
 (14) have you ever seen the medical records, medical
 (15) reports, x-rays, or medical information concerning
 (16) workers at customers plants who used Calidria
 (17) asbestos in manufacturing processes?
 (18) A. I really don't know.
 (19) From time to time, people like Alan
 (20) Gerson would contact me for my thoughts or my
 (21) opinions on a particular case
 (22) But that is as far as it went.
 (23) Q. Have you ever done a review of a
 (24) group of workers similar to what you did at the
 (25) King City x-rays from a customer plant where you

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- (1)
 (2) looked at a large number of x-rays?
 (3) A. No.
 (4) Q. So what you have done is done some
 (5) consulting with Union Carbide lawyers on a
 (6) particular lawsuit involving a particular worker?
 (7) A. From time to time, yes.
 (8) Q. And did you do that work while you
 (9) were at Union Carbide, or is that the work you
 (10) have done since you left Union Carbide?
 (11) A. No. I have done that at Union
 (12) Carbide.
 (13) Q. And since you have left Union
 (14) Carbide, have you done any of that consulting in
 (15) connection with cases of workers who claim to have
 (16) been exposed to Calidria asbestos at some
 (17) customers' plants?
 (18) A. I don't know.
 (19) Q. In terms of the consulting or the
 (20) review that you have done in connection with
 (21) particular cases of workers here and there, do you
 (22) know if any of those have involved a Conwed worker
 (23) from the Conwed plant in Cloquet, Minnesota?
 (24) A. That I don't remember.
 (25) Q. Would you happen to remember actual

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- (1)
(2) names of any of those people?
(3) A. No.
(4) Q. If I threw a couple of names at you
(5) of Conwed workers -
(6) A. You could try.
(7) Q. O.K. I will give you the name of
(8) James Manisco.
(9) A. That doesn't ring a bell
(10) Q. Is that a case you looked at in any
(11) way?
(12) A. It doesn't ring a bell.
(13) Q. Have you ever seen any published
(14) data, whether it was in your review of literature
(15) or anywhere else, about any surveys or reviews or
(16) studies of any group of workers in any plant
(17) setting that used Calidria asbestos?
(18) A. Not that I am aware of.
(19) Q. Are you aware if any such published
(20) data exists?
(21) A. No.
(22) Q. At the time you were at Union
(23) Carbide, did you ever make any recommendations of
(24) any type that any such survey be done of workers
(25) in plants where Calidria asbestos was used?

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- (1)
(2) A. I, personally? No.
(3) Q. Are you aware of anyone at Union
(4) Carbide, at any time, I guess up to the present
(5) time, as far as you know, suggesting or initiating
(6) any review or survey of workers in customer plants
(7) where Calidria asbestos was used?
(8) A. No.
(9) Q. Did it ever come to your attention
(10) that anyone else outside of Union Carbide was
(11) proposing or actually engaging in any such surveys
(12) of workers in customer plants where Calidria
(13) asbestos was used?
(14) A. No.
(15) Q. Are you familiar with the
(16) International Paper Workers Union? Have you ever
(17) heard of them?
(18) A. Not really, no.
(19) Q. You have never done any work for them
(20) in any connection, I take it?
(21) A. No.
(22) Q. Have you ever seen any of the -
(23) strike that
(24) Have you ever heard that the
(25) International Paper Workers Union did a screening,

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- (1)
(2) a medical screening, with x-rays, and other
(3) reviews, of workers at the Conwed plant who used
(4) Calidria asbestos?
(5) A. I don't know.
(6) The reason I am hesitating is because
(7) I can remember, some time back, seeing a brief
(8) report in the Bureau of National Affairs of the
(9) Occupational Health Reporter, that publication,
(10) which related to Conwed workers. But I don't
(11) remember the context of it.
(12) Whether that referred to it or not, I
(13) do not remember.
(14) Q. Do you recall if that came to your
(15) attention while you were working for Union
(16) Carbide, or is that something you saw since that
(17) time?
(18) A. I don't know.
(19) Q. At the time that report in the
(20) Reporter came to your attention, did you know that
(21) the Conwed workers had been exposed to the
(22) Calidria asbestos?
(23) A. I don't know when that report came to
(24) my attention.
(25) I can't answer that

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- (1)
(2) Q. As you sit and think about it now, do
(3) you recall if the report said anything about the
(4) type of asbestos to which those workers were
(5) exposed?
(6) A. No. I am sorry I raised it. It was
(7) just from my memory. I remembered seeing it.
(8) Q. Do you recall ever seeing or
(9) reviewing a report by the Minnesota Department of
(10) Health concerning the Conwed workers at the
(11) Cloquet, Minnesota plant?
(12) A. No, I had not.
(13) Q. And while you were at Union Carbide,
(14) do you know if you were ever contacted, or did you
(15) ever discuss with any other researchers whether
(16) from the Minnesota Department of Health or Paper
(17) Workers Union or anywhere else, concerning any
(18) surveys or reviews of workers at the Conwed plant?
(19) A. No.
(20) Q. Looking back now at Exhibit 8, the
(21) disclosure.
(22) First of all, have you ever seen this
(23) particular disclosure before the deposition here
(24) today?
(25) A. No.

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- (1) Q. If you look in the first paragraph,
 (2) it says, "Dr. Lewinsohn may be asked to give
 (3) opinions about the ability of Calidria asbestos to
 (4) cause diseases in workers under the conditions," I
 (5) am sorry, "under the conditions during which it
 (6) was used at the Conwed plant."
 (7) Do you see that reference?
 (8) A. I do.
 (9) Q. And is that an opinion that you would
 (10) be prepared to give in this case, as far as you
 (11) know?
 (12) MR. GERSON: At this time?
 (13) MR. BROWNSON: Well, yes.
 (14) A. Not at this moment in time, no.
 (15) Q. In order for you to give that
 (16) opinion, what further information would you need
 (17) to review?
 (18) A. I would need to review all the
 (19) information pertaining to the use of Calidria
 (20) asbestos in the Conwed plant, the circumstances
 (21) under which it was used, any relevant industrial
 (22) hygiene surveys that were conducted, any health
 (23) record of employees that were available. And, in
 (24) general, review the literature available on
 (25)

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- (1) Calidria asbestos.
 (2) It would require preparation.
 (3) (Telephone interruption)
 (4) (Recess)
 (5) BY MR. BROWNSON:
 (6) Q. Dr. Lewinsohn, you just told us, in
 (7) order to render an opinion about the ability of
 (8) Calidria asbestos to cause disease in workers
 (9) under the conditions used in the Conwed plant, you
 (10) would need to review a number of different things.
 (11) I understood you would not be able to
 (12) render an opinion without reviewing those
 (13) materials. Is that correct?
 (14) A. Not necessarily correct. If I were
 (15) to render an opinion specifically related to those
 (16) circumstances involving that particular group of
 (17) employees, I would need a lot more information.
 (18) Q. O.K. Are you prepared to render any
 (19) opinions, in general, concerning Calidria asbestos
 (20) and its ability to cause disease in workers in
 (21) manufacturing plants?
 (22) A. I think so. Yes.
 (23) Q. Can you tell us what your opinions
 (24) are in that regard about the ability of Calidria
 (25)

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- (1) asbestos to cause disease among workers in
 (2) manufacturing plants?
 (3) A. Yes. In my opinion, Calidria
 (4) asbestos is unlikely to cause the asbestos-related
 (5) diseases which have been described in connection
 (6) with the use of other asbestiform minerals.
 (7) Q. Are you saying - strike that.
 (8) Let's take the disease of asbestosis.
 (9) I am talking now about clinical asbestosis which
 (10) would show up on an x-ray as interstitial
 (11) fibrosis. Okay?
 (12) A. Yes.
 (13) Q. Is it your opinion that Calidria
 (14) asbestosis unlikely to cause that disease among
 (15) workers in a manufacturing plant?
 (16) A. In general, yes, that is my opinion.
 (17) Q. Now is your opinion is based, in
 (18) part, upon the dose of Calidria which would be
 (19) required to cause such a disease?
 (20) A. It's based in part on that, but it's
 (21) based largely, I think, on the fact that this
 (22) fiber is so different from the other fibers which
 (23) have been associated with the disease.
 (24) Q. Well, let me ask you some questions
 (25)

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- (1) about that.
 (2) First of all, you are not saying, are
 (3) you, that Calidria is absolutely unable, under any
 (4) circumstances, to cause asbestosis among workers?
 (5) A. No. I said unlikely.
 (6) I don't believe that I could make
 (7) that statement that, under any circumstances,
 (8) would not cause disease.
 (9) Q. O.K. So as I understand your
 (10) opinion, what you are saying is Calidria is less
 (11) likely to cause the disease asbestosis than other
 (12) asbestos type fibers in the setting of a
 (13) manufacturing plant where workers are using it?
 (14) A. Depending upon the working
 (15) conditions, and the exposure of those workers,
 (16) yes.
 (17) Q. And let me ask you this question.
 (18) All other things being equal, in
 (19) terms of working conditions and exposure, are you
 (20) saying that Calidria is less likely to cause
 (21) asbestosis than other types of asbestos?
 (22) A. I think so, yes.
 (23) Q. And would you agree that the converse
 (24) of that also is true, that if Calidria is used
 (25)

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- (1) where there are higher levels of exposure and more
(2) dusty working conditions that it could be more
(3) likely to cause diseases than some other types of
(4) asbestos at lower exposure?
(5) A. I don't follow that argument
(6) Q. Well, let me ask you this question
(7) Would you agree with me that if
(8) people using Calidria asbestos were exposed to
(9) enough of it for long enough in a manufacturing
(10) plant, they could get asbestosis?
(11) A. I would say that if the exposure were
(12) overwhelming, and were of such magnitude as to
(13) overwhelm the primary defense mechanism that the
(14) human body has to prevent that type of fiber from
(15) causing health effects, then under such
(16) circumstances, it would be possible to develop
(17) pulmonary fibrosis.
(18) Q. In laymen's terms, asbestosis?
(19) A. Asbestosis
(20) Q. Now, as I understand your opinion,
(21) what you are saying is that the Calidria asbestos
(22) is different than other types of asbestos, which
(23) makes it less likely to cause asbestosis, is that
(24) correct?
(25)

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- (1) A. I think so.
(2) Q. Now what are the specific differences
(3) which, in your view, make it less likely to cause
(4) asbestos-related disease?
(5) A. It's basically the physical property,
(6) you know, the fiber is a fibril. It is not a
(7) bundle of fibril. But fiber itself is fibril.
(8) It's very short, by which I mean it's
(9) usually around about 5 microns in length, and it's
(10) of small diameter.
(11) Such fibers, are readily engulfed by
(12) the macrophages, which are the scavenger cells in
(13) the lungs, and can be eliminated from the lungs,
(14) either in sputum or through the lymphatic chain.
(15) Or even if swallowed would be eliminated through
(16) the gastroendosinal tract.
(17) So the possibility for these fibers
(18) to dwell for long enough in the lungs to produce
(19) their fibrotic effect, I think is vastly
(20) diminished by the physical properties of the
(21) fiber.
(22) Q. So what you are saying is because of
(23) the physical characteristics of these fibers being
(24) short, small diameter, they are more easily
(25)

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- (1) cleared out of the lungs?
(2) A. I think so. Yes.
(3) Q. And would you agree that if, in a
(4) given case, they were not cleared out of the
(5) lungs, and they remained in the lungs in
(6) sufficient quantities, then they could cause
(7) disease?
(8) A. For long enough?
(9) Q. Right.
(10) A. That is your guess is as good as mine
(11) under those circumstances.
(12) Q. Well -
(13) A. I can't give you a definitive answer
(14) Q. Have you ever seen lung tissue fiber
(15) burdened studies or analyses of workers exposed to
(16) Calidria asbestos?
(17) A. No.
(18) Q. So as you sit here today, do you have
(19) any actual data or information as to what the lung
(20) tissue Calidria fiber burden is in workers exposed
(21) in manufacturing plants?
(22) A. No. I don't know that anybody has.
(23) Q. And you have anticipated my next
(24) question.
(25)

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- (1) Are you aware of any of any such
(2) information in the possession of anyone at Union
(3) Carbide?
(4) A. No.
(5) Q. And are you aware of any studies
(6) Union Carbide or people on behalf of Union Carbide
(7) have ever undertaken to try to find that out, do
(8) lung tissue fiber burden studies of people exposed
(9) to Calidria in manufacturing plants?
(10) A. I am not aware of that.
(11) Q. Have you seen any published data on
(12) that point?
(13) A. No.
(14) Q. I am going back through this
(15) disclosure here of your opinions, Exhibit 8.
(16) One of the things it says you will
(17) make comment on is the scientific literature
(18) regarding the ability of chrysotile and short
(19) fibered chrysotile to cause disease.
(20) I take it, that is generally what we
(21) were just talking about?
(22) A. Generally, yes.
(23) Q. Are you aware of any particular
(24) scientific literature that discusses the ability
(25)

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- (1) of Calidria asbestos fiber to cause disease?
(2) A. No. At this moment in time, I am not
(3) aware of that.
(4) Q. And are you aware of any literature
(5) that discusses the ability of the New Idria
(6) asbestos fiber in general, whether it came from
(7) one of these other two mines of Atlas or
(8) Johns-Manville, to cause disease?
(9) A. Again, I must say that as I sit here
(10) now, I can't give you any specific instance.
(11) Q. Now, it also says on this disclosure
(12) statement 8, that you may be asked about the
(13) appropriateness of steps taken by Conwed
(14) management, from an occupational health
(15) standpoint, in light of the knowledge available to
(16) them.
(17) I take it, as you sit here today, you
(18) have no specific information as to what knowledge
(19) was available to Conwed and what steps they took?
(20) A. No. I have had no preparation
(21) whatever for my - by Union Carbide counsel for
(22) any testimony I would offer.
(23) Therefore, I haven't been provided
(24) with all the facts in this case.
(25)

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- (1) Q. Let me back up a little bit.
(2) When you told us earlier about your
(3) general opinions that Union Carbide asbestos is
(4) less dangerous than some other types, because you
(5) gave us a number of factors, you said the fact
(6) that it's fibril, short, small diameter, in your
(7) view does the pelletized form of the asbestos bear
(8) any relationship to its abilities to cause
(9) disease?
(10) A. I would say it does, in that the
(11) pelletized form of asbestos is likely to be far
(12) less dust producing than loose fibers being
(13) pelletized.
(14) Q. Do you know if that is why Union
(15) Carbide pelletized the Calidria in the first
(16) place, to make it less dusty?
(17) A. I don't know why they selected that
(18) method of producing their final product, whether
(19) it was health represented or whether that was the
(20) most appropriate way in which to package it.
(21) Q. Have you seen any experiments that
(22) anyone at Union Carbide did where Calidria
(23) asbestos was placed inside a closed chamber to
(24) create an aerosol or a dust to determine how dusty
(25)

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- (1) it might be?
(2) A. I don't recollect seeing that
(3) Q. Do you have any specific data in
(4) terms of the dustiness of Calidria asbestos in an
(5) experiment of that type, or where someone actually
(6) tests to see what sort of dust it will produce?
(7) A. I don't No.
(8) Q. Have you seen any experiments showing
(9) the relative dustiness of pelletized versus
(10) non-pelletized Calidria asbestos?
(11) A. No.
(12) Q. Would you agree with me that whatever
(13) advantage there is to the pelletized form of the
(14) Calidria asbestos in terms of being less dusty,
(15) that that advantage is lost once the pellets are
(16) opened and fiberized?
(17) A. Once they are opened and fiberized,
(18) could you tell me what you mean by that?
(19) Q. Well, if the pellets are crushed and
(20) broken apart so they are no longer pellets, but
(21) now they are just loose fiber?
(22) A. Obviously, if you take pellets and
(23) crush them and fiberize them, you are reducing
(24) them back down to a state of being fibril, which
(25)

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- (1) if they were allowed to escape into the air, would
(2) be dustier than lying there compacted in pellets.
(3) Q. O.K. Do you recall ever seeing any
(4) information or data about the shipping of Calidria
(5) asbestos in terms of broken bags, if whether the
(6) bags break, if so, how many, that sort of thing?
(7) A. No. I have no information on that.
(8) Q. Do you recall ever seeing any
(9) information of complaints by customers that when
(10) they received Calidria asbestos, that bags were
(11) broken and it was dusty, that sort of thing?
(12) A. No.
(13) Q. Looking at Exhibit 8, the disclosure
(14) as to things you might testify, it also says you
(15) might be asked to give an opinion as to the extent
(16) to which alleged health problems in former Conwed
(17) workers are attributable to factors other than
(18) asbestos.
(19) Again, I take it, you have no
(20) specific information in that regard at the present
(21) time?
(22) A. That's correct.
(23) Q. And as far as you know, have you been
(24) asked at this point to educate yourself on that?
(25)

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- (1) A. I have not.
(2) Q. And if you were asked to educate
(3) yourself on that point so that you could render an
(4) opinion in this case, what information would you
(5) need to see?
(6) A. I would need to know all the
(7) information about the use of the Calidria fiber by
(8) Conwed in addition to what other fibrogenetic or
(9) carcinogenetic materials may have been present in
(10) the workplace at the same time.
(11) And whether any admixture of those
(12) materials took place in the formulation which went
(13) into the final product, which I would like to know
(14) what the conditions were under which these other
(15) materials were used and the industrial hygiene
(16) data relating to them.
(17) Q. At the present time, you don't have
(18) any information in that regard?
(19) A. I don't.
(20) Q. Do you know if there is any
(21) synergistic effect of any sort between Calidria
(22) asbestos and cigarette smoking?
(23) A. Calidria asbestos has really not been
(24) segregated epidemiologically to any extent that I
(25)

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- (1) forms of chrysotile have.
(2) But I have no information, no
(3) scientific information specifically on that fact
(4) relating to Calidria.
(5) Q. And when you said that in order to
(6) render an opinion as to whether health approximate
(7) in former Conwed workers are attributable to
(8) factors other than asbestos, you would want the
(9) information about what other materials these
(10) workers were exposed to.
(11) Can you give me examples of what sort
(12) of materials would concern you in that regard?
(13) A. Well, yes.
(14) Was Calidria the only asbestiform
(15) material that was used in the manufacture of
(16) tiles? Were other forms of asbestos used? Were
(17) other fibrogenetic dusts present? Silica
(18) containing dust, for example.
(19) Q. These other fibrogenetic - you have
(20) mentioned, first of all, other types of asbestos
(21) could be fibrogenetic?
(22) A. Yes.
(23) Q. Silica dust could be fibrogenetic?
(24) A. Yes.
(25)

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- (1) am aware. I have no knowledge that there is any
(2) deleterious effect.
(3) Q. So would that mean, in order to
(4) render an opinion, like we are just talking about,
(5) that you would not be interested in cigarette
(6) smoking data among these workers, or would that be
(7) something that would interest you?
(8) A. It would interest me because
(9) cigarette smoking per se causes lung cancer.
(10) Q. And would it also interest you
(11) because it could be possible that there is a
(12) synergistic effect between Calidria asbestos and
(13) cigarette smoking?
(14) A. I would have to study that.
(15) Q. You don't know one way or another?
(16) A. I don't think anybody does.
(17) Q. Would you agree that that is a
(18) possibility, however, that I guess that would bear
(19) study?
(20) A. I guess if Calidria asbestos possess
(21) the ability to damage the lungs, in the same way
(22) as other forms of chrysotile asbestos have been
(23) shown to do, then it would probably have the same
(24) synergistic effect with tobacco smoke as other
(25)

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- (1) Q. I understand, as you sit here today,
(2) you have no specific information about the other
(3) types of asbestos used at Conwed?
(4) A. That is not strictly true because in
(5) conversation, I have gathered that amosite was
(6) also used.
(7) Q. So you are aware that some amosite
(8) was used at Conwed?
(9) A. I am aware that some was used. I am
(10) not sure how or in what quantity.
(11) Q. How about silica? Do you know if any
(12) silica was used at Conwed?
(13) A. I don't know.
(14) Q. Other than other types of asbestos
(15) and silica, are there other types of fibrogenetic
(16) types of dust that you would look for that could
(17) be a factor in spreading disease among these
(18) workers?
(19) A. There aren't too many other
(20) significant fibrogenetic dusts besides those I
(21) have mentioned.
(22) Q. Those are really the only two,
(23) asbestos and silica?
(24) A. I guess so. Unless some of the
(25)

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- (1) employees happen to be coal miners or coal
(2) workers.
(3) Q. Coal is a fibrogenetic dust?
(4) A. Yes.
(5) Q. Black lung disease?
(6) A. Right
(7) Q. Are you familiar with the studies by
(8) Dr. Demenc and others of textile workers in
(9) Charleston, South Carolina?
(10) A. Yes.
(11) Q. Is it your view, do you have an
(12) opinion as to whether the results of those studies
(13) have any bearing on or illustrate anything about
(14) disease that may occur among Conwed workers as a
(15) result of exposure to Calidria asbestos?
(16) A. The study in Charleston?
(17) Q. Right.
(18) A. I don't see what bearing those
(19) specifically have.
(20) Q. Why do you think they would have no
(21) bearing on the experience of workers at Conwed?
(22) A. I didn't say they had no bearing.
(23) I just don't see what bearing they
(24) would have, because the workers in Charleston were
(25)

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- (1) textile workers, using chrysotile fiber, which was
(2) totally different from the Calidria fiber in the
(3) physical properties.
(4) Q. Are you aware of Dr. Demenc's study
(5) of chrysotile?
(6) A. I was the corporate medical director
(7) for Raybestos Manhattan at the time those studies
(8) took place that was at that plant, and provided
(9) Dr. Demenc with the opportunity of going there.
(10) Q. You are familiar with the fact there
(11) were elevated rates of lung cancer found?
(12) A. Certainly. Yes.
(13) Q. And it's your view, however, as I
(14) understand it, that that cannot be translated to
(15) the experience of the Conwed workers because this
(16) is a different type of manufacturing process and a
(17) different type of chrysotile?
(18) A. That is my belief, yes.
(19) Q. What is it that is different about
(20) the chrysotile in the textile plant in Charleston,
(21) South Carolina from what was used at the plant at
(22) Conwed?
(23) A. The fiber in the textile plant at
(24) Charleston is a spinning grade of chrysotile
(25)

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- (1) asbestos, which is mined under very different
(2) circumstances and produced under very different
(3) circumstances from Calidria asbestos.
(4) The fiber itself, in order to be a
(5) spinning grade fiber, has to be long and flexible.
(6) It has to be very similar to cotton in other
(7) respects, so it can pass through the process, the
(8) textile process, of opening, carding, spinning,
(9) winding.
(10) We have gone through all the things
(11) that were done with that fiber. Calidria can't do
(12) that. Calidria is a little fiber, short thing.
(13) Q. Would you say then, if we could try
(14) to sum this up in laymen's terms as a general
(15) proposition, the longer fibers are more dangerous
(16) than the shorter fibers?
(17) A. In very general terms, yes.
(18) Q. And if we were to try to summarize
(19) the difference in general terms between the
(20) chrysotile that caused disease in the Charleston,
(21) S.C. textile plant, and the Calidria at Conwed,
(22) it's your view the chrysotile in Charleston was
(23) quite a bit longer and was a spinning grade?
(24) MR. WILL: I want to object to the
(25)

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- (1) question.
(2) I don't think the doctor ever
(3) concluded that the disease that was caused
(4) in Charleston was, in fact, due to the
(5) asbestos and not some other compounding
(6) factor.
(7) But in any event -
(8) MR. BROWNSON: Okay.
(9) MR. WILL: - he indicated there was
(10) an excess rate of lung cancer found in the
(11) study in the plant that was using the long
(12) chrysotile.
(13) BY MR. BROWNSON:
(14) Q. I understood you concurred with the
(15) conclusion, I guess, generally reached about those
(16) workers, that that chrysotile had something to do
(17) with the increased rate of lung cancer?
(18) A. I think the way it is said, there was
(19) an excess incidence of lung cancer associated with
(20) exposure to chrysotile asbestos in the textile
(21) plant in Charleston, South Carolina.
(22) Q. O.K.
(23) And what I am trying to do is fill
(24) this out in general terms. Maybe it can't be
(25)

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- (1) done.
 (2) But as I thought I understood it, it
 (3) is your view that the reason that chrysotile may
 (4) be associated with more disease than what you, Dr.
 (5) Lewinsohn, would expect to see with Calidria was
 (6) because, as a general proposition, of this longer
 (7) spinning grade of chrysotile, and Calidria is
 (8) short?
 (9) A. That is one of the reasons, yes.
 (10) Q. Is that the main reason?
 (11) A. It is a very significant reason.
 (12) Q. Have you seen published fiber size
 (13) distribution data concerning the chrysotile
 (14) asbestos at Charleston, South Carolina?
 (15) A. I want to say probably, but I don't
 (16) recollect precisely.
 (17) Q. Have you seen publicized distribution
 (18) data with respect to Calidria chrysotile?
 (19) A. Yes.
 (20) Q. Have you seen such data which has
 (21) been generated by transmission electromicroscopy?
 (22) A. I don't remember the details of the
 (23) fiber size distribution data that I've seen, but I
 (24) know I have seen it.
 (25)

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- (1) Q. Would you agree with me that the
 (2) relationship between amosite asbestos and disease
 (3) is dose dependent?
 (4) A. The relationship between amosite
 (5) asbestos, and the production of asbestosis and
 (6) probably lung cancer, I would say is dose
 (7) dependent.
 (8) I think that the relationship between
 (9) amosite and development of mesothelioma is also
 (10) dose dependent, but I think that dose is one which
 (11) has not yet been determined.
 (12) Q. If we can put that opinion in
 (13) laymen's terms, the greater the dose of amosite
 (14) asbestos, the greater the relationship between
 (15) asbestos-related disease and, on the other hand,
 (16) the less the dose, the less the relationship.
 (17) Would that be fair to say?
 (18) A. If you define dose as concentration
 (19) and time, because dose depends upon the
 (20) concentration and the time, the amount, that of
 (21) exposure, and the time frame over which that
 (22) exposure occurs.
 (23) Q. So again, to try to put this in
 (24) laymen's terms, the more amosite asbestos you are
 (25)

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- (1) Q. Going back to Exhibit 8, the final
 (2) area of opinions you might be asked that I would
 (3) like to ask you about, is what is described here
 (4) as the role of amosite.
 (5) You see that about the middle of the
 (6) paragraph? It says, "The Role of Amosite"?
 (7) A. Yes.
 (8) Q. Do you have any opinions as you sit
 (9) here today as to what role, if any, any amosite
 (10) asbestos played in the disease of workers at
 (11) Cloquet?
 (12) A. As I sit here today, I don't have any
 (13) specific opinion but other than to state that
 (14) amosite is known to result, following adequate
 (15) exposure, in the development of asbestosis, lung
 (16) cancer and mesothelioma.
 (17) Again, without knowing the specific
 (18) circumstances surrounding its use at Conwed, I
 (19) can't venture any further opinion.
 (20) Q. Would it be fair to say that one of
 (21) the things you would need to know is the levels of
 (22) exposure to amosite dust?
 (23) A. Yes. I need to know the levels of
 (24) exposure to amosite dust.
 (25)

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- (1) exposed to for a longer time, the more likelihood
 (2) there is of asbestos-related disease?
 (3) A. Well, I hate to be too pedantic.
 (4) MR. GERSON: You are the expert. Be
 (5) as pedantic as you want to be.
 (6) A. The concept is, exposure is the
 (7) concentration and time. So the dose might be a
 (8) lower concentration over a longer time, or a
 (9) higher concentration over a shorter time.
 (10) Q. O.K. So the two things that are
 (11) important in determining the dose is the amount of
 (12) dust a worker is exposed to and how long?
 (13) A. And how long.
 (14) Q. O.K.
 (15) A. And there is one other factor, and
 (16) that is, that the development of the disease is
 (17) often delayed.
 (18) And so, therefore, there is a lapse
 (19) interval between the first exposure and the
 (20) recognition of any health affects.
 (21) Q. That is what is known as the latency?
 (22) A. Yes. That is not synonymous with the
 (23) length of exposure because exposure may have
 (24) ceased.
 (25)

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- (1) Q. And do you have any opinion as to
 (2) whether the latency of exposure from amosite
 (3) asbestos is related to the dose?
 (4) In other words, if you get a higher
 (5) does, is the latency in any way shortened?
 (6) A. I would like to think that would be a
 (7) simple explanation for it, but I have no
 (8) scientific evidence or epidemiological evidence to
 (9) confirm that theory.
 (10) Q. The final disease you mentioned of
 (11) mesothelioma, it's your opinion that mesothelioma
 (12) is also related to the dose of amosite asbestos,
 (13) but you don't have information exactly what the
 (14) dose is that causes mesothelioma?
 (15) A. I think the mesothelioma, the jury is
 (16) still out as to what the level of exposure is
 (17) required with any of the forms of asbestos to
 (18) produce that particular form of malignancy.
 (19) Q. Is that also true of Calidria
 (20) asbestos, the jury is still out in your view as to
 (21) what dose would be necessary to cause
 (22) mesothelioma?
 (23) A. I think jury is still out with
 (24) Calidria asbestos as to whether it can cause any
 (25)

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- (1) form of asbestos-related diseases.
 (2) Q. In your view?
 (3) A. In my view.
 (4) Q. And again, from the time you began at
 (5) Union Carbide to the present time, did you ever
 (6) initiate any research or studies to try to answer
 (7) that question?
 (8) A. No.
 (9) (Recess)
 (10) MR. BROWNSON: We have no other
 (11) questions.
 (12) MR. WILL: I have a couple of
 (13) questions I want to ask.
 (14) EXAMINATION BY
 (15) MR. WILL:
 (16) Q. Mr. Brownson asked you if you were to
 (17) give an opinion about amosite, the role of amosite
 (18) in causing a disease in workers, what you would
 (19) want to know.
 (20) And you said, one of the things you
 (21) would want to know was the level of exposure.
 (22) If there are no dust counts done in
 (23) the plant when the amosite was in use, would that
 (24) prevent you from giving opinions about any role
 (25)

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- (1) that amosite may have played?
 (2) MR. BROWNSON: I am going to object
 (3) to the form of the question.
 (4) Go ahead.
 (5) A. If there are no dust counts?
 (6) I think it might still be possible to
 (7) render an opinion, providing there was comparative
 (8) data available in terms of other measurements that
 (9) might have been made or in terms of descriptive,
 (10) descriptions of the dustiness of the operation.
 (11) Q. Would it be helpful to know how much
 (12) amosite had been used in a plant, kind of
 (13) consumption?
 (14) A. It would be helpful to know, if one
 (15) also knew how much amosite went into the process.
 (16) Q. Last time, last time being February,
 (17) 1994, you were questioned by Mr. Brownson about -
 (18) I want to make sure I characterize this accurately
 (19) so I don't get an objection.
 (20) In the February session of your
 (21) deposition, you were asked a question by Mr.
 (22) Brownson, the gist of which was that, will people
 (23) be at risk from getting an asbestos-related
 (24) disease, even if they were are not working
 (25)

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- (1) directly with the asbestos in any product?
 (2) Do you recall that generally?
 (3) A. Give it to me again.
 (4) Q. Well the question, I will refer to it
 (5) specifically, referring to page 171, and 172 of
 (6) the deposition, and your answer to the question,
 (7) which had to do with Dr. Selicoff's statement that
 (8) asbestos fibers didn't respect job
 (9) classifications, Mr. Brownson said:
 (10) "In other words, they could float
 (11) adrift around in the work area?"
 (12) And in responding to that, you
 (13) referenced the work of Dr. Wagner, the work of
 (14) Molly Newhouse, and a paper by McCaughey, Wade &
 (15) Elms, and you talked about something that you
 (16) said, there had been instances of asbestos disease
 (17) occurring in people that had pure environmental
 (18) exposure.
 (19) And my question was, what did you
 (20) mean when you referred to asbestos-related disease
 (21) occurring in people with pure environmental
 (22) exposure? To what were you referring?
 (23) MR. BROWNSON: I will object to the
 (24) form.
 (25)

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- (1)
 (2) Go ahead and answer.
 (3) A. Yes. There was an awareness that
 (4) developed that people who had been exposed, living
 (5) in the vicinity of an asbestos manufacturing
 (6) facility, or a mine, could also develop the
 (7) asbestos-related diseases.
 (8) And the instances that, the two
 (9) instances that are best known are the domestic
 (10) exposure that Molly Newhouse described, and then
 (11) what I would call the environmental exposures that
 (12) Dr. Wagner has described in the Northwest Province
 (13) in South Africa, in this little town of Kuruman,
 (14) and where the mine tailings were used for road
 (15) building.
 (16) People paved their driveways with it.
 (17) School playgrounds were made from this material,
 (18) tennis courts. It was used for all sorts of
 (19) purposes.
 (20) And mesothelioma developed in the
 (21) community in that little town, who had never ever
 (22) had any occupational exposure.
 (23) That is what I would call
 (24) environmental exposure.
 (25) Q. What type of asbestos fiber was

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- (1)
 (2) there was some type of ownership relationship
 (3) between Bell Mines and Turner & Newall.
 (4) Do you know the specifics of that
 (5) relationship?
 (6) A. You mean the business relationship?
 (7) No. I don't know the specifics.
 (8) Q. Or the particular legalities of the
 (9) way it was organized?
 (10) A. No. I wasn't particularly interested
 (11) in it.
 (12) Q. You mentioned something in the first
 (13) deposition, something called a scheduled area
 (14) under the asbestos regulations that applied in
 (15) England after 1931.
 (16) And briefly, what was the scheduled
 (17) area?
 (18) A. I am relying now on my memory of sort
 (19) of a complex regulatory issues.
 (20) But as I remember it, the asbestos
 (21) industry regulations in the United Kingdom were
 (22) promulgated in 1931 and took effect in 1933.
 (23) Also, they did not stipulate any
 (24) exposure levels or regulate any particular
 (25) processes, as far as I can recollect. They also

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- (1)
 (2) involved in Kuruman?
 (3) A. Kuruman was crocidolite fiber.
 (4) Q. In your first deposition, Mr.
 (5) Brownson asked you about the first case of
 (6) mesothelioma that that you recall seeing.
 (7) You mentioned that was a person at
 (8) the Ferrado plant?
 (9) A. Yes.
 (10) Q. Do you know the name of that
 (11) individual?
 (12) A. Yes. Archibald Vernon.
 (13) Q. And to what type of fibers had Mr.
 (14) Vernon been occupationally exposed?
 (15) A. Mr. Vernon worked at that plant, had
 (16) been exposed to chrysotile fibers, but he was one
 (17) of a number of workers who had worked in one area
 (18) of the plant, where - and they all worked in
 (19) close proximity - where they had manufactured a
 (20) special, I think it was a railroad brake block,
 (21) which was for some mid-European country's
 (22) railroads, that was specifically made out of
 (23) crocidolite asbestos. He was exposed to
 (24) crocidolite.
 (25) Q. You also made reference to the fact

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- (1)
 (2) didn't stipulate any medical surveillance that
 (3) should be conducted.
 (4) But at the same time those
 (5) regulations took effect, the silicosis and
 (6) asbestosis medical arrangement team of 1931 was
 (7) introduced. And the silicosis medical boards,
 (8) which subsequently became like pneumoconiosis,
 (9) like pneumonia, pneumoconiosis panel, had the
 (10) responsibilities for conducting medical
 (11) surveillance examinations on asbestos workers and
 (12) the way in which the asbestos workers were, who
 (13) they were to examine were categorized according to
 (14) the type of work they did and the areas in which
 (15) they worked.
 (16) And so those areas, which came under
 (17) the surveillance of the pneumoconiosis medical
 (18) panel were the scheduled areas.
 (19) Q. For example, in the Turner & Newall
 (20) Rochdale plant, was the entire plant where
 (21) asbestos was used considered a scheduled area?
 (22) MR. BROWNSON: I object to the form
 (23) of the question.
 (24) A. No.
 (25) Q. And were all of the workers in the

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- (1) entire plant required to be monitored?
 (2) MR. BROWNSON: I object to the form
 (3) A. Not by the pneumoconiosis medical
 (4) panel, no.
 (5) Q For asbestos?
 (6) A. For asbestos. Right
 (7) Q. Finally, whose responsibility was it
 (8) to see that the regulations were followed in
 (9) England in the Rochdale plant.
 (10) A. Whose responsibility?
 (11) Q. Under the British regulations, what
 (12) entity had the responsibility for seeing that the
 (13) asbestos regulations were complied with?
 (14) A. That was a factory inspection.
 (15) Q. Was it the job of, I mean which
 (16) private entity was the company charged with that?
 (17) MR. BROWNSON: I will object to the
 (18) form.
 (19) I think he has already answered.
 (20) Q. Is the factory inspector an arm of
 (21) the government?
 (22) A. Yes.
 (23) Q. They were in charge of enforcing the
 (24) regulations?
 (25)

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- (1) A. Correct.
 (2) Q. What private entity had
 (3) responsibility for complying with the regulations?
 (4) A. The employer.
 (5) MR. WILL: Thank you.
 (6) MR. GERSON: Wait a minute.
 (7) (Discussion off record)
 (8) BY MR. WILL:
 (9) Q. Mr. Brownson asked you questions
 (10) about the fact that there were three mines in the
 (11) New Idria area, J-M, Atlas and Union Carbide.
 (12) And you indicated that, as far as you
 (13) were concerned, there was no difference between
 (14) the mines, is that correct?
 (15) A. Yes.
 (16) Q. Now my question is, do you know, for
 (17) example, what processes were used at the other
 (18) mines?
 (19) A. No.
 (20) Q. Have you ever done any studies to see
 (21) whether there were any differences between the
 (22) fibers from the other mines and the Union Carbide
 (23) fiber?
 (24) A. No.
 (25)

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- (1) Q. Do you know, in terms of the health
 (2) history, at Johns-Manville and Atlas, do you know
 (3) what process was used in the milling that was done
 (4) at Johns-Manville or Atlas?
 (5) A. No.
 (6) Q. Did you understand that Union Carbide
 (7) used a wet mill process?
 (8) MR. BROWNSON: I object to the form
 (9) of the question.
 (10) MR. WILL: I will withdraw the
 (11) question.
 (12) Q. Is it possible that the method of
 (13) milling used at Atlas or Johns-Manville would have
 (14) some impact on the health history of its
 (15) employees?
 (16) A. I would have to know what the method
 (17) of milling was.
 (18) I can't answer.
 (19) Q. Let me ask the question a little
 (20) differently.
 (21) Would the industrial hygiene
 (22) practices followed have some impact on the health
 (23) history of the workers?
 (24) A. (No verbal response).
 (25)

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- (1) Q. You don't know anything about it?
 (2) A. No.
 (3) Q. All right. I will withdraw that
 (4) question.
 (5) To your knowledge, was any tremolite
 (6) ever found in Calidria asbestos?
 (7) A. Not to my knowledge.
 (8) Q. Would that have any impact on its
 (9) ability to cause disease vis-a-vis other types of
 (10) chrysotile?
 (11) A. It is my understanding that the
 (12) recent medical literature reports have appeared
 (13) which indicate that asbestos which is contaminated
 (14) with tremolite is more likely to be the cause of
 (15) lung cancer and mesothelioma and possibly other
 (16) asbestos-related effects.
 (17) Q. Are you talking about chrysotile
 (18) asbestos?
 (19) MR. BROWNSON: Objection to the form.
 (20) A. I am talking about chrysotile
 (21) asbestos which is not pure and which may have been
 (22) contaminated by tremolite.
 (23) MR. WILL: That is all.
 (24) BY MR. BROWNSON:
 (25)

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- (1)
 (2) Q. Dr. Lewinsohn, you said there have
 (3) been recent reports in the medical literature
 (4) saying asbestos contaminated with tremolite might
 (5) be more dangerous than asbestos without tremolite.
 (6) Are you aware of any reports which
 (7) have actually compared the two, asbestos with
 (8) tremolite, and asbestos without tremolite?
 (9) A. No. I think I misspoke. I shouldn't
 (10) have said it in that manner.
 (11) The reports indicate - let me just
 (12) think a moment.
 (13) MR. GERSON: Take your time.
 (14) A. What I am trying to say is that the
 (15) reports in the recent literature indicate that
 (16) chrysotile asbestos contaminated with tremolite
 (17) has been found to be the most probable cause of
 (18) malignancies that have arisen in workers exposed
 (19) to that type of fiber.
 (20) Q. And are you aware that reports have
 (21) also appeared in the medical literature that have
 (22) said that tremolite is not a factor and that it's
 (23) the chrysotile itself that causes the disease?
 (24) MR. GERSON: I object to form.
 (25) A. I haven't seen that.

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- (1)
 (2) Q. Are you aware of a paper by Dr.
 (3) William J. Nicolson and Philip L. Andrigan, of
 (4) Mount Sinai, which takes that position, published
 (5) in 1994?
 (6) A. I haven't seen that.
 (7) Q. Let me just ask you a couple of other
 (8) things.
 (9) You mentioned earlier, Mr. Will asked
 (10) you about the first worker you ever saw when you
 (11) were back at England that had mesothelioma.
 (12) What was the name of that worker?
 (13) A. Mr. Archibald Vernon.
 (14) Q. Archibald Vernon?
 (15) A. V-e-r-n-o-n.
 (16) Q. And you said that Mr. Vernon was
 (17) exposed to crocidolite asbestos during his work?
 (18) A. Yes.
 (19) Q. Is it also true he was exposed to
 (20) chrysotile asbestos?
 (21) A. Yes, I said that.
 (22) Q. Do you know if the chrysotile
 (23) asbestos which Mr. Vernon was exposed to contained
 (24) tremolite or not?
 (25) A. No. I don't.

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- (1)
 (2) Q. You mentioned a minute ago about
 (3) these British asbestos regulations.
 (4) I believe you told us that these went
 (5) into effect in 1931?
 (6) A. They were promulgated in 1931. They
 (7) took effect in '33.
 (8) Q. And at that time, was the government
 (9) agency in England, called the factory inspector,
 (10) charged with going around the different factories
 (11) and enforcing the asbestos regulations in England?
 (12) A. Yes.
 (13) Q. And when you came to Union Carbide, I
 (14) think in '82 -
 (15) A. '82.
 (16) Q. - were you aware that Union Carbide
 (17) at that time had British subsidiaries?
 (18) A. At that time? No.
 (19) I probably learned about them
 (20) subsequently.
 (21) Q. Did you learn that Union Carbide had
 (22) had British subsidiaries going back historically
 (23) before that time?
 (24) A. I don't understand what you mean.
 (25) Q. Well, did it come to your attention

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- (1)
 (2) that Union Carbide had a subsidiary called Union
 (3) Carbide U.K. that it had owned for some years
 (4) before 1982?
 (5) A. I assumed that they had owned it for
 (6) some time.
 (7) Q. Do you know how long they had owned
 (8) it?
 (9) A. No.
 (10) Q. Do you know that it was at least back
 (11) into the 1960's, if not before?
 (12) A. I don't know.
 (13) Q. Did you ever see, while you were at
 (14) Union Carbide, did you ever see any letters or
 (15) reports from the Union Carbide subsidiary in
 (16) England called Union Carbide U.K. that came back
 (17) to the medical director's office at Union Carbide
 (18) in New York City about asbestos and health?
 (19) A. I know I saw some. There was some
 (20) correspondence that took place when I was at Union
 (21) Carbide with that entity, but I don't remember
 (22) what it was in relationship to.
 (23) Q. Do you know if it had anything to do
 (24) with asbestos and health?
 (25) A. I don't remember.

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- (1)
 (2) Q. Do you have any information at the
 (3) present time as to the type of amosite used at
 (4) Conwed?
 (5) A. Type?
 (6) Q. Type. Where it came from?
 (7) A. I am aware amosite only comes from
 (8) one place.
 (9) Q. That is South Africa?
 (10) A. From the Northeastern Transvaal in
 (11) South Africa.
 (12) Amosite stands for Asbestos Mines of
 (13) South Africa. It is an acronym.
 (14) Q. So your understanding is amosite
 (15) would have come from South Africa?
 (16) A. Yes.
 (17) Q. Do you know what grade it was?
 (18) A. No.
 (19) Q. And do you know, do you have any
 (20) information at the present time as to the time
 (21) period that this amosite was purchased by Conwed
 (22) for its use out there and the amount?
 (23) A. No.
 (24) Q. You mentioned a minute ago, in
 (25) response to a question by Mr. Will, about these

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- (1)
 (2) environmental exposures to asbestos down in South
 (3) Africa.
 (4) Have you ever seen any published
 (5) studies in this country about environmental
 (6) exposures in the U.S. to spouses of workers in
 (7) asbestos plants, manufacturing plants?
 (8) A. Yes.
 (9) Q. One of those Tunarco plants in
 (10) Patterson, New Jersey?
 (11) A. That wasn't one that I have seen.
 (12) Q. Which ones can you recall?
 (13) A. I can recall a publication I was
 (14) involved in, in Raybestos, Manhattan.
 (15) Q. And in that particular study, was
 (16) there any disease at all shown among the spouses
 (17) of the workers in the Raybestos Manhattan plant
 (18) related to asbestos?
 (19) A. We thought that we had, my co-worker
 (20) and I thought that we found some cases of
 (21) relatives who had lived with a worker who had
 (22) worked in that Raybestos plant.
 (23) He developed asbestos-related health
 (24) factors.
 (25) Q. Which particular Raybestos plant was

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- (1)
 (2) this?
 (3) A. Stratford, Connecticut.
 (4) Q. And this is published? This is work
 (5) you did at the time you were working for Raybestos
 (6) Manhattan Company?
 (7) A. Correct.
 (8) Q. Are you aware that the Minnesota
 (9) Department of Health screened the spouses of
 (10) Conwed workers at Cloquet, Minnesota to see if
 (11) they had asbestos-related disease?
 (12) A. No. I am not.
 (13) Q. Are you aware of what the current
 (14) OSHA standard is in the U.S. for exposure to
 (15) chrysotile asbestos in workplaces?
 (16) A. It has gone down to 0.1, I believe.
 (17) Q. Are you aware that it has been
 (18) reduced to .05 fibers per CC of air?
 (19) A. Well, then it has just gone down. It
 (20) has been reduced within the last month.
 (21) Q. Are you aware of the new OSHA
 (22) asbestos standards that came into effect in August
 (23) 1994?
 (24) A. August '94?
 (25) Q. Right.

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- (1)
 (2) A. That is what we are just referring
 (3) to.
 (4) Yes. I haven't read it.
 (5) Q. O.K. And are you aware that that
 (6) applies equally to chrysotile asbestos as to
 (7) amosite or crocidolite?
 (8) A. Yes. OSHA has never recognized the
 (9) difference, in spite of the rest of the world
 (10) having done so.
 (11) Q. You are aware that OSHA is the U.S.
 (12) Government agency that regulates hazards in the
 (13) workplace like factories?
 (14) A. Yes.
 (15) Q. And this particular OSHA standard
 (16) deals with exposure to asbestos in the workplace
 (17) such as factories that use asbestos in
 (18) manufacturing processes?
 (19) A. Correct.
 (20) Q. And I take it that you disagree with
 (21) OSHA's position as to how they regulate chrysotile
 (22) asbestos in relation to other fiber types in the
 (23) workplace?
 (24) MR. GERSON: Objection to form.
 (25) A. I didn't say that.

1 Lewinsohn
 2 MR. BROWNSON: That is all I have.
 3 EXAMINATION BY
 4 MR. WILL:
 5 Q. Doctor, one follow-up.
 6 To your knowledge, did Union Carbide
 7 U.K. British subsidiary have any involvement with
 8 asbestos?
 9 A. My knowledge?
 10 Q. To your knowledge.
 11 A. At this moment in time, I really
 12 don't know.
 13 MR. WILL: O.K. That is all I have.
 14 MR. BROWNSON: I will say, for the
 15 record, as we have done in the past, I will
 16 take charge of the original transcript and
 17 file it with the court, and then I also
 18 want a copy.
 19 (Continued on next page.)
 20
 21
 22
 23
 24
 25

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1 Lewinsohn
 2 MR. WILL: Dr. Lewinsohn will want
 3 to read it and sign the deposition, as he
 4 did with his first one.
 5 (Time noted: 11:40 a.m.)
 6
 7 Subscribed and sworn to before me
 8 this ____ day of _____, 1994.
 9 _____
 10
 11
 12
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1
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 4 STATE OF NEW YORK } ss.:
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 8 within and for the State of New York, do
 9 hereby certify that I reported the
 10 proceedings in the within-entitled matter,
 11 and that the within transcript is a true
 12 record of such proceedings.
 13 I further certify that I am not
 14 related, by blood or marriage, to any of
 15 the parties in this matter and that I am
 16 in no way interested in the outcome of
 17 this matter.
 18 IN WITNESS WHEREOF, I have hereunto
 19 set my hand this ____ day of _____,
 20 1994.
 21 _____
 22 PAUL KIRSCHEN, CSR
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DOYLE REPORTING, INC. - 212-867-8220

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 2 November 18, 1994
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DOYLE REPORTING, INC. - 212-867-8220

UCAREF00011834

Look-See Concordance Report

UNIQUE WORDS: 966
TOTAL OCCURRENCES: 3,387
NOISE WORDS: 385
TOTAL WORDS IN FILE:
11,014

SINGLE FILE CONCORDANCE

CASE SENSITIVE

PHRASE WORD LIST(S):
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NOISE WORD LIST(S):
NOISE.NOI

COVER PAGES = 3

INCLUDES ONLY TEXT OF:
QUESTIONS
ANSWERS
COLLOQUY
PARENTHETICALS
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DOYLE REPORTING, INC.

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IN THE CIRCUIT COURT OF COOK COUNTY, ILLINOIS
COUNTY DEPARTMENT, LAW DIVISION

----- -X
BOARD OF EDUCATION OF :
CITY OF CHICAGO, :
Plaintiff, :
vs. : No. 92 L 9934
A, C, and S, INC., et al., : Judge
Defendants. : Michael Gallagher
----- -X
EVANSTON COMMUNITY CONSOLIDATED :
SCHOOL DISTRICT NO. 65, et al., :
Plaintiffs, :
vs. : No. 92 L 9933
A, C, and S, INC., et al., :
Defendants. :
----- -X
BOARD OF EDUCATION OF :
SCHOOL DISTRICT NO. 211, et al., :
Plaintiffs, :
vs. : No. 92 L 9932
ABITIBI ASBESTOS MINING CO., :
et al., :
Defendants. :
----- -X
BOARD OF EDUCATION :
TOWNSHIP HIGH SCHOOLS, :
et al., :
Plaintiffs, :
vs. : No. 92 L 9927
A, C, and S, INC., et al., :
Defendants. :
----- -X

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