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

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

This Document Relates To:

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MINNESOTA
FIFTH DIVISION

CONWED CORPORATION,

Plaintiff,

-against-

UNION CARBIDE CORPORATION, Civil Action
No. 5-92-88

Defendant and
Third-Party Plaintiff,

-against-

OWENS-CORNING FIBERGLAS
CORPORATION, et al.,

Third-Party Defendant.

December 9, 1996
9:25 a.m.

Deposition of ALLEN ROBERT GIBBS, taken
by Plaintiff, at the offices of Kelley Drye &
Warren LLP, 101 Park Avenue, New York, New York
10178, before Evelyne Joseph-Pauline, a Shorthand
Reporter and Notary Public within and for the
State of New York.

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deptest. UC.

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ALSO PRESENT:

JULIE STUART

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UCAREF00007194

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2 A L L E N R O B E R T G I B B S,
3 business address being Department of Pathology,
4 Llandough Hospital, Penarth, South Glamorgan,
5 United Kingdom, having been first duly sworn by
6 the Notary Public (Evelyne Joseph-Pauline), was
7 examined and testified as follows:

8 EXAMINATION BY MR. BROWNSON:

9 Q. Dr. Gibbs, as I told you, my name is
10 Bob Brownson and I represent the Conwed
11 Corporation to take your deposition and I assume
12 you've had your deposition taken before?

13 A. Yes.

14 Q. You know the ground rules and are
15 familiar with the deposition procedure?

16 A. Yes.

17 Q. Two things; first of all, when you
18 are answering questions, although we have two
19 court reporters today, it's important that you
20 answer audibly and clearly as opposed to a shrug
21 of the shoulder or mumbles because they have
22 difficulty with those sorts of things.

23 A. Yes.

24 Q. And don't speak when I'm speaking and
25 I'll do the same so there's only one person

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Gibbs

speaking at a time and we'll try to remain cognizant of that so we don't cause problems with the record.

A. Okay.

Q. Dr. Gibbs, Alan Gerson has just handed me a copy of your curriculum vitae dated -- I'm not sure it has a date at all, but it appears to be your most recent curriculum vitae, correct?

A. Yes.

Q. Is this current and up to date and correct as far as you know?

A. I think there's one paper missing, the last one that came out just a week or two back.

Q. What paper is that?

A. It's about SV-40 and mesothelioma.

Q. Where was that paper published?

A. Thorax.

MR. BROWNSON: Why don't we mark that then as Exhibit 1, the copy of the curriculum vitae.

(Plaintiff's Exhibit 1 for identification, copy of curriculum vitae.)

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Gibbs

Q. I'll show you what we've now marked as Exhibit No. 1 and ask if that's a copy of the curriculum vitae that you provided to Mr. Gerson this morning?

MR. GERSON: For the record, I actually received this version on Friday.

MR. BROWNSON: The one we have in front of us?

MR. GERSON: Yes.

Q. Let me begin by asking you a few questions about items in the curriculum vitae. I note that you are a member of the Royal College of Pathologists?

A. Yes.

Q. Are you a fellow?

A. I am, yes.

Q. Can you describe for us the -- pardon me for the confusion here -- but describe for us the designations or positions in the Royal College of Pathologists; in other words, you can be a fellow, the level of membership?

A. You start as a fellow and that is obtained nearly always, but there are exceptions, and an examination in pathology, which is the

Gibbs

equivalent of the American Board Exams and then when you've been a member for, I think it's either ten or twelve years, then you usually become a fellow.

Q. As I understand it then you generally become a member by way of examination?

A. Yes.

Q. After being a member for ten to twelve years you can become a fellow but is there any additional requirement there that you actually have to practice in pathology or do some pathology during that time?

A. Yes, you would be expected to be in practice doing pathology during that period.

Q. Okay. Then you, of course, have been?

A. Yes.

Q. When did you first become a member of the Royal College of Pathologists?

A. 1978.

Q. You became a fellow when?

A. That would have been either '88 or 1990, I can't remember which.

Q. Somewhere in that area. Have you

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Gibbs

2

held any positions as an officer in the Royal

3

College?

4

A. No.

5

Q. Are there such positions?

6

A. Yes, there are various positions in
the Royal College.

8

Q. Is that something that you might do
someday or are you the type of person that
doesn't have the time or what's your feeling on
that?

11

12

A. It's something that I might possibly
do but at a later age. It really requires often
a scaledown of regular diagnostic commitments and
sometimes reduction in research activity. It's
something I wouldn't contemplate at the minute.

14

15

16

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Q. You also indicate you are a member of
the NIOSH, N-I-O-S-H, Silicosis Committee in the
United States, right?

18

19

20

A. Yes.

21

22

Q. When did you become a member of that
committee?

23

24

25

A. I think that was around 1985 and that
lasted about three to four years. We prepared a
monograph and silica and silicate lung disease

Gibbs

and that committee then finished.

Q. That was my question. That no longer is an active committee?

A. No.

Q. You published a paper?

A. Yes. Published in the Alcoves of Pathology.

Q. So I don't have to waste a lot of time here, you've listed that in your publications?

A. Yes, the author was Craighead.

Q. That would be about '88 or so?

A. Yes, somewhere about '88 or '89.

Q. "Craighead, et al., Diseases Associated with Exposure to Silica and Nonfibrous Silicate Minerals."

A. Yes.

Q. Do you recall the membership of that committee?

A. I remember most people I think, yes.

Q. Can you recite as best you recall who the members were?

A. John Craighead, Gerald Abraham, Francis Green, Jack Ruttner and Russell Harley

Gibbs

and Jerome Klineman.

Q. Were all of these members who you've mentioned listed as contributing authors on the papers that were produced for the report?

A. Yes.

Q. You also indicate that you're a member of U.S.-Canadian Mesothelioma Reference Panel in 1995?

A. Yes.

Q. Describe for us what you've done in connection with that membership?

A. Cases are circulated amongst the membership of that panel and then gives opinion on those cases and sends -- we send them back to Dr. Churg in Vancouver who then correlates the opinions and I think communicates with the referring pathologist, so basically I receive slides on different cases and send my opinion back on what I think the lesion is not knowing what the others think and then those opinions are then correlated together and the cases reviewed later.

Q. How long have you been a member of the panel? It's now late '96, has it been for

Gibbs

approximately two years? Do you remember when you began this?

A. I think it was early '95.

Q. So it's been nearly two years?

A. Yes.

Q. Are you required to review a certain number of cases or do you just review them as they come or how does that work?

A. I review them when it comes and Dr. Churg coordinates it.

Q. Do you know what the current membership of the panel -- first of all, is the current membership of panel all pathologists?

A. I think so.

Q. Are there others in Great Britain other than yourself?

A. No.

Q. Do you know what the current membership is?

A. It's about eight or nine people.

Q. Is Dr. McCayo (phonetic) one of those?

A. No, he retired from the panel and few years back, I think.

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Gibbs

Q. Do you know, is Dr. Klineman a part of the panel?

A. No.

MR. GERSON: "No," you don't know or "no," he is not?

THE WITNESS: I don't think he is.

Q. About how many cases have you reviewed as a member of this panel over the past two years?

A. I guess -- I suppose probably about 50, 60. I couldn't remember precisely, but somewhere around 50 or 60, I think.

Q. Do you know what -- first of all, is it Dr. Churg who determines what cases will be reviewed?

A. I think anything that is sent into the panel for an opinion is reviewed.

Q. Dr. Churg doesn't do some screening when it comes around then does a review, does he, maybe for an initial determination or screening to determine whether this is a case to be reviewed?

A. I can't say for certain.

Q. But the cases come from him?

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UCAREF00007203

1 Gibbs

2 A. Yes.

3 Q. Of the 50 or 60 cases that you have
4 seen, in those instances is it a situation where
5 all of the members of the panel review the cases
6 or are they just sent to certain members?

7 A. I think all the members of the panel
8 participate in the examination of the slides.
9 Now whether every member examines every case I'm
10 not sure because I know there are certain -- I
11 don't always receive sequential numbers, so there
12 may be gaps between some numbers, so whether they
13 are sent out to two-thirds of the panel and
14 two-thirds of another, I don't know.

15 Q. As far as you know, is there any
16 differentiation in this panel in terms of area of
17 expertise or interests; in other words, certain
18 people see certain kinds of cases?

19 A. No, it's predominantly -- it's
20 mesothelial diagnosing problems so the panel has
21 interest and experience in doing mesothelial
22 diagnosis.

23 Q. As part of your duties on this panel
24 do you ever -- well, when you review slides do
25 you issue a report or simply fill out a report or

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UCAREF00007204

1 Gibbs

2 call in or what do you do?

3 A. I basically write a short report on
4 what I think it is.

5 Q. Then these are sent to Dr. Churg?

6 A. Yes.

7 Q. In your experience on these 50 or 60
8 cases you've seen have your reports dealt with
9 the diagnostic issues?

10 A. Yes.

11 Q. In any of those cases have you sent
12 tissue on to Dr. Pooley to do a fiber burden
13 analysis?

14 A. No, the panel is concerned with
15 diagnostic issues.

16 Q. So no ideological determination made?

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

18 Q. Do you get actual tissue or slides
19 sent to you? How does that come to you?

20 A. Are you talking about the panel?

21 Q. Yes, the panel.

22 A. Slides.

23 Q. Who prepares the slide, a pathologist
24 or Dr. Churg?

25 A. Prepared in Dr. Churg's laboratory.

1 Gibbs

2 (A recess was taken.)

3 Q. Just so I'm clear how this works,
4 Dr. Churg gets tissue, cuts slides and circulates
5 these slides?

6 A. Yes.

7 Q. Unstained slides, I take it?

8 A. Couple of stained slides and a couple
9 of unstained slides.

10 Q. And in terms of the tissue that
11 slides are cut from, is that then maintained by
12 Dr. Churg or back to a referring pathologist or
13 what happens to that?

14 A. I don't know.

15 Q. Let me ask you this: As a member of
16 the panel on which you currently are, if you
17 wanted to do some studies or research would you
18 have access to the tissue repository or tissue
19 bank?

20 A. I think so. If I spoke to Dr. Churg
21 I would think there was some arrangement that if
22 I wanted extra slides.

23 Q. I take it you haven't done that for
24 research purposes?

25 A. No, because there are three or 4,000

Gibbs

mesothelials in my file, a lot of material to look at and only utilize it in some unusual variant that I would be particularly interested in.

Q. You also list a membership in the Committee on the Medical Effects of Air Pollutants. I'm not familiar with that, what's that?

A. That's a Department of Health committee and it's multi-disciplinary and multi-professional in terms of that. There are epitheliologists, physicians, toxicologists on the committee and it is really to look at various issues in terms of outdoor pollution; predominantly has been concerned with that or air pollution, such things as ozone and fine particles and so forth, and I'm the pathology member of that panel, so they really want advice from a number of different medical disciplines.

Q. Let me just back up: How was it that you came to be a member of the Canadian-American mesothelial panel, review panel? Is that something you apply for or did someone invite you?

Gibbs

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2 A. Dr. Churg came to me and asked if I
3 would like to become a member of the panel. I
4 presume that he probably discussed it with some
5 of the sitting members of the panel at the time
6 and there was an agreement that they should
7 invite me.

8 Q. Are you on for a certain amount of
9 time or indefinite?

10 A. I don't know, I think it probably
11 goes on for quite a period of time unless there
12 is a request on either side to terminate it, but
13 I don't think it's a fixed term.

14 Q. Do you get compensated for that or
15 you do it as a service?

16 A. That's a service, no compensation.

17 Q. How about in terms of just laboratory
18 costs and that sort of thing, you just bear that
19 all yourself?

20 A. Yes.

21 Q. With respect to this medical
22 committee on the medical effects of air
23 pollutants, since -- you've been a member of that
24 for two years?

25 A. Yes.

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Gibbs

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Q. Has it ever concerned itself with asbestos?

A. No.

Q. Going back to the -- I'm jumping ahead a little bit -- but going back to the mesothelial reference board, that's arising out of Minnesota?

A. I wouldn't know where they came from.

Q. When a case is presented to you do you get any background information as to where it came from?

A. No, we're just given a brief clinical history, not told where a case comes from or what issue it concerns, it's purely a diagnostic problem.

Q. Let me ask you some questions in terms of your deposition here today. What materials have you reviewed in preparation for the deposition today?

A. I've read various papers and documents.

Q. Can you describe for me what those are?

A. There's a number of papers concerning

Gibbs

the mineralogy of the Coalinga asbestos deposit. There's some experimental papers, some leaching studies, there's a paper commenting on two previous papers concerning the Conwed plant. And there are some studies of the -- of mine and factory samples that were done mineralogically.

Q. You've been looking through a pile of materials which you brought with you here today. Does that constitute the material you've reviewed for the deposition?

A. No, not the total. There's about another, same thickness, of other papers which includes some of the mineralogical things I referred to.

Q. Do you have reference to them in your notes or did you bring them with you?

A. It's sort of listed in a brief way of headings.

Q. Are those your handwritten notes?

A. Yes.

Q. Do those notes concern the lists reviewed in this case?

A. Two or three papers that it doesn't actually have on these notes.

Gibbs

Q. What I'd like to do is preserve on the record the list of materials you've reviewed. Do you want me to go through and read them or do you want to do that?

A. I can go heading by heading if you like.

Q. Why don't we do that?

A. It's a paper by Bright in 1959.

MR. GERSON: Excuse me, do you want the doctor to read from his notes or just the documents initially that he has with him?

MR. BROWNSON: I want to be able to identify the materials you've reviewed and probably the easiest way is just to have Dr. Gibbs read the names of the papers or materials and we can talk later about what comments you might have in your notes, but at this point I'm just interested in listing the materials.

MR. GERSON: Both what's here and what's listed in his notes?

MR. BROWNSON: Yes.

MR. GERSON: Do you want to distinguish here what's in his notes?

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Gibbs

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2 MR. BROWNSON: I just want to get a
3 listing.

4 MR. WILL: Some are just too
5 voluminous.

6 MR. BROWNSON: Just a listing or
7 catalog.

8 A. There's a paper 1959 by Bright and
9 others and the 1959 Exploration Program on the
10 Condor Asbestos Properties. Then in 1965 Mumpton
11 and Thompson Mineralogy of the Coalinga,
12 C-o-a-l-i-n-g-a, Asbestos Deposit, and in 1967
13 Properties of Union Carbide Chrysotile. 1968 --
14 this is a hard name to pronounce -- Chwastiak,
15 C-h-w-a-s-t-i-a-k, Properties of Colloidal
16 Chrysotile Asbestos from Coalinga. And then
17 there's an undated one by Woolery, W-o-o-l-e-r-y,
18 and Cohen, I think, I can't quite read my
19 writing.

20 Q. Is that the asbestos paper-making
21 process paper?

22 A. No, it's just listed New Age
23 Chrysotile.

24 Then there's Wales Journal, Condor
25 Asbestos Lab, 1958; 1967, Coleman Serpentine

Gibbs

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2 Mineral Analyses and Physical Properties; 1971,
3 Bank, et al, U.S. Department of the Interior
4 Bureau of Mines, Health and Safety Technical
5 Report Health Study; Calidria Health Report, King
6 City operation; 1987, Muhler, M-u-h-l-e-r, et al,
7 Injection and Experiment in the Test of
8 Carcinogenicity of MMH; 1996, Miller, et al,
9 Fiber Size Determination of Distribution of
10 Calidria, c-a-l-i-d-r-i-a, Chrysotile; 1992,
11 Rittenghausen, R-i-t-t-e-n-g-h-a-u-s-e-n, et al,
12 A Typical Mesothelial Experimental Toxicology,
13 Volume 44; 1994, Weiss Review of Conwed,
14 C-o-n-w-e-d, Worker Survey and Survey of Worker
15 Spouses; 1995, Wicks, A Review of Powder
16 Extraction Methods Used in Environmental and
17 Health Studies; 1995, Wicks X-ray Defraction
18 Studies of Chrysotile Asbestos Samples; undated,
19 Pooley Report of the Examination of Chrysotile
20 Asbestos Samples from the Asbestos Mine and
21 Processing Plant of KCAC, Inc.; 1995, VanBallan,
22 V-a-n-B-a-l-l-a-n, II, The New Serpentine Thesis,
23 s-e-r-p-e-n-t-i-n-e; Morgan, 1995, Acid Theses of
24 Chrysotile Asbestos in the mines in the Coalinga
25 region of California and from Quebec and British

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UCAREF00007213

Gibbs

Columbia.

And those are the papers that I've reviewed. I think there's one or two others that are not listed there.

Q. Do you recall what those are?

A. There was another one on Morgan leaching theories.

Q. What Morgan is that?

A. Arthur Morgan. It's Morgan and Talbert acid studies of neutron-radiated asbestos. And I think there was one by Yager and others, which was a cytotoxicity study.

Q. Tell me a little bit more about that. Was that a published paper?

A. Yes.

Q. Where was that published?

A. I can't remember.

Q. Do you know when it was published?

A. Early 1980s, I think.

Q. When you say it was a "cytotoxicity study," it was a study of what?

A. I think it was taking basically human macrophages and then subjecting them to chrysotile dusts and seeing if there was

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UCAREF00007214

Gibbs

toxicity to the cells.

Q. Was this the paper by Yager and Russo?

A. Yes, it's an environmental research, 1983.

Q. Have you reviewed any other materials in connection with this case or the deposition today?

A. I don't think so specifically.

MR. WILL: He did look at two Mellon papers as well.

THE WITNESS: Yes, I have those.

Q. You have those with you?

A. Yes.

Q. Two reports of the Mellon Institute, one in 1966 and one in 1971?

A. Yes.

And there's also a sort of -- brief sort of report from Chadfield.

Q. The report from Chadfield is dated when?

MR. WILL: Well, I'll just tell you what it is. He wanted to know the formulas, the ingredients of Conwed sealing test so we got that

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1 Gibbs

2 from Eric Chadfield which he got apparently from
3 the lawyers in the case.

4 Q. So what you got from Chadfield is a
5 report to you saying the formulas of the Conwed
6 tiles?

7 MR. WILL: It's not the cover letter
8 saying here are the ingredients.

9 THE WITNESS: Do you want to look at
10 it?

11 MR. BROWNSON: Not this minute.
12 Would it be possible to get a copy of this stuff
13 or would that have to come later?

14 MR. GERSON: If you don't need to
15 reference it during the deposition I could
16 have -- or we don't need to look at it I can have
17 copies made by the time we conclude, so it's your
18 call.

19 MR. BROWNSON: Let's not start that
20 now but I don't think we're going to spend too
21 much time looking at this.

22 MR. GERSON: Okay, you let me know
23 when.

24 Q. Anything other than the documents you
25 just listed, Dr. Gibbs? You also mentioned the

Gibbs

notes you prepared and do those notes contain any other information or conclusions or impressions or what do we have there?

A. The notes basically put various summary statements about the papers as I reviewed them and there's just one other sheet of paper on what I've sort of been told by the Conwed plant.

Q. In addition to the -- well, before we get to that, have you seen any of the reports or records or materials from a study that Dr. Lewinsohn has done of the workers of the mine and mill in King City?

A. There was -- I've just seen the papers described, the dust samples from the plant.

Q. These would be the air samples?

A. Yes.

Q. When you say "papers," are they the actual little sample reports or are they some summary or compilation of those or what?

(Witness handing document.)

A. It's that.

Q. Is this one of the papers you had previously described in your list?

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UCAREF00007217

1 Gibbs

2 A. Yes, I think so.

3 MR. BROWNSON: Just for the record,
4 this is an October 4th through 6th, 1971 paper
5 entitled Calidria Asbestos Plant, King City
6 Plant, King City, Monterey City, California,
7 United States Bureau of Mines, Health and Safety
8 Technical Support Center (originating office),
9 U.S. Bureau of Mines, Health and Safety Technical
10 Support Center, Denver, Colorado.

11 Q. And this paper contains some data
12 concerning air levels at the mine and mills as I
13 understand it; is that correct?

14 A. Yes.

15 Q. Do you know if any of these air dust
16 samples were analyzed using transmission
17 electrons?

18 A. I think it phased electron copy.
19 Whether any were later looked at, I don't know.

20 Q. Do you know if any fibers of five
21 microns in length were in these samples?

22 A. I think they were concentrating on
23 ones above five.

24 Q. Have you seen any air data with
25 respect to dust, calidria chrysotile dust, other

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1 Gibbs

2 than the air data contained in that paper?

3 A. No.

4 Q. Have you reviewed any depositions of
5 any people either taken in this case or other
6 cases with respect to calidria asbestos and
7 health effects?

8 A. No.

9 Q. Have you had any discussions with
10 Professor Pooley about asbestos?

11 A. Not recently, but in the past we've
12 discussed it a few times. You know, it's come up
13 in a general issues and we've been talking about
14 chrysotile.

15 Q. You mentioned earlier that one of the
16 things you looked at was the report by Professor
17 Pooley of samples taken of the mine in
18 California; is that correct?

19 A. I think it's the mine at the
20 processing plant.

21 Q. Do you know if Dr. Pooley had gone
22 out there to collect those samples?

23 A. I believe he had.

24 Q. Those are samples he collected and
25 did a mineralogical test of?

Gibbs

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A. Yes.

Q. Have you seen any other data or papers or materials concerning those samples?

A. No.

Q. Do you know if Professor Pooley retains the samples?

A. I don't know.

Q. Have you ever seen the samples?

A. No.

Q. Are you familiar with any work that Professor Pooley has done with lung tissue or other tissue of calidria-exposed individuals?

A. I don't know if he did any samples of calidria-exposed individuals but I can't be certain.

Q. I take it from that answer that you have not collaborated with him in looking at such cases?

A. That's correct.

Q. As far as you know, and, again, I know you've seen a lot of cases where you don't know exactly where they come from, but as far as you know have you ever analyzed any cases of calidria-exposed people?

Gibbs

A. Not to my knowledge.

Q. Do you recall ever working on a case of a person named Clayborne Korry, K-o-r-r-y, which arose out of Texas?

A. No, the name is not familiar to me.

Q. That was an esophagal cancer?

A. No.

Q. Have you ever done any work or any analysis on a case of malignant mesothelioma in a James Mant, M-a-n-t?

A. No.

Q. He was a Conwed worker by the way.

A. No, I don't recall him.

Q. Other than the samples that Dr. Pooley took on his trip to the mine and mill in California and analyzed, are you aware of any other analysis Dr. Pooley has done with respect to the calidria air samples, calidria or samples of calidria or tissue containing calidria fibers?

A. No.

Q. You mentioned in addition to reviewing the documents you made some notes concerning information you had received concerning the Conwed plant and let me ask you

1 Gibbs

2 from whom you received that information?

3 A. From Mr. Will.

4 Q. Was this based upon some discussions
5 with Mr. Will or did he show you anything?

6 A. Based on discussions.

7 Q. Other than speaking to Trevor Will
8 have you obtained information concerning the
9 Conwed case or the Conwed plant or Conwed workers
10 from anyone else?

11 A. No, the only thing I had was that
12 report by Weiss on the two studies.

13 Q. We'll take a look at that in just a
14 minute but have you spoken to Dr. Weiss?

15 A. No.

16 Q. About this issue, those studies?

17 A. No.

18 Q. Have you ever collaborated or worked
19 with Dr. Weiss in any other matters?

20 A. No, I've read a lot of Dr. Weiss'
21 papers but I don't recall ever meeting him and
22 I've not collaborated with him.

23 Q. So you're familiar with him by
24 reputation but not a personal acquaintance?

25 MR. WILL: Well, by reading his

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Gibbs

papers.

Q. Obviously you wouldn't read his papers if you didn't think he was reputable?

A. No, by reading his papers.

Q. Have you ever had any discussions with Ed Ilgren?

A. I have discussed with Ed Ilgren in the past on this.

Q. Has he conveyed to you any information other than what you've described to us with respect to the case?

A. No.

Q. When did you first begin your work in connection with this case?

A. Really just -- I think I was contacted six or eight weeks ago.

Q. Who contacted you at that time?

A. Mr. Gerson.

Q. Was it at that point that Mr. Gerson sent you some of this material?

A. Yes.

Q. Did all of the material you have described to us come from Mr. Gerson or did some of it come from other sources?

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Gibbs

A. I would say 90 or -- about 90 to 95 percent came from Mr. Gerson and there's one or two papers from the files.

Q. Excuse me, I didn't --

A. From files.

Q. Which files were those?

A. Sort of things I keep in my --

Q. Okay, from your own files?

A. Yes.

Q. Can you tell us without wasting a lot of time on the question which of the papers came from your own files?

A. I can't honestly remember which.

Q. I assume the Weiss file came from Mr. Gerson; is that correct?

A. Yes, because quite a lot of this was -- a fair chunk of it was unpublished.

Q. I would imagine that most of the calidria-type material came from Mr. Gerson?

A. Yes.

Q. And would the material from your own files be some of the files such as the Muhler papers or some of the animal data?

A. Yes.

Gibbs

1
2 Q. So if I can follow the chronology,
3 about six or eight weeks ago you were contacted
4 by Alan Gerson and I assumed he asked if you
5 would be willing to consult and do work on this
6 case?

7 A. Yes.

8 Q. Did you get some description of the
9 case at that time or did that come from Trevor
10 Will?

11 A. Initially what I was told was that
12 this concerned the issue of calidria asbestos.

13 Q. Did this contact come to you in the
14 form of a letter or telephone call or --

15 A. It was a telephone call.

16 Q. I suppose Mr. Gerson has not been
17 over to Great Britain as much as he's liked to or
18 has he?

19 A. No.

20 Q. So a phone call came from Mr. Gerson
21 and you agreed to consult on the case and then he
22 sent you some material; would that be kind of a
23 scart of the chronology?

24 A. Yes.

25 Q. Were there followup discussions with

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Gibbs

Mr. Gerson or anyone else?

A. I think I spoke to Mr. Gerson's legal assistant.

Q. Virginia?

A. Yes, because I had some more material after the first.

Q. Have you been asked by anyone in connection with this case or otherwise to review tissues or x-ray films or medical records of workers at the mine and mill in King City, California?

A. No.

Q. Have you seen any tissues for examination either from Conwed workers or workers at King City?

A. No.

Q. As far as you know is that something that you may do in connection with this case; in other words, have you been told or asked to do such a review?

A. I haven't been asked at this point to do such a review, but if tissues became available then I would be interested in looking at them.

Q. Other than Mr. Gerson's office and

Gibbs

Trevor Will, have you had discussions with others concerning this case?

A. I don't think so.

Q. Prior to being contacted by Mr. Gerson six to eight weeks ago had you ever done any other consultation in Union Carbide cases involving calidria asbestos?

A. No, but I think I was originally asked by Dr. Ilgren about two years ago whether I would be interested in looking at any calidria cases and I said yes and I think that's where it was left and nothing happened until six to eight weeks ago.

Q. So Dr. Ilgren asked you two years ago if you wanted to do this and you didn't actually do anything until this material six to eight weeks ago?

A. Yes.

Q. So the doctor told you he was putting together an epidemiological study?

A. Yes.

Q. As you understand it are you to play any role in it?

A. It's possible if he may retain

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Gibbs

samples we may look at it.

Q. Do you mean tissues samples?

A. Yes.

Q. You're not an epidemiological analyst. Would your role be to examine the tissue?

A. My role would be to examine the tissue.

Q. Would that be for purposes of diagnosis or what?

A. That may be partly to do with diagnosis and it would be that we would if we were allowed to also look at what's in the lung tissue in terms of mineral particles.

Q. In terms of an examination of mineral particles, if you were asked to do that would that be something you would ask Dr. Pooley to do?

A. Yes.

Q. As I understand it -- correct me if I'm wrong -- in your own work in recent years when the issue comes up of examination of tissues for mineral particles or mineral content is that work that you then sent to Dr. Pooley for his analysis?

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Gibbs

1
2 A. Yes, all our research work is done as
3 a team basically because we're interested in how
4 pathological changes occur in the lung and how to
5 relate to mineral particle burdens and so we have
6 quite an active research program into that.

7 Q. But I'm trying to get the delegation
8 of duties, so to speak.

9 A. Normally what happens is I receive
10 the tissue, I take whatever samples that I think
11 are necessary for assessing the pathology part of
12 it and then I would then give to Professor Pooley
13 samples from the lung tissue which I think are
14 representative of the lung which are suitable for
15 analysis and then Professor Pooley does the
16 analysis.

17 Q. And he does a mineralogical assay?

18 A. It could be fibers or non-fibers as
19 well, we are interested in a number of different
20 particles, basically inorganics.

21 Q. In terms of analyzing tissues for
22 asbestos mineral content in the course of your
23 practice over the, say the past five years, have
24 you referred such analysis to anyone other than
25 Professor Pooley or does he do all of that?

1 Gibbs

2 A. He does all of that.

3 Q. Have you asked him for in connection
4 with tissues you've looked at, analyzed any other
5 tissue other than lung tissue or asbestos mineral
6 content or fiber burden?

7 A. I think we've done a few laryngeal
8 biopsies on occasion and we've done pleural,
9 p-l-e-u-r-a-l, samples and we've done the odd
10 lymph node, but it's something that we are
11 interested in pursuing.

12 Q. That's where I was leading to. Has
13 Dr. Pooley looked at any lymph nodes and you have
14 done so, correct?

15 A. Very small number but not enough to
16 draw any firm conclusions.

17 Q. Is that an area that you and
18 Professor Pooley are pursuing at the present
19 time?

20 A. Not at the present time but it's
21 something on the back burner, it's something that
22 I have thought that we should actually look at.

23 Q. I'm jumping ahead a little bit but as
24 long as we're on the topic, as I understand it
25 Professor Pooley is of the opinion that

Gibbs

chrysotile fiber once in the lung tends to be cleared from the lung, but it tends to go to other parts of the body as opposed to clearing out of the lung. Is that a fair summary?

A. Well, it's cleared out of the lung but it goes to other parts of body.

Q. In connection with this analysis of lymph nodes, is that one of the things that you are interested in, in where this fiber goes?

A. We would be interested in looking at not only chrysotile, but amphiboles as well as -- and I've got another pathologist who is working under me who has done his thesis on perithelial. One of the things we thought we'd look at peritoneal tissues and see what fibers are in there and controls and various asbestos-related diseases, but that's not on the way.

Q. When you say "controls," are you talking about peritoneal epithelials that are asbestos-related or --

A. I'm talking about ordinary autopsies without any asbestos-related disease.

Q. In terms of this project that Ed Ilgren has suggested about an epidemiological

Gibbs

study, have you done any work in connection, seen anything?

A. No.

Q. Have you been told in terms of timing when such tissues will be coming?

A. No.

Q. You mentioned that Trevor Will has given you the facts, Conwed facts. Can you describe for us what facts you've learned about that?

A. Yes, there's health records available in about 300 workers that some of the issues include mesothelioma lung cancer, asbestosis, Clark and diffuse pleural fibrosis, that tiles in the plant that they made contained starch, clays, cellulose, that between 1958 and 1964 amosite was used exclusively, but between 1964 and '66 it became about half amosite and half calidria chrysotile, then from 1966 to 1970 or '71 that the amosite usage reduced and the calidria chrysotile usage increased and then from 1971 to '74 it was all calidria chrysotile.

Q. Any other information?

A. No, that's what I've got listed here.

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Gibbs

Q. Were you shown any records concerning Conwed's purchases of amosite and calidria?

A. No.

Q. In terms of when it was purchased and how much and that sort of thing?

A. No.

Q. In addition to the information you were given about the tile being made of clay, starch and cellulose were you given any information about the use of the mineral or rock wool in the tile?

A. Yes, there's rock wool at least in some of these formulas.

Q. You've received from Eric Chadfield a list of the formulas of Conwed tiles; is that correct?

A. Yes.

Q. From that --

MR. WILL: Just so it's clear, they are actually letters from lawyers in the school board case and actually some of them go back to the State of Maryland case, I think, that list some of the ingredients of rough percentages.

MR. BROWNSON: I know what they are

Gibbs

and where they came from so no need to quibble about that.

Q. What I'm leading to is some information on the types of materials used in the Conwed plant; is that correct?

A. Yes.

Q. You mentioned a minute ago diffuse pleural fibrosis and I know you've written on that. Do you have any thoughts as to whether mineral wool or rock wool used in connection with either amosite chrysotile, clay, starch or cellulose can be a factor in contributing to diffuse pleural fibrosis?

A. I think it unlikely.

Q. Have you ever seen any studies or data on that?

A. There were some European and U.S. cohort studies of rock wool, slag wool and other man-made mineral fiber wools.

Q. So you're familiar with that material?

A. Yes.

Q. Would it be fair to say as far as you're concerned that the rock wool or mineral

Gibbs

1 wool used at the Conwed plant in Cloquet was not
2 a factor in causing mesothelioma among workers?

3 A. Providing it was rock wool. I think
4 as long as the description is accurate and we are
5 sure that it was rock wool.
6

7 Q. Let me ask you this because that's an
8 interesting point. When you say "rock wool," for
9 instance, Conwed has also used mineral wool and
10 what I consider to be slag wool made from slag.
11 Is that what you're referring to as rock wool?

12 A. There's rock wool and slag wool and
13 they are different although they have very
14 similar properties. There is some data both from
15 Europe and from the U.S. that the rate of lung
16 cancer has increased in slag wool workers but the
17 problem is that there are confounders in some of
18 those plants and that that needs to be further
19 looked at, I think, but from the point of view of
20 rock wool I think the evidence indicates that it
21 is not -- it doesn't cause mesothelioma and lung
22 cancer.

23 Q. If we're talking about rock wool,
24 which is actually what some of Conwed used, you
25 would not cause that to be a factor in causing

Gibbs

mesothelioma or lung cancer?

A. No.

Q. By "no"?

A. I don't consider that to be.

Q. Interstitial fibrosis, do you consider that to be something that would contribute to that?

A. I don't think -- there is no evidence that rock wool does not cause interstitial fibrosis, but I think it's possible that if you had nonfibrous particles very -- as with a number of other nonfibrous materials it is possible that you have a gross overload situation that it might.

Q. Would you agree with the notion that if you are exposed to enough dusts, fibrous dusts of different kinds, such as rock wool, mineral wool and even, I suppose, fibrous glass, that it can cause pulmonary fibrosis?

A. I think it comes down to what you call pulmonary fibrosis. I think you could get possibly a slight degree of lung fibrosis but it's unlikely that you would get the severe degrees of pulmonary fibrosis that lead to a

1 Gibbs

2 shortness of breath, finger crackles and actually
3 cause the death of the person.

4 Q. Short of death and short of clubbing,
5 would you agree that there's some milder forms of
6 pulmonary fibrosis that are possible just by
7 heavy burdens of fibrous dust? I'm talking about
8 non-asbestos fibrous dust.

9 A. I think that's possible as you can
10 with nonfibrous dust.

11 Q. Put in simple layman's terms, too
12 much occupational exposure to fibrous dust would
13 be dangerous; is that fair?

14 A. You would want to avoid heavy
15 exposures to dust as you would want to avoid
16 exposures to cigarette smoke.

17 Q. You've described for us the
18 documentation you have reviewed in connection
19 with this case and you've described to us the
20 oral descriptions you've been given. Is there
21 anything else that you know about this case that
22 we have not yet discussed?

23 A. I don't think so.

24 Q. In terms of data that you've
25 reviewed, whether conveyed orally, in meetings,

Gibbs

or in writing?

A. No.

MR. WILL: You mean that he can recall?

MR. BROWNSON: Right.

Q. Are you aware of the fact that this case involves a claim by Conwed Corporation to recoup from Union Carbide the money from Union Carbide Workers' Compensation claims in Minnesota?

A. I just became aware of that in the last few days.

Q. So that's something you just recently learned?

A. Yes.

Q. Have you ever been involved in a case like that before where you've got an employer which has paid Workers' Compensation benefits to workers for asbestos-related disease attempting to recoup the cost of those from a supplier of asbestos?

A. No.

Q. Have you in your work in Great Britain been involved in employee compensation

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Gibbs

cases?

A. Yes.

Q. With respect to asbestos exposure?

A. Yes.

Q. In that capacity have you served on any government panels or been a -- you have to help me here because I'm not familiar with the current system -- been a reviewer of cases?

A. Well --

Q. Why don't you describe for me what your experience has been?

A. Okay. There are basically two situations. There's one which is a governmental Workers' Compensation scheme and I do postmortems on subjects where there is a question that they might have been exposed to a dust which might have been a factor in their respiratory problems during life and was a factor in the cause of death, and I do those postmortems for the coroner and based usually on my findings there will be a decision by the coroner whether that person contracted a disease which was related to exposure; it could be asbestos, it could be silica, it could be coal, a variety of different

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Gibbs

things, and then the coroner will make a verdict of what they call an industrial cause of death or it may be natural causes if he's actually died of something that's unrelated to the dust. There is also a civil litigation system whereby solicitors, as you call lawyers here --

Q. Actually solicitors is a good term.

A. We won't discuss that too much, but they may send me cases for a second opinion or these would be of other cases which had an autopsy done somewhere else and there's a question of the lung findings and I will issue a report on what I find and how that relates to symptoms and problems during life and cause of death.

Q. Are these in compensation cases or in what we would consider here a civil lawsuit?

A. That's a civil lawsuit.

Q. Okay, now here we have -- and I know Britain has a similar system -- we have this distinction where a workman claims two types of claims, one a compensation claim against employer related to employment-related injury or disease and the second thing he can do has actually been

1 Gibbs

2 a lawsuit against people like Union Carbide or
3 others who are not his employer. Do you
4 understand that distinction?

5 A. Yes.

6 Q. In this particular case, although
7 this is a lawsuit by Conwed against Union
8 Carbide, the underlying issue is compensation
9 cases presented by Conwed workers against
10 Conwed. Are you familiar with that fact?

11 A. I understand that, yes.

12 Q. In connection with your practice have
13 you done any work in connection with American
14 compensation cases against employers?

15 A. I don't think I've been involved with
16 employers.

17 Q. Have you been given any information
18 about the obligations Conwed is put to by the
19 Minnesota compensation law in asbestos-related
20 health claims?

21 A. No.

22 Q. As far as you know is that something
23 that will be provided to you for your review in
24 this case?

25 A. I don't know.

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Gibbs

Q. Have you been shown any American Medical Association guidelines of pulmonary impairment which apply under the Minnesota Workers' Compensation scheme?

A. No.

Q. Have you been given any information about the fact that the Minnesota Workers' Compensation law obligates Conwed to pay workers when cases are presented for pulmonary function impairment?

A. No.

Q. You're familiar, of course, it goes without saying, that there are various types of diseases which either are or alleged to be related to asbestos exposure?

MR. GERSON: In general?

MR. BROWNSON: Yes.

Q. Mesothelioma cancer and some would say other cancers, correct?

A. Are you asking?

Q. Well, as a general proposition.

MR. GERSON: Are you asking what some would say or what he would?

MR. BROWNSON: Right.

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Gibbs

A. My understanding is the asbestos-related disorders are basically pulmonary and that includes plaques, diffuse pleural fibrosis mesothelioma lung cancer and lung cancer.

Q. Are you familiar with the fact that in terms of the employee cases presented against Conwed we have all those conditions represented to one degree or another?

A. I believe those are the conditions that are alleged, I don't know of the validity of the diagnosis.

Q. You have not at this point looked at any of the diagnostic materials, I take it, whether there be records or tissues or films?

A. No, I have not.

Q. You are aware, however, that those conditions have been alleged against Conwed, correct?

A. Yes.

Q. Have you ever been called in as a consultant in cases where people have alleged asbestos-related pulmonary impairment and they have been asbestos-exposed but they are also

Gibbs

smokers, obese, getting up in age and sedentary in their habits?

A. Do you mean clinically?

Q. Right.

A. No, my consultancy has been based basically on pathological issues.

Q. That was a poor question, I understand that. What I'm saying is the work you do is you do pathology on people who have many sorts of diseases and in some cases have been exposed to various dusts, correct?

A. Yes.

Q. And I take it that in the course of your practice you have seen any number of people who have alleged they have some sort of asbestos-related disease and have tissue available for your -- lung tissue available for your examination?

A. Yes.

Q. And you simply don't have any evidence of asbestos ideology to their disease?

A. That is correct.

Q. And would you agree with me that in many of these cases you see individuals that are,

Gibbs

for example, long-time smokers, obese, had various pulmonary impairments like bronchitis, pneumonia, all sorts of things?

A. Yes.

Q. And in addition to these sorts of problems they have also had some history of asbestos exposure?

A. Yes.

Q. And those individuals despite that myriad of other problems that they have will present asbestos-related health claims against someone, correct?

A. Yes.

Q. And those cases, I take it, have come to you quite often and you examine them to try to determine --

MR. WILL: I object to "quite often."

Q. Some cases come to you and you determine to determine if in fact the asbestos played a part in the ideology of whatever this pulmonary problem is; is that correct?

A. That's correct.

Q. And sometimes it does and sometimes

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Gibbs

it doesn't; would that be fair to say?

A. Yes.

Q. And in the cases of the British compensation matters you've looked at, have you ever had occasion where despite your opinion that asbestos was not a cause and whatever pulmonary problem was presented that either the government or the employer has gone ahead and awarded compensation anyway?

A. That's happened on occasion.

Q. So sometimes they'll agree with you and sometimes they will not?

A. Well, the --

Q. In terms of awarding compensation?

A. I think in the majority of cases they agreed but there's an occasional case where a different verdict would come in.

Q. Have you seen a study prepared by the Minnesota Department of Health and dated March of 1988 as a result of a screening of Conwed employees and their spouses?

A. No, I've only seen Weiss' comments on that paper.

Q. Have you seen any of the published

Gibbs

papers which arose out of either the surveillance of those workers or the health effects found in the survey?

A. No.

Q. Have you seen any data or studies or reports in connection with a screening of the Conwed workers for asbestos-related disease of the International Paper Workers' Union done in 1986?

A. No, I think that was the Robert and Green study.

Q. So Weiss' comments include critique or commentary on both of those as far as the Department of Health and the Paper Workers' Union?

A. Yes.

Q. Have you seen any of the medical reports by Dr. Thomas Arnold with respect to Conwed workers?

A. No.

Q. Have you seen any reports or materials from pathology by Mark Wick, W-i-c-k --

A. No.

Q. -- who has examined cancer cases

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Gibbs

among Conwed workers?

A. No.

Q. Have you ever seen materials by a pulmonologist in St. Paul, Minnesota by David B. Oham, O-h-a-m?

A. No.

Q. Are you aware of any physician primarily responsible for supporting the Workers' Compensation claims by the Conwed workers?

A. No.

Q. And the same question with respect to a doctor named Terry Clark in Duluth, Minnesota, have you ever seen any of his reports or records

--

A. No.

Q. -- in connection with the Conwed workers?

A. No.

Q. I understand that you are not a radiologist of course; is that right?

A. Correct.

Q. But in the course of your clinical pathology practice do you ever look at x-rays on cases that you're doing pathology on?

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Gibbs

1
2 A. Yes, usually with the radiologist to
3 talk about them.

4 Q. I understand you haven't seen any
5 films on the Conwed workers, correct?

6 A. Correct.

7 Q. Are you familiar with a pathologist
8 by the name of James Flink, F-l-i-n-k?

9 A. No, I don't recall the name.

10 Q. I know that you have been involved in
11 a number of American lawsuits arising out of
12 asbestos exposure; is that correct?

13 A. Yes.

14 Q. In any of those suits as far as you
15 know has this firm from Charleston, South
16 Carolina, Ness Motley Loadholt & Poole, been
17 involved?

18 A. Yes.

19 Q. Have you ever seen any of their cases
20 arising out of the State of Minnesota as far as
21 you know?

22 A. I don't think so.

23 Q. Have you ever been to Minnesota?

24 A. No.

25 Q. Do you have any plans in connection

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1 Gibbs

2 with this case to travel there?

3 A. No.

4 Q. In connection with your work in this
5 case have you been given any indication as to
6 whether you may be called as a witness if the
7 case goes to trial?

8 A. Well, I assume that I was asked to do
9 this deposition because if it does go to trial
10 that they may request me to do that.

11 Q. I know we're jumping ahead, but as
12 you understand it if the case goes to trial what
13 issues or opinions do you expect to give in the
14 case?

15 A. Basically?

16 Q. What issues do you expect to discuss
17 and opinions do you expect to give would be a
18 better question.

19 A. The issues would be the various types
20 of asbestos-related disease and how they relate
21 to exposure to calidria chrysotile asbestos.

22 Q. In rendering those opinions do you
23 expect to rely on animal inhalation or data?

24 MR. GERSON: You mean whatsoever?

25 MR. BROWNSON: Right.

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1 Gibbs

2 MR. WILL: Relating to calidria or
3 relating to anything?

4 MR. BROWNSON: No, no, calidria.

5 A. Well, as far as I have read some of
6 the animal work it will have a bearing on my
7 opinion, but with most of the asbestos-related
8 issues I think the most important evidence is
9 what one has from human studies.

10 Q. You have mentioned a paper by Muhler,
11 which is M-u-h-l-e-r, with respect to calidria.
12 Have you seen any other animal data with respect
13 to calidria?

14 A. It was both, it was the same group,
15 in fact, but the Rittenghausen paper.

16 Q. Are you aware of any other animal
17 data that exists other than the calidria data
18 with respect to those studies?

19 MR. WILL: Well, I mentioned he was
20 given the two Mellon papers. I'm not trying to
21 play guessing games.

22 MR. BROWNSON: Again, I wasn't
23 thinking the Mellon studies but I guess that is
24 animal data now that you mention it.

25 A. No.

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Gibbs

Q. So let me see if I can rephrase it so we have a clear question and answer without Trevor and I talking about the Mellon studies.

Q. Other than the Mellon studies of the animal data with respect to calidria, the Muhle and Rittenghausen studies?

A. I believe so.

Q. As I understand it it's your belief that although animal studies are of some value the valuable data comes from human data or analysis?

A. Yes.

Q. As long as we're on the topic of animal studies, at one point you were affiliated with the animal research center that's run by Dr. Wagner?

A. Yes.

Q. Is that now closed down?

A. Yes.

Q. At the time that that was in operation did they have an inhalation chamber there that they did animal studies?

A. They had several.

Q. Were you involved in some of the

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Gibbs

actual research?

A. I saw some of the pathology from some of the animal studies but only on an ad hoc basis. I wasn't involved in any of the design of the studies and so forth. My main collaboration was looking at human cases with Dr. Wagner but I did see some of the animal tissues.

Q. During the time that Dr. Wagner had the medical center in operation do you know how many animal inhalation studies he did with respect to data?

A. I can't give a precise number but there were quite a lot.

Q. But all of that was not published, I take it?

A. No, some were not.

Q. Some were published and some were not?

A. Yes.

Q. And some of it dealt with rats or mice; do you know if other animals were used in those experiments?

A. I'm not aware that any other animals were used.

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Gibbs

Q. You mentioned that the most important thing for you in terms of asbestos health is human data and what human data have you seen with respect to calidria asbestos?

A. I haven't seen any based on calidria.

Q. You have not seen any actual tissues, correct?

A. Yes.

Q. Have you seen any epidemiological work with respect to the calidria-exposed populations?

A. No.

Q. Have you seen any epidemiological work with respect to mixed exposures of calidria and other asbestos types?

A. Apart from these, the Weiss comments on the Conwed plant, I haven't seen any data from any other situation where exposure has been to calidria chrysotile plus any other asbestos fibers.

(A recess was taken.)

Q. Dr. Gibbs, is it your opinion that calidria chrysotile can contribute to peritoneal mesothelioma?

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1 Gibbs

2 A. No, it's not my opinion that it can
3 contribute.

4 Q. So it is not your opinion that that
5 contributes to peritoneal mesothelioma?

6 A. Yes.

7 Q. With respect to the following
8 questions I am using the term not caused but
9 contribute and I don't know if you see a
10 distinction there.

11 A. Yes.

12 MR. WILL: Well, I'd like you to
13 define what you mean by "contribute."

14 MR. BROWNSON: What I mean by
15 contribute is a contributing cause, not sole
16 cause, but contributor to these condition that
17 we're going to run through here.

18 Q. Do you understand?

19 A. Yes.

20 Q. With respect to peritoneal
21 mesothelioma, are you of the belief that
22 chrysotile fiber in general does not contribute
23 to peritoneal mesothelioma?

24 A. That's correct.

25 Q. So you're not making any specific

Gibbs

distinction between calidria or other types of chrysotile; is that correct?

A. No.

Q. With respect to pleural mesothelioma do you have an opinion as to whether calidria chrysotile would contribute to mesothelioma?

A. It doesn't contribute.

Q. Do you make that distinction with calidria chrysotile and any other type of chrysotile?

A. No.

Q. So to put it another way it's your opinion that no type of chrysotile contributes to pleural mesothelioma?

A. No, mainly chrysotile in the absence of tremolite, t-r-e-m-o-l-i-t-e.

Q. So you're of the view that to the extent chrysotile asbestos contributes to mesothelioma it comes from tremolite contamination?

A. Yes.

Q. What type of tremolite?

A. Asbestos foam tremolite.

Q. Fibrous tremolite?

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Gibbs

A. Yes.

Q. Of any particular size or morphology?

A. The longer and thinner the more likely it is to cause mesothelioma.

Q. Are you of the view then that tremolite, fibrous tremolite, can cause pleural mesothelioma?

A. Yes.

Q. Pleural peritoneal mesothelioma?

A. I think it possibly can.

Q. Let's just stop here for a moment. With respect to pleural mesothelioma, upon what data do you base your view that fibrous tremolite can cause pleural mesothelioma?

A. There are areas in some parts of the world, such as in Turkey and Corsica, where exposure to fibrous tremolite has occurred environmentally in which there are high rates of mesothelioma.

Q. And you have seen the published data on that, I take it. Have you visited those areas?

A. No, I haven't been to them personally.

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Gibbs

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2 Q. Have you examined lungs of
3 individuals exposed to the fibrous tremolite in
4 those villages?

5 A. I've seen some from Turkey but I
6 haven't seen the Corsica.

7 Q. Are these the people that have
8 whitewashed their houses with the tremolite or
9 some other exposure?

10 A. As I understand it there are two main
11 areas in Turkey, one of which is set among three
12 villages, one is Carain, C-a-r-a-i-n, which is an
13 area exposure -- which is not an asbestos
14 exposure -- and then there's another area which
15 is further west in Turkey where high rates of
16 mesothelioma have occurred. I have seen cases
17 from that area.

18 Q. That's what I was trying to
19 understand. In terms of your opinions on
20 tremolite in Turkey with the erionite exposures
21 we are talking about actual tremolite?

22 A. Yes.

23 Q. You have seen some of the lung
24 tissues of people; is that correct?

25 A. Seen pleural biopsies.

MANHATTAN REPORTING CORP.

UCAREF00007258

1 Gibbs

2 Q. Do you know how many?

3 A. Somewhere about 40 or 50.

4 Q. Where did those come from?

5 A. They were referred from the pathology
6 department in Eskaezir.

7 THE WITNESS: I think it's
8 E-s-k-a-e-z-i-r, I don't guarantee the accuracy
9 of that spelling.

10 Q. When was this generally?

11 A. Two years back or sometime.

12 Q. Have you published anything
13 concerning that?

14 A. No, we're hoping to have a site visit
15 that we have been trying to tee up a visit for
16 about two years and it's a problem of timing and
17 so forth because professor Pooley is involved in
18 this as well.

19 Q. So you're working with professor
20 Pooley, correct?

21 A. Yes.

22 Q. Who else?

23 A. Lady pathologist, Professor Ozdemere
24 (phonetic), and she has some associates that have
25 also been involved, I can't recall the names.

MANHATTAN REPORTING CORP.

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Gibbs

Q. In terms of your colleagues who you normally work with this is a project of yours and professor Pooley?

A. Yes.

Q. It sounds like what's happened is samples of pleural -- are these biopsies or autopsies?

A. Biopsies.

Q. Samples of oral biopsies have been sent for your examination?

A. Yes.

Q. Were they tissue or cytology fluid?

A. No, these were tissues.

Q. Have you confirmed any of the mesothelioma diagnoses based on biopsy samples?

A. Yes.

Q. How many were you able to confirm?

A. I can't remember, but a substantial portion of them.

Q. So out of the 40 or 50 tissues would we say what, 30 maybe?

A. Over half.

Q. Have you sent any of that pleural tissue over to professor Pooley to do mineral

Gibbs

1
2 analysis?

3 A. Yes.

4 Q. Has he completed that?

5 A. I don't think he's completed that but
6 a substantial number of them.

7 Q. What has he found in terms of his
8 analysis in those tissues?

9 A. Substantial amount of fibrous
10 tremolite.

11 Q. Do you have any information at this
12 point as to the size distribution of that fibrous
13 tremolite that he's found in the tissues?

14 A. I can't give you an accurate figure
15 but high ratio of the tremolite in that.

16 Q. In addition to the fibrous tremolite
17 he's found has he found any other inorganic
18 particulis fibrous tissues?

19 A. There may be some other particles but
20 the dominant finding was tremolite.

21 Q. In terms of the dominant it was
22 tremolite?

23 A. Yes.

24 Q. Do you have any understanding of the
25 amount of tremolite professor Pooley has found in

Gibbs

those tissues?

A. I can't give you any sort of numbers per gram of dry tissue but quite high quantities.

Q. Well, I'll try anyway.

A. Can I put it a different way?

Q. Sure.

A. If you were to take the lung tissue because we're talking about pleural -- this is pleural?

Q. Right.

A. The levels would be higher than we would see in background controls for amphibole and they would certainly be in the range that we have seen associated with mesothelioma.

Q. Do you have any or does professor Pooley have any sort of reference you use in terms of if you find so many fibers in a gram of pleural tissue as to how that translates to lung tissue or do you have to look at lung tissue to make it count?

A. You would have to look at lung tissue.

Q. Do you know if any available lung tissue was ongoing in these cases?

Gibbs

A. I don't know if there was. One of the purposes of the visits was to ascertain if there was lung tissue at that point.

Q. So the tissue assays by professor Pooley was looking at lung tissue and finding fairly high amounts of tremolite fiber?

A. Yes.

Q. Although you said you weren't able to quantify it was a range of one million fibers of dry gram of tissue?

A. Yes.

Q. Would be it be over 100 million?

A. I don't think it would be over.

Q. I'm trying to get some sense of what we're talking about. Would it be perhaps in the 50 to 100 million range, something like that?

A. Well, in excess of one but no precise figure because general terms -- because we haven't put any publication or report on it.

Q. In your experience when Professor Pooley has done lung tissue fiber burden analysis I take it that he has found and you have adopted a certain level of background amphibole fiber tissues; would that be fair to say?

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UCAREF00007263

Gibbs

A. Yes.

Q. With respect to fibrous tremolite, what in your experience do you consider to be background levels?

A. With Professor Pooley's analysis these are our own laboratory figures they're not from other places because they do differ between laboratories, but I would accept up to one million per dry gram of tremolite as being consistent with background.

Q. That would be one million fibers per dried gram of lung tissue?

A. That's all fiber sizes.

Q. That's not only greater than five microns?

A. All numbers I have given you have been all sizes.

Q. Is this generally true also of the tissues you've examined or Professor Pooley has examined from the United States?

A. When I say that background figure that would be for the U.S. because we generally find lower levels of tremolite in U.K. lung tissues than we do in U.S. lung tissues.

MANHATTAN REPORTING CORP.

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1 Gibbs

2 Q. So in any event we started this
3 discussion by analyzing what data you had
4 available and your conclusion that fibrous
5 tremolite can cause mesothelioma and you've
6 described to us this Turkish experience.

7 Is there other data that you have
8 that leads you to believe that fibrous tremolite
9 causes pleural mesothelioma?

10 A. There's not data that I have, there
11 is other data that tremolite have occurred, that
12 includes Corsica and some parts of Greece.

13 Q. When you conclude that there are some
14 pleural mesotheliomas which result from
15 chrysotile exposures but that it's cause by
16 tremolite in the chrysotile, do you base that
17 upon the fact that you know that chrysotile
18 causes mesothelioma already?

19 A. Well, you can certainly find
20 situations whereby you can die without chrysotile
21 and mesothelioma provided there is the tremolite
22 exposure. Where there's flaky material and no
23 mesothelioma but in the asbestos form shape there
24 are areas where there have been as far as we know
25 and with all the best evidence there's just

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Gibbs

tremolite exposure mesothelioma has occurred.

If we then take the situation with the basis, if you like, for people's opinions that chrysotile causes mesothelioma has basically come from Quebec chrysotile miners and millers and, in fact, in these they've been a relatively small number of mesothelioma that occurred in those workers, but it is now known that chrysotile is contaminated by tremolite and if you do the lung burden analyses it's the tremolite that dominates the mesothelioma findings in the lot.

Q. Are you referring to corporate McDonald series?

A. And also the Canadian miners and millers.

Q. With respect to the mesothelioma that McDonald has reported among Canadian miners and millers, are you familiar with what the lung content of the tremolite are in those cases?

A. Not in each of those cases but some but done by Churg.

Q. Are you familiar with the cases of mesothelioma where there are tremolite lung

Gibbs

burdens of a million fibers per dry gram of lung tissue or less and chrysotile lung burdens in excess of one million fibers?

A. I've seen one or two cases by Art Langer, I think, that's been in that ballpark.

Q. And in that case is it your view that the tremolite did not cause the pleural mesothelioma in a case like that?

A. I don't know because they are extremely rare cases. I think I've only seen one or two of that sort of case or report but the what you can't find is a group of workers in a particular location where you can do a group study and I don't think you can tell a lot from one individual case.

Q. What about the series Langer published with the six cases of lung cancer in mesothelioma?

A. I think there were mixtures of lung cancer as well.

Q. Right.

A. I would not draw any conclusions of that study, I think they're too preliminary.

Q. When you say you cannot find this

Gibbs

situation where low levels of chrysotile and low levels of tremolite were actually analyzed for fiber burden?

A. Yes, I think what you have to do is you have to take the epidemiology at the same time that if you've got it to look at lung burden, but it wasn't until the lung burden was examined in those cases that it dropped that it wasn't chrysotile so you then want to look at other situations where you can find an exposure to chrysotile per se without tremolite and there have been some factories in the U.K. that have been studied in that way in which no mesothelioma have occurred.

Q. Were those published data?

A. Yes.

Q. Which ones, Rochdale?

A. No, Rochdale was a mixture of crocidolite and tremolite, but there is a mixture in the U.K. studied by Molly Newhouse in a series of papers, which one of the problems with all studies is that some had an intermittent or low -- some amphibole has been used in the plant. In that friction products plant in excess

Gibbs

of 90 percent of usage was chrysotile. There were, I understand, some periods whereby crocidolite was used and when they looked at the precise number of mesothelioma it was 9, 10, 11, that sort of number.

Those occurred in the group that had been exposed to crocidolite and it didn't occur in those only being exposed to chrysotile and similarly there's a plant actually near my hospital which was an asbestos cement plant closed some years back but had been operating since the 1930s and maybe even earlier than that. That was studied epidemiologically by a chap called -- Thomas and Elwood were two of the authors. They only used chrysotile apart from a few years in the early 1930s and I know to the present time that there were four mesotheliomas in the plant. All of those four mesotheliomas occurred in the gentleman who had worked there in the early '30s and we have lung burden that shows crocidolite in the lung.

Q. Do you draw some conclusion from the fact that -- do you find significance in that study because there are four crocidolite-related

Gibbs

mesotheliomas?

A. The thing is all the workers after that period of time we don't have any mesotheliomas in them. There's a sufficiently long latency period in chrysotile-causing mesothelioma for it to come through by then and because my hospital would drain, if you like, drain that catchment area. Those workers, if they had a mesothelioma would have come through my laboratory. It would be extremely unlikely that they wouldn't have.

Q. Do you know what the exposures were to chrysotile?

A. We don't know what the exact fiber levels were but we do know that people in the plant in the 50s and 60s they talked about a snowfall and they used to have snowball fights and snowballs were cohorts for lung cancer and no asbestos cases.

Q. How many workers are we talking about?

A. I think it's about a thousand, 1200.

Q. So you draw some significance to the fact that approximately something less than a

1 Gibbs

2 dozen mesotheliomas in Molly Newhouse's study are
3 crocidolite in your view?

4 MR. GERSON: I object to the form of
5 the question.

6 Q. But you draw some significance from
7 the fact that Dr. Langer was seeing somewhere in
8 the order of dozen mesotheliomas with high levels
9 of chrysotile in the lung but not amphiboles?

10 A. Dr. Newhouse's cases are from the
11 same plant so they have good ideas of what
12 exposures take place. I think those are more
13 powerful studies than cases referred on random
14 cases.

15 Q. With regards to the Conwed plant,
16 were the '89 cases epidemiologically of interest?

17 A. Yes, because we're talking about a
18 mixed exposure there we would be interest
19 obviously in what was in the lung tissues.

20 Q. And you don't know that?

21 A. No.

22 Q. With respect to the epidemiological
23 studies linking fibrous tremolite to mesothelioma
24 and we're talking about some Greek and Turkish
25 areas?

Gibbs

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A. Corsic .

Q. And we're talking about the Rochdale plant in England?

A. I'm not talking about the Rochdale plant.

Q. Molly Newhouse, workers and miners and millers in Quebec?

A. And gas mask workers.

Q. Do you draw some significance with respect to fibrous tremolite from the gas mask workers?

A. No, but I do.

Q. Crocidolite?

A. Chrysotile versus crocidolite.

Q. How many mesotheliomas arose out of the crocidolite-exposed gas mask workers and you've seen studies both in Britain and the United States?

MR. WILL: Canada.

A. Canada and McDonald. If you're talking about the U.K., gas mask workers.

Q. Start with that.

A. In Nottingham there were several gas mask assembly plants but there were round about

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Gibbs

60 in Nottingham.

Q. 60 mesotheliomas in Nottingham and do you know what the average lung fiber burden is of crocidolite in those workers?

A. Round about 20 million.

Q. How many crocidolite-exposed gas mask workers in United States and Canada of mesothelioma?

A. I can't count the numbers that came out of the Canadian plant.

Q. Do you know what the number of fiber lung burden is?

A. No.

Q. In terms of people who have been exposed only to fibrous tremolite, how many lung tissue fiber burdens are you aware of that you have seen?

A. We're talking about the fibrous tremolite in the absence of chrysotile?

Q. Right.

MR. GERSON: You're asking that he's seen himself?

MR. BROWNSON: Right.

A. What I have seen personally or in the

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Gibbs

literature?

Q. Well, let's start with personally.

A. I think we've just got a couple of lung burden studies on fibrous tremolite.

Q. What are the range of levels we see in those couples?

A. I can't remember. Well in excess of a million.

Q. In terms of literature how many mesotheliomas in people exposed only to fibrous tremolite have you seen?

A. Well, there's a bit of data in Belgium from Turkish immigrants but I think some of those were confounded because they had asbestos exposures in Belgium but some cases of mesothelioma which they regarded as tremolite induced with high tremolite lung burdens being equivalent to the excess of one million.

Q. Do you concur in that opinion?

A. I think there's quite likely their reasoning for it that they're right.

Q. How many mesotheliomas are we talking about there?

A. A few.

Gibbs

Q. With respect to your conclusion that chrysotile in the absence of tremolite cannot cause or contribute to pleural mesothelioma you cite the fact that you would have expected to see some mesothelioma out of the cement products plant near your hospital but you have not, correct?

A. Yes.

Q. You cite the series of the Canadian miners and millers which have been well followed and published by McDonald and others, correct?

A. Yes.

Q. Are there any other groups exposed only to chrysotile upon which you base that opinion?

A. We have the friction products plant that we've already --

Q. Is that Molly Newhouse?

A. Yes, and the gas mask studies of Nottingham where one group of workers were assembling gas masks with chrysotile filters, the other group was assembling gas masks in a similar way but crocidolite and mesothelioma occurred in the crocidolite, not in the chrysotile. Other

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1 Gibbs

2 studies in South Africa of mines where comparing
3 crocidolite, amosite and chrysotile. As far as I
4 am aware no mesotheliomas have occurred in the
5 chrysotile.

6 Q. You are aware, are you not, in terms
7 of mining and milling generally we tend to see
8 less lung cancer in mesothelioma then you do in
9 manufacturing operations?

10 A. I think you need to be a bit more
11 specific there. Which sort of --

12 Q. Well, let's talk about
13 chrysotile-exposed workers.

14 A. Are you --

15 MR. GERSON: Can you repeat your
16 question?

17 MR. BROWNSON: Well, I'm jumping
18 ahead because I'm talking about lung cancer.

19 Q. Let's back up and talk about the
20 mesothelioma.

21 A. Right, okay.

22 MR. GERSON: Are you withdrawing your
23 question?

24 MR. BROWNSON: Yes, I'm withdrawing
25 that question.

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Gibbs

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2 Q. It has been reported by many, and you
3 are aware of that that, mixed exposures of
4 chrysotile and amphiboles can cause mesothelioma
5 and you're familiar with, for instance, the
6 Selikoff Group and that sort of thing, right?

7 A. Mixed exposures, right.

8 Q. Conwed could be an example of that,
9 right?

10 A. Yes.

11 Q. Is it your view that such mixed
12 exposures of chrysotile and amphibole asbestos
13 that chrysotile plays no role whatsoever in the
14 ideology of pleural mesothelioma?

15 A. That is my view.

16 Q. Have you ever recommended that the
17 British standards for exposure to the asbestos
18 apply only to crocidolite and not to chrysotile?

19 A. I was never involved in setting the
20 standards.

21 Q. You're aware that in Britain
22 chrysotile is regulated as to crocidolite but
23 regulated at different levels?

24 A. Yes.

25 Q. Is that occupational exposures? I

Gibbs

think that or a four-hour time average; is that correct?

A. I think that's correct.

Q. Based on what you've described to us by mesothelioma you've made no recommendations that this be changed in any way?

A. No.

Q. Do you know if the Medical Research Center with which you were affiliated when it was in operation has made any recommendations in that regard?

A. I'm not aware that they did.

Q. Let's turn our attention to lung cancer. Do you have an opinion as to whether calidria chrysotile can contribute to lung cancer?

A. I think it's highly unlikely that it does.

Q. Again, does that opinion differ with respect to chrysotile generally or is it the same with respect to chrysotile generally?

A. It's the same with chrysotile generally.

Q. In that regard are you of the view

Gibbs

that it is possible that chrysotile exposure can contribute to the lung cancer if you have, for example, pulmonary fibrosis in a very high exposure of chrysotile?

A. If you get sufficient chrysotile exposure to produce lung fibrosis but it means a very high prolonged exposure then.

Q. How about in your view, does the cigarette smoke factor in that opinion; in other words, would you say that this would be limited to smokers or heavy smokers or does that not matter?

A. Well, it doesn't matter a lot but if they don't smoke the risk of getting lung cancer is increased, is slightly increased, and, in fact, all the epidemiological studies found it very difficult to find any number of lung cancers in non-smoking asbestos workers.

Q. Would you agree, as it sounds like you would, as a general proposition that smoking is the principal problem with respect to development of lung cancer among occupationally-exposed asbestos workers?

A. Yes.

Gibbs

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Q. A number of studies have actually tried to show that or tried to factor in smoking?

A. Yes.

Q. Would you agree with me that among occupationally-exposed asbestos workers by and large you have a large proportion of smokers among those cohorts?

A. Yes.

Q. Have you seen data among the Conwed workers that were smokers?

A. I think about 18 percent.

Q. So at least based upon the evidence that you've seen the Conwed population was a pretty heavy smoking population?

A. Yes.

Q. As far as you're concerned that would be a very heavy factor in any excess lung cancer we see in that group?

A. Yes.

Q. Are you aware of the fact that Conwed sold the Cloquet Sealing Plant to the United States Gypsum Company in 1955?

A. No.

Q. SGEF purchased the plant, attempted

1 Gibbs

2 injection, published where animals were given
3 chrysotile and researchers had broken out the
4 levels of tremolite in those animals?

5 A. I don't remember seeing anything
6 specifically.

7 Q. Do you recall if any of Wagner's
8 studies would show that?

9 A. There may be one or two.

10 Q. Of the published studies or
11 unpublished?

12 A. I think one or two published studies
13 that may have some data in that.

14 Q. Do you know in that 1974 paper that
15 we were looking at that Dr. Wagner did -- I
16 realize that's 22 years ago and you were a young
17 researcher at the time -- and do you know if any
18 tremolite was found or looked for in the
19 chrysotile-exposed rats?

20 A. I don't think they look at it at that
21 point in time.

22 Q. You have said that in your experience
23 the background level of tremolite in human lungs
24 is about up to one million dry fibers gram of
25 lung tissue?

Gibbs

populations are generally seen in manufacturing operations as opposed to mining and milling?

MR. WILL: Attributed by whom? What are we talking about?

MR. BROWNSON: In published literature.

Let me put it another way because it's a hard -- let me withdraw that question.

Q. Would you agree with me that in the published literature the elevative levels of lung cancer among chrysotile-exposed workers have generally been seen, for example, in textile and manufacturing operations as opposed to mining and milling?

A. The rate of lung cancer has been higher in textile operations than in mining and milling, yes.

Q. For example, we see higher examples of lung cancer in mining than in South Carolina and the miners and millers in Canada?

A. Yes.

Q. In your view does the physical manipulation of fiber -- we're talking about chrysotile fiber here -- play any role in these

Gibbs

increased levels of lung cancer?

A. Are you talking about Quebec and South Carolina?

Q. Right.

A. I think the evidence is against that.

Q. Do you believe that the increased levels of lung cancer in South Carolina arise because they use some crocidolite in yarn?

A. I think there are a number of unanswered questions in the South Carolina plant in terms of risk and there is a possibility that it may not be related to asbestos.

Q. You believe it's related to the use of mineral oil?

A. I think that's a possibility.

Q. Do you know what the median length of the chrysotile found in the lungs of South Carolina textile workers is?

MR. WILL: You're talking about Dement's particular study?

MR. BROWNSON: Right.

A. I can't remember the precise figure but I remember when there was a study done by Sebastian McDonald comparing lung contents from

Gibbs

millers from the South Carolina textile plant workers and there was very little difference between the two groups.

Q. In terms of size distribution of fiber?

A. Yes.

Q. So whatever the median length was it was variable to that seen in the miners and millers?

A. The physical size distribution, as far as I understood that paper, didn't indicate that they could explain the difference in rate of lung cancer.

Q. Put another way, the difference of the rate in lung cancer could not be explained by the size distribution?

A. That's correct.

Q. How about by morphology?

A. What do you mean by "morphology"?

Q. How about by physical characteristics other than size?

A. Well, the -- I mean -- the length and width are -- I mean, apart from -- I'm not quite -- I don't think I follow you.

1 Gibbs

2 Q. Let me ask you this: When chrysotile
3 is used in a textile operation and it's spun or
4 woven or whatever they're doing, would you agree
5 with me that it has the effect of what they call
6 opening up the fiber?

7 A. Yes.

8 Q. That's all I was driving at with my
9 prior question. The physical manipulation of the
10 fiber in that sort of operation changes it in the
11 sense that it breaks it down to fibrals, it opens
12 it up, that sort of thing. Would you agree with
13 me on that?

14 A. Yes.

15 Q. Let's move on to pulmonary
16 asbestosis. Do you have an opinion as to whether
17 calidria asbestos can cause pulmonary or can
18 contribute to pulmonary asbestosis?

19 A. I think it's conceivable that it can
20 but I think that it would be accepted in the
21 situations where there was very prolonged high
22 level exposure. It is unlikely to have any
23 effect.

24 Q. In that view do you differentiate
25 between other types of chrysotile?

1 Gibbs

2 A. I think generally you would. Looking
3 at fibrosis in the lung and amphibole is it much
4 more potent than chrysotile and going back to
5 miners and millers in Canada there was a
6 relatively smaller number of asbestosis and they
7 were exposed to very high amounts over a long
8 period of time and in those, of course, you've
9 the tremolite in the lung that's dominating the
10 mineralogical finding as well.

11 Q. Are you saying that's true in all the
12 Canadian miners and millers or some of them?

13 A. I'm saying what we don't have is a
14 precise match of the lung burden studies with the
15 McDonald group of high exposures, but certainly
16 based on the occupational hygiene data the ones
17 who got asbestosis were in the very high exposed
18 group.

19 Q. Whether they had higher lung burdens
20 of tremolite was something that has not been
21 correlated; would you agree with me on that?

22 A. Based on what we know on the other
23 lung burden studies of other cases it is probably
24 that they would have long-term.

25 Q. By "other cases" you mean the

Gibbs

mesothelioma cases?

A. The other cases written up. He has done some mesothelioma cases and others which were not mesothelioma.

Q. From Canadian miners?

A. Yes.

Q. You're aware of the fact that there were differing levels of fibrous tremolite in different Canadian mines?

A. Yes.

Q. Do you know which is the largest historical -- which Canadian mine has produced the most fiber?

A. You're talking about tremolite now?

Q. No, I'm talking about chrysotile production.

A. No, I can't recall the production rates.

Q. Are you familiar with the Jeffrey Mine?

A. Yes.

Q. Do you know what level of tremolite there is in asbestos from the Jeffrey Mine?

A. I can't remember.

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Gibbs

Q. Are you aware of the fact that there's very little tremolite in the Jeffrey Mine?

A. I can't remember whether Jeffrey was near the Township of Asbestos or the Township of Thetford but I know the township of Thetford had more tremolite than the mines in Asbestos.

Q. As a general proposition the Thetford mines had more tremolite?

A. Yes.

Q. But these Kansas miners and millers studied by McDonald and others caused all the other East Brownford and Jeffrey and all these places?

A. Yes.

Q. I asked the question which started this question, I'm not sure of the answer; whether your view contributes asbestosis to calidria or the same with respect to all chrysotile?

A. I think if when chrysotile is related to asbestos it's only when it's in very high exposures. With that there is a lot of tremolite exposure. The other aspects, if one looks at

Gibbs

asbestos in general, experimentally lung fibers will produce more fibrous than short fibrous. In general terms comparing one amosite with another and not asbestos numbers with erionite, if you take long and subject it and make it short you change the amount of fibrosis that occurs.

Q. Are we talking about animal experiments here?

A. Yes. I think the calidria asbestos has short fibers compared with conventional Canadian chrysotile it would be less likely to require even higher exposures.

Q. Do you know how the size distribution of chrysotile compared with Canadian chrysotile?

A. My understanding is it's shorter compared with Canadian chrysotile.

Q. Do you know that for a fact?

A. Well --

MR. GERSON: Object to the form.

MR. WILL: He hasn't done fiber measurements in his lab, if that's what you're asking him.

Q. Do you know specifically how to compare?

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Gibbs

A. My impression from reading the literature is that the Canadian chrysotile is about twice as long on average with the calidria.

Q. Do you know what the percentage of calidria fibers greater than five microns in length is?

A. That seems to have varied with particular products so it's varied from nought to near 20 percent.

Q. Or have you ever seen it?

A. I think there was one by Miller.

Q. Is that in your notes somewhere?

A. Yes.

Q. Okay.

A. Miller 1996, MG-130 as nought percent greater than five. And then --

Q. What is --

A. Then RG-144 is one percent greater than five.

Q. Do you know what SG-10 is?

A. I think particular calidria chrysotile products that come out of the factory.

Q. Incidentally, you're familiar with what is known as UICC standard samples that are

1 Gibbs

2 used in animal research?

3 A. In general terms, yes.

4 Q. Are you familiar with the Canadian
5 chrysotile samples which are known as UICC A and
6 UICC B?

7 A. I think they used different lines and
8 reflected.

9 Q. Do you know what the size
10 distribution of the samples are?

11 A. I think it varied from one study to
12 another but I can't remember precisely what they
13 were.

14 Q. Do you know what if any tremolite is
15 in UICC A?

16 A. I can't remember percentage.

17 Q. How about UICC B?

18 A. I can't remember.

19 Q. But there is no tremolite in calidria
20 asbestos?

21 A. All data I've seen so far there is no
22 indication of any tremolite there.

23 Q. That data would consist of samples
24 analyzed by Pooley?

25 A. There was samples analyzed by Pooley

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1 Gibbs

2 and other people as well.

3 Q. Mumpton?

4 A. Yes, and somebody else, I think.

5 MR. GERSON: Just for the record,
6 Dr. Gibbs was not produced as a mineralology
7 expert.

8 MR. BROWNSON: I know that, I'm
9 trying to steer away from mineralology but...

10 A. There is a study by Wicks who didn't
11 detect any tremolite.

12 Q. Would you agree with me that when
13 Dr. Pooley had done one analysis of chrysotile
14 infected workers it was higher than that of the
15 chrysotile fiber itself?

16 A. Yes.

17 Q. I don't want to get into a long
18 analysis, but is it fair to say that that occurs
19 as a general matter because tremolite fiber tends
20 to accumulate and be retained in the lung
21 tissues?

22 A. That's correct.

23 Q. So that the fact that Professor --
24 let's take a hypothetical example. In a
25 hypothetical example Professor Pooley found a

Gibbs

million tremolite fibers per dry gram of lung tissue and half a million chrysotile fibers. We cannot infer from that that the particular exposure was twice as much as chrysotile. What that means is chrysotile tremolite has accumulated, right?

A. Yes.

Q. This is a marked effect of small amounts of chrysotile, small amounts of tremolite, that tends to accumulate in the lung tissue?

A. Yes.

Q. If we wanted to determine whether calidria contained any tremolite would one way to go about it be to look at the lung tissue in the calidria-exposed workers to see if any tremolite was there?

A. That would be the best way.

Q. Because that way if there's a very small amount of tremolite in calidria and tremolite here and there in calidria it would tend to accumulate and effect cumulatively?

A. Provided it showed the amount of tremolite in the lung was above background and

1 Gibbs

2 was from someplace else; in other words, those
3 workers hadn't been working somewhere else in
4 addition but if those workers were confined to
5 the work experience to the calidria chrysotile
6 and found raised levels of chrysotile that would
7 be familiar.

8 Q. Do you know if that's ever been seen?

9 A. To my knowledge, no.

10 Q. Do you think that would be a good
11 thing to look for?

12 A. Yes.

13 Q. Let me ask you this: Earlier on you
14 had mentioned lymph nodes. Does the same effect
15 occur in lymph nodes the way you described
16 tremolite accumulates?

17 A. I don't have enough data to know
18 that.

19 Q. Does the same effect occur in other
20 tumors; in other words, esophagal tumors?

21 MR. GERSON: What do you mean "the
22 same effect"?

23 Q. Where the tremolite tends to
24 accumulate over time?

25 A. I'm sorry, I don't believe an

Gibbs

esophageal was proven to be asbestos-related at that point in time.

Q. That wasn't the question. I was asking whether they are or not. My question is do you see this effect that tremolite tends to accumulate over time?

A. We have no data on that.

Q. Let me ask you this question: With respect to pulmonary fibrosis or -- I'm sorry, with respect to pleural fibrosis, do you believe that calidria can contribute to this condition?

A. I think it's extremely unlikely.

Q. In that opinion do you make any distinction between chrysotile generally and calidria?

A. No.

Q. With respect to pleural thickening, do you believe that calidria asbestos can contribute to this condition?

A. No.

Q. Do you make a distinction between calidria and other types of chrysotile?

A. No.

Q. Upon what data do you base that

Gibbs

1
2 opinion?

3 A. I think the pleural disorders,
4 Clark's fibrosis or mesothelioma are
5 amphibole-related.

6 Q. With respect to pleural plaques, do
7 you believe calidria contributes to the
8 accumulation of pleural plaques?

9 A. No.

10 Q. That's the same as pleural
11 thickening?

12 A. All the Clark mesotheliomas I think
13 are amphibole-related.

14 Q. Is your view with respect to
15 pulmonary disorders being only caused by
16 amphibole asbestos?

17 MR. GERSON: Is that pulmonary or
18 pleural?

19 MR. BROWNSON: Did I misspeak there?

20 MR. WILL: You said pulmonary.

21 Q. Pleural. It is your opinion that
22 pleural plaques mesotheliomas are amphibole
23 asbestos, correct?

24 A. Yes.

25 Q. Is that view a consensus borne of any

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1 Gibbs

2 scientific regulatory bodies of which you are
3 aware of?

4 A. No, but I think of the groups of
5 scientists that have studied the relationships I
6 think there may be varying degrees of certainty
7 but I think more would say that it's more
8 amphibole-related than chrysotile.

9 Q. That's a different thing. Would you
10 agree that among scientists or many scientists
11 people tend to view the amphibole types of
12 asbestos as more potent, if you will, in causing
13 pleural disorders than chrysotile?

14 A. Yes.

15 Q. There are some people who take the
16 contrary view, that they're in the minority;
17 would that be fair to say?

18 A. Yes.

19 Q. So the majority view that amphibole
20 asbestos types are more potent in causing pleural
21 abnormalities than chrysotile?

22 A. Right.

23 Q. I thought I heard you say that
24 chrysotile plays no role in pleural
25 abnormalities?

Gibbs

A. Well, rarely if any.

Q. Would you agree with me that at least with respect to that view the consensus at least as embodied in regulation is to the contrary?

MR. WILL: I object to the form of the question in that it assumes that scientific consensus in fact especially embodied in political regulation. If you want to break the question down and ask him his view.

Q. Do you know what the position of the IRA is, the IRA, this is embodied?

A. No.

Q. United States Environmental Protection Agency?

A. They regard it as carcinogenic.

Q. Are you familiar with the International Program for Clinical Safety at the WHO?

A. I've heard a little bit about it but I wouldn't say I was familiar with it.

Q. Are you familiar with their position with respect to the carcinogenicity of chrysotile?

A. I think there's been a major debate

1 Gibbs

2 in that area which a number of people were
3 unhappy with the result of it.

4 Q. The result of chrysotile and
5 carcinogens and they were unhappy with that?

6 MR. WILL: Objection to whether they
7 regard it as a carcinogen. That group doesn't
8 have a right to say that it's a fact whether it
9 is or isn't.

10 MR. BROWNSON: Let me rephrase the
11 question.

12 Q. Would you agree with me that the
13 International Program for Clinical Safety at the
14 WHO will be adopting a position that chrysotile
15 is carcinogenic, a carcinogen, and that there are
16 some people that you think are unhappy with that
17 position?

18 A. That is what I understand but I
19 couldn't say that this is definitely what will
20 come out, I haven't been party to the discussion.

21 Q. Are you aware that there is a
22 position paper coming out soon in that regard?

23 (Mr. Goldman left the deposition
24 proceedings.)

25 A. Yes.

Gibbs

Q. Dr. Gibbs, in preparation for your deposition today I was looking through some literature and I'd like your comments on a number of things that I reviewed. I was looking, for example, at this chapter that Doll and Peto published in 1985 in a book published by Her Majesty's stationery office entitled "Asbestos: Effects on health of exposure to asbestos."

First of all, have you read that before?

A. I think it was a blue book originally, yes, I think I have.

Q. Let me hand you a copy of that because I wanted to ask you some things about it.

A. Thanks.

Q. I've handed to you a copy -- first of all, my question is have you ever read this?

A. Yes.

Q. You, of course, are familiar with Sir Richard Doll?

A. Yes.

Q. Have you done any work with Sir Richard Doll?

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Gibbs

A. No, but I've spoken to him on several occasions and met him at different meetings.

Q. I'm just curious, is he alive today?

A. Yes.

Q. Is he active in research?

A. Yes. Not much with asbestos though, I think other things.

Q. Have you ever done work with Julian Peto?

A. No, but it's possible that we might be collaborating on some research in the future.

Q. Is that in connection with the research on the rise of mesothelioma in Great Britain?

A. Yes.

Q. I got to thinking about when I got to reading this paper is when Sir Richard Doll published his series of, I guess you called it a series of papers and studies in 1955, about lung cancer and cigarette smoking and lung cancer in asbestos -- you're familiar with that literature, I take it?

A. Yes.

Q. Do you know whether the workers that

Gibbs

Sir Richard Doll reported on were
chrysotile-exposed workers or amphibole-exposed
workers?

A. Both because the dominant data that
he used was from the Rochdale textile plant.

Q. Are you familiar with the history of
asbestos usage at Rochdale over the years?

A. I have seen some figures and I know
they use some more chrysotile than crocidolite
but they did use crocidolite at times.

Q. Have you seen the data showing the
years in which the different fiber types were
used at Rochdale?

A. Probably have but I don't remember
the specifics of it.

Q. Would you agree with me that at least
as reported by Doll and Peto in this chapter in
1985 they describe chrysotile as a carcinogen
both with respect to lung cancer and pleural
mesothelioma?

A. Yes, but that was predominantly based
on the shares which they had thought and assumed
was a chrysotile exposure. It wasn't realized
that there was a substantial amount of

Gibbs

crocidolite exposure as well.

Q. First of all, just for the record, Sir Richard Doll is an epidemiologist, is he not?

A. Yes.

Q. Would it be fair to say that he is if not the father of modern epidemiology he's at least a leading figure in that field?

A. Yes.

Q. And the, I guess among his most notable achievements, was the publication of data showing an epidemiological link to cigarette smoking and lung cancer in the mid 1950s?

A. Yes.

Q. For some reason these pages are not numbered well but I'm at page 15 of this paper. And I'd like you to turn there, if you would. These are double-sided pages. 15 is not marked very well but 16 is.

A. I've got it.

Q. For some reason the even numbers come out better than the odds on this thing. Have you found the reference page?

A. Yes.

Q. In his report here under the heading

1 Gibbs

2 "Fibre type," they talk about the four types of
3 asbestos and the four types they talk about
4 serpentine, the chrysotile and three amphiboles;
5 crocidolite, amosite and anthophyllite.

6 Do you see that?

7 A. Yes, I've got it.

8 Q. They report here that all four types
9 produced pulmonary fibrosis, cancer of the lung
10 and peritoneal in animal experiments but apart
11 from showing such experiments have not been very
12 helpful.

13 Would you agree with these statements
14 that animal experiments have shown but not too
15 helpful?

16 A. That's perhaps too sweeping a
17 statement. I think perhaps animal experiments
18 are useful information but in context with human
19 epidemiological and pathological and human
20 studies of lungs, etc., so I wouldn't think it
21 reasonable to sort of play down and not use
22 animal experiments as the sole basis assessment,
23 but it's perhaps a little bit too dismissive.

24 Q. Then they talk about a study by
25 Walton in 1982. Do you see that reference?

Gibbs

A. Yes.

Q. Are you familiar with that paper?

A. I don't recall it.

Q. I don't either but the report states,
"animal studies point to chrysotile being at
least as damaging and possibly more so, than
crocidolite (or amosite) at equal respirable mass
exposure concentrations and much more damaging
for equal amounts retained in the lungs."

Have you ever read that statement
from Walton before?

A. Only when I read this monograph
before.

Q. I take it that you disagree with
that?

A. Yes -- I mean, I don't agree with
that position.

Q. One thing that interests me about
that is it says chrysotile is much more damaging
for equal amounts retained in the lung, and you
would agree as a general proposition you'd see
less chrysotile retained in the lung than
amphiboles?

A. Yes, the experiments were done in

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Gibbs

equal masses which means a number of fibers that the animals were exposed to were one fold greater than the amphibole.

Q. Exactly, because chrysotile fibers are smaller than amphibole fibers?

A. Yes.

Q. If you give quality masses of fibers you're given a lot of amphibole?

MR. WILL: Objection. If you find equal amounts in the lung you're given a lot for amphibole to find quality amounts in the lung.

Q. Chrysotile is more massive than amphibole?

A. Yes, basically the animal experiments were conducted on growth overload conditions, the ones they were doing at that time.

Q. If you get a lot of chrysotile than amphibole then you see the greater effects in animals?

A. Yes.

Q. Is that what he's saying?

A. Yes, I think so.

Q. Then at the very end of this section on fiber type Doll and Peto say this, it says

Gibbs

that "it may also be that pulmonary burdens have little relevance to the production of tumours in the bronchi." And I assume that what they're speaking of, pulmonary burdens, is asbestos fiber burdens in the lung tissue; is that correct?

A. I assume so but it's very vague.

Q. It is vague. Assuming they mean pulmonary asbestos fiber burdens is that a statement that you would agree with?

A. No -- well, I think the pulmonary fiber asbestos burden is extremely important. It is an asbestos-related lung cancer because I think you need the fibrosis to occur to get the lung cancer so I think high pulmonary lung burden to produce the fibrosis.

Q. Their next section is entitled epidemiological evidence. It's a fairly short section but at the bottom of page 15 and continuing on to page 16 they make this statement, "This provides no grounds for expecting a greater hazard from amphibole asbestos than from chrysotile." And if you go back ahead of that what they're talking about is this notion of the proportion of fibers of

1 Gibbs

2 different sizes varying with the operation,
3 whether it's mining, milling or manufacturing,
4 that sort of thing.

5 Do you see that?

6 A. Yeah, I think, again, it's a very
7 vague, ambiguous sort of description. What
8 they're basically saying is I think from
9 occupational studies they don't have any good
10 information on what exposures were on numbers,
11 types and fiber sizes.

12 Q. Exactly. Would it be fair to say
13 this is one of the problems we have in asbestos
14 epidemiology is that the occupational exposures,
15 by and large, heavy occupational exposure
16 occurred years ago and got the data to make good
17 comparisons between epidemiological cohorts?

18 A. Yes.

19 Q. Without getting into a long
20 discussion on this, you see from time to time
21 people make efforts to try and standardize this
22 industrial hygiene exposure data; would that be
23 fair to say?

24 A. They make efforts, yes.

25 Q. Is what Doll and Peto essentially are

1 Gibbs

2 saying here, is that it's really hard to do and
3 this whole industrial hygiene data it's hard to
4 standardize to the extent that you can actually
5 examine these cohorts side by side?

6 A. Based on occupational hygiene data,
7 yes.

8 Q. Have you seen industrial or
9 occupational hygiene data from Conwed plant, such
10 as it may be?

11 A. I have just seen one reference to it,
12 I think some samples taken early 1970s, 1971,
13 which were not very high.

14 Q. Well, you then have seen some of the
15 data that I'm aware of?

16 MR. WILL: He didn't see the '84 test
17 of the boiler room.

18 MR. BROWNSON: Okay, then he's seen
19 some of it.

20 Q. The next section is entitled Fibre
21 type, the second Fibre type, it's under the
22 heading Epidemiological evidence. It reads, "In
23 contrast to the evidence on fibre size, human
24 evidence has been extremely important in
25 generating the idea that the amphiboles are more

Gibbs

carcinogenic than chrysotile, particularly with respect to the production of mesotheliomas. The evidence is not, however, as clear as one would like."

Do you see that?

A. Yes.

Q. Would you agree with that statement?

A. I think in 1985 that was probably a reasonable statement but I think since then there has been more information has come to light and that one can firm up on that statement.

Q. When you say "more information," are you talking about epidemiological information?

A. For fiber burdens studies and so forth.

Q. With respect to the epidemiological information, do we again have this problem of trying to fully understand the industrial hygiene data of these early exposures?

A. Yes, but I think at least in some situations it has been clarified to some extent by fiber burden data of the lung where you can then get a better idea of exposures.

Q. Do you know when Conwed's

Gibbs

compensation claims first began to be presented?

A. No.

Q. If I represented to you that the first claims -- actually the first was presented in '85 but began to be presented in about '86, would you agree with me that there remained a difference of opinion in the field of in the scientific community as to the carcinogenicity of chrysotile?

A. Yes.

Q. In other words, put another way, at that time if you wanted to a person could find a scientist saying that chrysotile causes lung cancer, pleural mesothelioma and I suppose also peritoneal mesothelioma and you could find scientists saying no, none of those things are true?

A. Yes.

Q. What you're telling us now is over time since -- over the last ten years the consensus has been swinging at least with peritoneal mesothelioma that chrysotile is not a cause of that, correct?

A. Yes.

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Gibbs

Q. It's also been swinging with respect to pleural mesothelioma?

A. Yes.

Q. And lung cancer?

A. I think there's no controversy over lung cancer but I think people haven't generally paid enough attention to the difference in fiber types in lung cancer.

Q. Would you agree with me that one of the problems that exists today in the scientific arena is that whether he hasn't paid enough attention to it or looking clearly -- or looking at the data clearly there remains a problem with a proper analysis of the role of chrysotile in causing lung cancer?

A. Yes, I think what is consistent with one or two exceptions, what comes consistently through is if you compare as best you can one factory situation with another factory situation where the processes were thought to be similar and the likely exposures were thought to be similar, that amphiboles show a much greater risk, increased risk, of causing lung cancer than the groups exposed to chrysotile and the example

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Gibbs

seem to have carried some weight with American regulators in the field of asbestos; would you agree with me on that?

A. I believe so.

Q. For example, are you aware of the fact that Dr. Nicholson was the primary author of the Environmental Health Agency's update with respect to asbestos in 1986?

A. I believe so.

Q. That is a document which forms the basis of current, actually current today, EPA regulations with respect to asbestos health effects, is it not?

A. As far as I know.

Q. In that document the authors, principally Nicholson, make the statement that there is no threshold of exposure to chrysotile which you cannot contract mesothelioma?

A. Well, I haven't seen the statement recently but I have no reason to disbelieve that statement.

Q. You're familiar with that position?

A. Yes.

Q. That position, for better or worse,

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1 Gibbs

2 has been adopted by the American EPA, has it not?

3 A. Yes.

4 Q. And it still remains in force today?

5 A. Right.

6 Q. So the Minnesota --

7 MR. WILL: What do you mean by
8 "remain"? There is a level of exposure which is
9 permitted today.

10 MR. BROWNSON: I understand, though
11 nevertheless it remains the position of the EPA
12 that no level of no associated risk, that's what
13 I was trying to say.

14 MR. GERSON: I object.

15 A. That's the EPA's position.

16 Q. Were you aware of the fact that when
17 the Minnesota Department of Health did its survey
18 of the Conwed workers and the Asbestos Health
19 Effects in 1987 which they published in 1988 that
20 they consulted with Mount Sinai in connection
21 with that survey, Mount Sinai researchers?

22 A. I didn't know that.

23 Q. Let me ask you a hypothetical
24 situation: Assuming that they did consult with
25 Mount Sinai researchers when they did their

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1 Gibbs

2 survey, would you agree that the views you have
3 expressed here today about chrysotile are
4 probably not the views that they got when they
5 asked, for example, chrysotile, mesothelioma and
6 fibrosis?

7 A. I don't know, I wasn't party to any
8 of the situations. I don't know if they asked
9 them to do the study or asked them about fiber
10 type issued, that's between them.

11 Q. Let me ask you a different question,
12 hypothetically, based upon what you know, if the
13 Minnesota Department of Health epidemiologists
14 would have consulted with Dr. Nicholson in 1987
15 and said, Dr. Nicholson, is chrysotile implicated
16 in the production of mesothelioma, would you
17 agree with me that the answer they would have
18 gotten would be yes?

19 A. That's been his position.

20 Q. Would you agree with me that he would
21 have answered yes, that chrysotile is implicated
22 in the production of lung cancer?

23 A. That would be his position.

24 Q. The same with pulmonary fibrosis, if
25 he has a position on that?

1 Gibbs

2 A. Yes. I assume so.

3 Q. As I understand your prior testimony,
4 these people from the Minnesota Department of
5 Health never consulted with your group,
6 Dr. Pooley, you, Dr. Wagner, in the association
7 with the --

8 A. They never consulted with me, whether
9 they consulted with Dr. Pooley or Wagner, I don't
10 know.

11 Q. As far as you know they didn't?

12 A. As far as I know they didn't.

13 Q. If you go to page 17, which was the
14 next page of Doll and Peto's paper that we've
15 been looking at, down on the first column, down
16 toward the bottom, last paragraph, they write,
17 "That chrysotile can cause pleural mesothelioma
18 would seem to be settled by the observation of at
19 least 14 cases in Quebec miners and millers."

20 Do you see that?

21 A. Sorry, where is that?

22 Q. It's the last paragraph on the bottom
23 of the first column.

24 A. Yes.

25 Q. You do not draw the same conclusion

1 Gibbs

2 from the cases of Quebec miners and millers; is
3 that fair to say?

4 A. They were not aware of the tremolite
5 problem and I think they would have -- would
6 probably change that statement, yeah.

7 Q. Let me clarify this because you might
8 have misspoke there. They were aware of the
9 tremolite problem because they refer to it, but
10 are you saying they didn't know what is known
11 today about the tremolite?

12 A. I don't think they realize what the
13 difference of retention is and how the rate of
14 mesothelioma compares with different chrysotile
15 mines and how the level contamination varies
16 between chrysotile mines.

17 Q. Though they did report that some
18 mines the level of the tremolite was zero. Do
19 you see that?

20 A. Sorry, I can't --

21 MR. GERSON: Where are you reading?

22 MR. BROWNSON: Footnote on the bottom
23 of page 17.

24 A. Well, I think that was looking at
25 other samples.

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Gibbs

Q. Right.

A. And sometimes a level of contamination at one percent is not detectable by the methods they have used so they're basing this on inadequate technology.

Q. Nevertheless it remains the fact that in the Quebec mines that varying ranges of mines have levels of zero to relatively high levels?

A. Yes.

Q. With respect to the British asbestos regulations, just, you know, as we've been talking about Dr. Nicholson's role in EPA, do you know essentially what has been behind the Great Britain input?

MR. GERSON: Before you answer I feel compelled to put on the record that Dr. Gibbs has not been produced in the regulatory experiment on American or British law or regulations, but to the extent you can answer these questions.

A. I don't know precisely but my estimate would be that the medical research council would have been involved with health and safety executive, would have been involved but drafted other bodies as well. I think that

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1 Gibbs

2 probably Julian Peto and Martin Gardner as
3 epidemiologists at South Hampton would have been
4 involved in the regulatory part.

5 Q. When you say "the medical research
6 council," was that the medical research council
7 with which you were affiliated?

8 A. There were a number of locations of
9 the medical research council and they have an
10 epidemiology unit in South Hampton. I would
11 think that a regulatory point of view they would
12 have mainly gone to the epidemiologists in South
13 Hampton. Gardner and whether people like Chris
14 Wagner were asked to meetings to discuss it, I
15 don't know.

16 Q. It's true, is it not, that there has
17 been and remains a good deal of controversy and
18 inprecision in the medical literature on the
19 question of the carcinogenicity of chrysotile?

20 A. Yes.

21 Q. Would you agree with me that to a
22 layperson reviewing the question, relying upon
23 scientific opinion and medical literature, even
24 to this day remains a little bit of a muddled
25 picture?

1 Gibbs

2 MR. WILL: Objection to what a
3 layperson knows, but go ahead.

4 A. I think there is still debate and
5 this paper you have drawn attention to verbalizes
6 what a simplistic view of the situation at the
7 time in 1985, saying that it was really the
8 finding of mesothelioma in Quebec miners and
9 millers definitively showed that chrysotile shows
10 mesothelioma where in fact it didn't definitively
11 show and I think the legislation on both sides of
12 the Atlantic was heavily swayed by the
13 mesothelioma in the Quebec miners and millers.

14 Q. Would you also agree with me that one
15 of the reasons it probably was swayed was that
16 the authors of the paper, Doll and Peto, who
17 people would assume are leading epidemiologists
18 and their views carry some weight?

19 A. Yes, but they didn't have the full
20 information at that time.

21 Q. Are you aware of anything written by
22 Doll and Peto about the carcinogenicity of
23 chrysotile since 1985 that would contradict or
24 modify those views?

25 A. I think both would agree with the

Gibbs

premise that chrysotile is much less potent than amphibole.

Q. Whether they would agree, do you think that they were published since 1985?

A. I think there were published statements, yes.

Q. So if I was to collect their published work since that time would I be likely to see such statements?

A. I think you would.

Q. Well, I guess the only way we'll know is to actually look. I'm not trying to put you on the spot, but would it be fair to say that we ought to look at those papers and see?

A. I think that's a decision you would have to make.

Q. Let me ask this question: Would you agree with me that as of today, late 1996, Sir Richard Doll has not published anything saying that, no, chrysotile is not implicated in the production of cancer?

A. I think that's correct.

Q. Would the same hold true of Julian Peto?

1 Gibbs

2 A. Yes.

3 Q. Would it be fair to say that if I was
4 a pulmonary physician in Minnesota and I was
5 attempting to gain some understanding from the
6 medical literature as to whether chrysotile can
7 contribute to mesothelioma or lung cancer and I
8 read the work of Doll and Peto I would be left
9 with the impression that, yes, it at least can
10 contribute to the two cancers?

11 MR. GERSON: Which, work he has in
12 front of him?

13 MR. BROWNSON: Any work to-date.

14 A. I think to read this paper you would
15 be left with that impression. I'm not sure if
16 you looked at any of the later papers you would
17 get that impression.

18 (Discussion off the record.)

19 MR. BROWNSON: Exhibit 2 is the Doll
20 and Peto paper we've been discussing.

21 (Plaintiff's Exhibit 2
22 for identification, document entitled Asbestos:
23 Effects on health of exposure to asbestos.)

24 (Luncheon recess taken at 12:35 p.m.)
25

1 Gibbs

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

3 1:30 p.m.

4 A L L E N R O B E R T G I B B S,
5 resumed, having been previously duly sworn, was
6 examined and testified further as follows:

7 CONTINUED EXAMINATION

8 BY MR. BROWNSON:

9 Q. Dr. Gibbs, when we broke for lunch we
10 were talking about the Doll and Peto article and
11 we were on the topic of the fact that the medical
12 literature historically has contained different
13 statements concerning the carcinogenicity of
14 chrysotile, and although you have given your own
15 view, would you agree with me that if one
16 searches hard enough in the medical literature
17 you can find almost any view expressed on this
18 topic?

19 A. Yes.

20 Q. And as an example I would like to
21 show you this next article which would -- we'd
22 better mark it as Exhibit 3, and just for the
23 record, it's a chapter entitled Mesothelioma by
24 Dr. Jack Harington in a book entitled The
25 Prevention of Cancer by Butterworth in London in

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1 Gibbs

2 1967 and we'll mark that and I'll show it to
3 you.

4 (Plaintiff's Exhibit 3
5 for identification, document entitled
6 Mesothelioma.)

7 Q. On the top of this Exhibit 3 I have
8 handwritten the title of the book that this came
9 out of and I guess the writing isn't easy to read
10 but it's called The Prevention of Cancer, R.W.
11 Raven and FJC Roe, editors, Chapter 31,
12 Butterworth, London (1967) and I'm not sure
13 you've ever read this book, but have you read
14 this or seen this before?

15 A. I don't think so.

16 Q. Are you familiar with Jack Harington,
17 do you know who he is?

18 A. I've heard of Jack Harington but I've
19 never met him.

20 Q. You're familiar with his background
21 and his South African background and association
22 with Mount Sinai and that sort of thing?

23 A. Yes, yes.

24 Q. This was published in 1967 but if you
25 look, for example, at page 209 of the book which

1 Gibbs

2 is the third page of the exhibit he has a section
3 entitled "The Possible Replacement Of
4 Carcinogenic Asbestos With Non-carcinogenic
5 Types," and if you go down to the bottom he
6 writes the "Results of animal experimentation so
7 far available suggest that crocidolite and
8 chrysotile may be more active in inducing
9 mesotheliomas than amosite," citing Harington and
10 Roe, 1965. "If the present trend is confirmed,
11 substitution in mining and industry of amosite
12 (for example) for the more dangerous types of
13 asbestos where these cannot be safely used may
14 become a practical and important preventive
15 measure."

16 Do you see that?

17 A. Yes.

18 Q. I take it as you sit here today you
19 would probably say that that statement is
20 nonsense; would that be fair to say?

21 A. Yes, it's interesting that in the
22 previous paragraph he starts off by saying,
23 "Epidemiological studies have shown that people
24 in the crocidolite mining districts in the
25 North-western Cape have a distinct risk of

1 Gibbs

2 developing cancer; this is not evident in areas
3 in the Transvaal where chrysotile and amosite are
4 mined."

5 Q. Then he goes on -- first, you're
6 correct, he cites the fact that in South Africa
7 crocidolite and amosite or chrysotile are mined.
8 He goes on to talk about chrysotile is implicated
9 in the production of mesothelioma and he starts
10 talking about his animal experiments, but the
11 reason I bring this up, would you agree with me,
12 Dr. Gibbs, that this is the sort of thing that
13 one sees in the medical literature, if you
14 actually study the stuff over time you see all
15 sorts of statements made, some of which, at least
16 in your view, are completely incorrect but
17 nevertheless these sorts of things appear by
18 reputable authors and published?

19 A. Yes.

20 Q. On a historical note you're familiar
21 with the fact that Conwed switched its asbestos
22 type from amosite to calidria chrysotile in about
23 1965, the complete switch was completed but
24 that's when the change was made, correct?

25 A. Yes.

1 Gibbs

2 MR. GERSON: You're asking if that's
3 what he knows?

4 MR. WILL: The records show what they
5 show. You're just asking him in general, you're
6 not asking him to testify?

7 MR. BROWNSON: No.

8 Q. You've just been told that by
9 Mr. Will?

10 A. Yes.

11 Q. So I guess it would be fair to say
12 that had someone at Conwed read, for example,
13 this chapter from a book in 1967 they might be
14 under the belief, mistaken in your view, that the
15 amosite they had previously used was safer than
16 the chrysotile they were switching to?

17 A. They might have got that impression
18 from this.

19 Q. The next thing I brought along, which
20 we'll mark as Exhibit 4, is a document from the
21 World Health Organization in 1989 entitled
22 Occupational Exposure Limit For Asbestos.

23 (Plaintiff's Exhibit 4
24 for identification, document entitled
25 Occupational Exposure Limit For Asbestos.)

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Gibbs

Q. I wanted to actually draw your attention to the appendix towards the end of this document. That doesn't really seem to have page numbers on it but it's entitled Asbestos Standards In Selected Countries and then they actually chart all these different asbestos regulations beginning in Belgium.

A. So this is right at the end?

Q. Yes. Actually if you count seven pages back from the end it starts.

A. So that's Annex 2?

Q. It says Annex 2, page 6, Appendix, Asbestos Standards In Selected Countries.

Do you see that?

A. Yes.

Q. What this appears to be is a listing in this document by the World Health Organization in 1986 of its asbestos standards in selected countries; would you agree with that?

A. Yes.

Q. The list starts Western Europe, the EEC members, which is Europe Economic Committee, then Western Europe, non-EEC members, then we've got Eastern Europe, Middle East and North Africa,

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1 Gibbs

2 Africa, Asian and Pacific countries, U.S.A. and
3 Canada and Latin America.

4 MR. GERSON: No Australia?

5 MR. BROWNSON: That's under Asian and
6 Pacific countries.

7 Q. I'm sure you're not familiar
8 intimately with all these standards but I take it
9 you've seen these published as various regulatory
10 bodies described in this appendix?

11 A. From time to time.

12 Q. And I've studied these and other than
13 some of these Eastern European countries that
14 have standards based upon what appears to be mass
15 measurements. They all generally appear to be
16 fiber per cubic millimeter, centimeter of air as
17 air measurement standards; would you agree with
18 me on that?

19 A. Yes.

20 Q. Again, all of them I see regulate all
21 of the asbestos types including chrysotile,
22 although most regulate different fiber types
23 differently; is that fair to say?

24 A. I think they have different rules for
25 different fibers. Put it this way. Crocidolite

1 Gibbs

2 is generally -- has a different limit to the
3 other asbestos fiber types.

4 Q. This appendix describes the limits as
5 Occupational Exposure Limit, which they call
6 OEL. Do you see that?

7 A. Yes.

8 Q. Again, you're an expert in the field,
9 but would you agree with me that if you were an
10 employer it would be fair to infer from this that
11 that is the limit which one would expect that you
12 would not exceed in the occupational workplace?

13 MR. WILL: Object to the form of the
14 question.

15 A. Yes, that's right.

16 Q. We can get into something maybe a
17 little more interesting. I want to show you
18 Exhibit 5.

19 (Plaintiff's Exhibit 5
20 for identification, one-page memoranda.)

21 MR. BROWNSON: One moment, before we
22 get into that, which you probably recognize.

23 Q. Going back to the World Health
24 document, Exhibit 4 we just looked at?

25 A. Yes.

Gibbs

Q. You, of course, are familiar with the World Health Organization, I take it?

A. I know of it, I have not had any specific dealings with it myself although I have attended the ILAC meetings, which are a branch of the WHO.

Q. This particular document, Exhibit 4, is a report by the World Health Organization entitled Occupational Exposure Limit For Asbestos, Oxford, United Kingdom, 10-11 April 1989.

Are you familiar with that particular meeting?

A. I wasn't there but I know Professor Pooley went to it and I think Chris Wagner went to it.

Q. It actually has a list of participants on it, let's see if Professor Pooley is here.

A. Pooley is, Wagner isn't. Perhaps he wasn't there but just from memory I thought he had been.

Q. Yes, here's Professor F.D. Pooley, and, again, that's the Professor Pooley you have

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1 Gibbs

2 collaborated with on the work that we've been
3 talking about this morning?

4 A. Yes.

5 Q. I guess there's a lot of text to this
6 report, but at least with respect to the
7 regulatory appendix that we were looking at, do
8 you have any reason to believe that any of that
9 is incorrect?

10 A. No.

11 MR. BROWNSON: Why don't we then move
12 on to the next exhibit, No. 5, and just for the
13 record, this is a piece entitled "Fibrosis Of The
14 Lungs Due To The Inhalation Of Asbestos Dust" by
15 Dr. W.E. Cooke, C-o-o-k-e, Wigan Infirmary (with
16 special plate.) We don't have the plate.

17 You, of course, are familiar with
18 this, just as a matter of historical note?

19 A. I've seen this on a number of
20 occasions.

21 Q. This has been described by numerous
22 people as one of the first reported cases of
23 asbestosis; would that be a fair description of
24 it?

25 A. Yes.

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Gibbs

Q. It describes this woman who apparently died at the age of 33 after working 20 years at some sort of asbestos facility or facilities and my question to you is are you aware of the asbestos fiber types to which she was exposed?

A. I don't know absolutely but what I interpret, what I read in this paper is notable that the coroner was the coroner for Rochdale. I think it was likely she worked at Rochdale Textile Plant and she would be exposed to crocidolite and chrysotile.

(Mr. Goldman entered the deposition proceedings.)

Q. There actually are a series of publications related to this particular case. I believe this woman's name is Nellie Kershaw; is that correct?

A. I don't know.

Q. It's your belief that she was seen by the Rochdale coroner and that she worked at that plant that we described earlier in the deposition?

A. I think that's the likelihood.

1 Gibbs

2 Q. Next I'd like to show you a series of
3 three exhibits.

4 (Plaintiff's Exhibit 6
5 for identification, document.)

6 (Plaintiff's Exhibit 7
7 for identification, document.)

8 (Plaintiff's Exhibit 8
9 for identification, document.)

10 Q. What I have shown you, Dr. Gibbs, and
11 marked as Exhibits 6, 7, and 8, are a series of
12 three slightly different incarnations of the
13 British 1931 asbestos regulation. And just to
14 move this along, for some reason unknown to me
15 the 1931 asbestos regulation was published in
16 this three-part chronology. I'm not sure why,
17 maybe you do?

18 A. I don't know.

19 Q. You're familiar with the fact, of
20 course, that this is the first asbestos
21 regulation in Great Britain; is that correct?

22 A. Yes, this is based on the main report
23 for the factories.

24 Q. It's actually a government position
25 and that's the title in Britain?

Gibbs

A. Well, it was then.

Q. Based upon his report this regulation was passed in 1931 and if I could summarize would it be fair to say that what we have here is a regulation regulating occupational exposure to asbestos in Britain and setting forth all sorts of penalties and medical monitoring that have to take place?

A. Yes.

Q. As I read this this is the regulation that applies to, and correct me if I'm wrong on this, it applies to British employers regulating essentially their conduct in exposing their workmen to asbestos; is that correct?

A. That's correct.

Q. If you actually take the time to read all these things, and I don't think we have to do it at this moment, it actually sets out a monetary compensation scheme if an employee is found to have an asbestos-related occupational disease that meets certain regulatory criteria?

A. Yes.

Q. Would you agree that some form of this regulation, I'm sure it's changed over time,

Gibbs

it's remained in effect in Great Britain to today?

A. Yes.

Q. You've told us today that you've actually seen as a clinical pathologist cases arising under this act that this is employers' liability law in Britain, correct?

A. Yes.

Q. Would you agree with me that the '31 act which was the first British Workers' Compensation Act and the subsequent apply to all of the asbestos fiber types, including chrysotile?

A. I don't think -- they didn't differentiate between the fiber types.

Q. Were calidria to be used in a -- calidria asbestos to be used in a British manufacturing facility that calidria asbestos would be subject to the British asbestos Workers' Compensation regulations?

A. Yes.

Q. I'm not sure I asked this before, I don't think I did. Do you have any knowledge of whether calidria was or was not used in British

1 Gibbs

2 facilities? Have you ever looked into that at
3 all?

4 A. No, I've never seen any data to
5 indicate that this was used to any significant
6 extent.

7 Q. Did you ever see any reference,
8 whether from Mr. Gerson or Mr. Will, in your
9 discussions, in your own reading, to the fact
10 that the British dock workers were threatening to
11 strike in 1965 and refusing to unload bags
12 containing calidria asbestos?

13 MR. WILL: I object. That misstates
14 the facts.

15 MR. BROWNSON: Not by much.

16 MR. WILL: Yes. If you want to
17 delete the calidria reference I'll withdraw the
18 objection.

19 MR. BROWNSON: I don't won't to, that
20 was the fact. I'll ask have you ever run across
21 that fact.

22 MR. WILL: Object to the question.

23 Q. Have you ever run across the
24 historical reference that British dock workers
25 refused to unload bags containing any types of

Gibbs

asbestos in 1965?

A. Not specifically, but I know during the time in the middle '60s that a lot of dockers were refusing to unload a lot of times. I'm not sure it was just asbestos but they might have done it with a lot of other things too.

Q. In your experience in Britain in seeing cases arising out of the British Workers' Compensation regulation, asbestos regulations, has it been your experience that the unions have been active in pursuing cases or pushing forward the cases of employees under this asbestos regulation?

A. The unions have been involved with some of the cases but the coroner system is such in the U.K. that it's a legal requirement for the physician treating any person with a disease that is suspected of being related to an occupational exposure to report that case to the coroner at death, which is why post-mortem is then carried out.

Q. What about if you have a case that has not resulted in a death but it's an occupational exposure pulmonary impairment type

Gibbs

case?

A. There was a medical boarding system, sort of tribune, that looks to which of the cases it reported to and then assesses the case. They do some lung function, chest x-rays and taken exposure history, etc. and they would come to conclusions about whether there's an asbestos-related disease present or not.

Q. In your experience have the unions been active in advancing or pushing those cases on behalf of employees in Britain?

A. Some cases, but the system tends to happen anyway.

Q. Let me ask you this: Currently in 1996 are there any operating asbestos manufacturing facilities in Great Britain?

A. Not to my knowledge.

Q. As a man of your clinical pathology practice have you in the last five years seen a case of pulmonary asbestosis?

A. Yes.

Q. How many of those have you seen?

A. I can't give you a precise number but no more than about 20 and my impression is that

Gibbs

over the last 15 years that the number of cases of asbestosis have been reduced considerably.

Q. Those cases that you've seen in your clinical practice, have those been referred to you by local physicians or have those been referred to you by the American Asbestos Litigation?

A. These have been mainly cases that have been referred from other pathologists in the U.K. Some on occasion, I have had many cases from the lawyers in the U.K. and they've usually been with people exposed -- who were occupationally-exposed in the '40s and '50s.

Q. These cases, as a pathologist, have these been autopsy cases?

A. Yes.

Q. Has it been part of your practice as a clinical pathologist to see cases of asbestos-exposed individuals who have relatively minor symptoms, such as very slight changes on CT scan or x-ray, something less than interstitial fibrosis or do you tend not to see those cases because those cases don't come to review by pathologists?

Gibbs

A. There's two elements to that. If the case is just sort of mild changes then it's unlikely to come to post-mortem unless they die for other reasons. But I do see cases on occasion that where they have died and where there is said to be a high exposure to asbestos where they have died of something else, but nevertheless I've seen mild degrees of fibrosis in the lungs that are undetectable by chest x-ray.

Q. Let me ask you this: Have you ever seen a case where it is claimed by some physician in Britain that an asbestos-exposed individual who dies from some cardiac insufficiency died as a result of asbestos-related pulmonary problems that put stress on his heart?

MR. WILL: Rule out cor pulmonale?

MR. BROWNSON: I can rephrase it.

A. You can't rule it out. If it is putting strain on the heart then it is cor pulmonale.

Q. Workers' Compensation indications have been presented to Conwed where we literally have had people die of heart attacks; he was

1 Gibbs

2 exposed to asbestos, there was a pulmonary
3 condition there that attributed to strain on the
4 heart that caused the heart attack. Have you
5 ever seen that in Britain?

6 A. Yes.

7 Q. Have you ever been involved in any
8 cases like that?

9 A. Involved in the lung and whether it
10 was likely to have effects that it would affect
11 the heart.

12 Q. Have you seen cases where that was in
13 fact the case?

14 A. It only occurs in individuals with
15 severe asbestosis and regulatory change and you
16 can actually see the fibrosis by naked eye when
17 you look at the lung. When its less than that it
18 doesn't usually have any significant effect on
19 lung function.

20 Q. Have you seen any cases where you
21 have an individual where, for example, was a very
22 heavy smoker and has very poor pulmonary function
23 as a result of the smoking and some asbestos case
24 tries to advance a claim like that?

25 MR. WILL: Like what, he died of a

Gibbs

heart attack?

MR. BROWNSON: Yes.

Q. Caused by pulmonary deficiency attributed to asbestos exposure?

A. Yes.

Q. Do you see many of those claims?

A. There's a heightened awareness of asbestos exposure so there's a lot of people even with a very short and low exposure to asbestos will attribute their pulmonary problems to their exposure and will tend to ignore the fact that they smoke 30 or 40 cigarettes per day, etc.

Q. I guess my question is this: You have seen such cases and have you ever seen a case where you would substantiate that sort of contention in a heavy smoker like that?

A. I have seen cases where people who have been exposed to asbestos, to light exposure to asbestos, in which the disease is what I would regard as solely due to cigarette smoking. There is confusion between exposure and causation because it's not the same thing.

Q. That's a good point because would you agree that even physicians often confuse exposure

1 Gibbs

2 with causation or ideology?

3 A. Yes.

4 Q. Would you agree that this even occurs
5 sometimes with pulmonary physicians?

6 A. Yes.

7 Q. Have you ever seen Workers'
8 Compensation cases presented in Great Britain
9 where you've got, for instance, a heavy smoker
10 with no radiographic class of interstitial
11 fibrosis who is advancing this sort of claim that
12 his heart problems were caused in part by his
13 asbestos exposure and a physician on his behalf
14 will actually support that kind of claim?

15 A. Yes.

16 Q. Let me ask you this: Have you ever
17 issued a report in a case like that where you
18 have stated that no, this is not the case and
19 nevertheless that worker has gone on to win some
20 sort of monetary compensation?

21 A. Usually I'm not involved at that
22 stage. I tend to be involved at the post-mortem
23 stage.

24 Q. Have you heard of such cases in which
25 you are not involved where that has occurred in

Gibbs

Britain?

A. Yes.

MR. GERSON: If he was not involved it wouldn't have been his recommendation.

MR. WILL: Just to be clear.

MR. BROWNSON: Let me rephrase the question.

Q. Cases you've not been personally involved in have you heard of such cases in Britain where you've got a heavy cigarette smoker with little exposure and some physician advances the notion that some heart attack or cardiac problem was attributed to by asbestos exposure?

A. Yes.

Q. Have you heard of cases in Great Britain on those facts, where people have actually been awarded monetary compensation by their employer?

A. I believe some.

MR. WILL: Due to asbestos as opposed to something else?

Q. Yes, due to asbestos.

A. I believe that has happened.

(Discussion off the record.)

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1 Gibbs

2 MR. BROWNSON: Exhibit 9 is an
3 article from the Volume 13 January to December
4 1930 issue of Minnesota Medicine.

5 (Plaintiff's Exhibit 9
6 for identification, article from the Volume 13
7 January to December 1930 issue of Minnesota
8 Medicine.)

9 Q. Dr. Gibbs, what I've shown you is
10 Exhibit No. 9 which I'll represent to you I
11 believe to be the first case report of an
12 asbestos-related disease arising out of the State
13 of Minnesota and I'll ask you have you ever seen
14 this before?

15 A. No.

16 Q. This is a case report dated 1930 in
17 the Journal of Minnesota Medicine which describes
18 a 58 year-old man who was seen in the male clinic
19 in extremis, which in layman's terms means on his
20 deathbed, on May 26th, 1929, and all sorts of
21 findings are found here, but if you slide your
22 way through it there appears to be a diagnosis of
23 asbestosis or some sort of asbestos-related
24 ideology made here.

25 A. Yes.

Gibbs

1
2 Q. Is that fair to say?

3 A. Yes.

4 Q. Now look at the photocopy of plates
5 on the page where they show these fiber bundles.
6 Are you able to make any sort of interpretation
7 as to what those might show?

8 A. No.

9 Q. As to type or size or anything like
10 that?

11 A. No.

12 But in Figure 2, I can't tell from
13 the illustration what's there, but it says "The
14 scattered black dots are 'asbestosis bodies,'
15 indicating that a portion of the fibers, at
16 least, had undergone change in the tissues." If
17 those are asbestosis bodies, which I think they
18 mean asbestos bodies.

19 Q. Right.

20 A. Then the odds are highly stacked that
21 those are amphibole fibers.

22 Q. It is your view that asbestos bodies
23 are largely created by amphibole fibers?

24 A. Yes.

25 Q. Have you ever seen chrysotile

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Gibbs

infected by amphibole bodies?

A. I have but very rare.

Q. There's a reference at page 497 -- actually there's a number of references, but I've circled on page 497 below the illustrations where they talk about "The majority of asbestos fibers of small size lay in a confused mass of giant cells, which seemed to represent a foreign body reaction."

Do you see that sentence?

A. Yes.

Q. There's references throughout here to what they describe as "giant cells." Now, I guess as a matter more of historical interest giant cells is a term we see today, but do you know what they're talking about when they describe giant cells here?

A. They're talking about giant-type histocytic cells which are generally giant macrophages.

Q. Earlier in the deposition you mentioned that among the materials sent to you by Mr. Gerson were these two Mellon Institute parts.

1 Gibbs

2 MR. BROWNSON: And what we will do is
3 we will mark as Exhibit 10 the first of those,
4 which is the 1966 report and, for the record,
5 this is the July 8, 1966 report by the Mellon
6 Institute.

7 (Plaintiff's Exhibit 10
8 for identification, the July 8, 1966 report by
9 the Mellon Institute.)

10 MR. BROWNSON: And then let's mark as
11 Exhibit 11 the September 3rd, 1971 Mellon
12 Institute report.

13 (Plaintiff's Exhibit 11
14 for identification, the September 3rd, 1971
15 report by the Mellon Institute.)

16 Q. And, first of all, I understand that
17 you have previously received these from
18 Mr. Gerson and have you read them?

19 A. Yes.

20 Q. Had you ever seen them before they
21 sent them to you a few weeks back?

22 A. No.

23 Q. And, again, they were sent to you in
24 connection with the material that was sent to you
25 for use in this case?

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Gibbs

A. Yes.

Q. Have you ever seen any other reports or data concerning animal inhalation or injection experiments carried out by the Mellon Institute?

A. No.

Q. Do you know what the Mellon Institute is?

A. No.

Q. Are you familiar with the Carnegie/Mellon Institute in Pittsburgh?

A. Well, I've heard of them but I don't know exactly what they do.

Q. In any event, based upon your reading of these two reports would you agree with me that what has happened here in both instances in 1966 and '71 that different animals have been injected with different amounts and types of asbestos fiber?

A. Yes, and there's also the tracheal inhalation experiment as well.

Q. If you look at the 1966 report it refers to three types of fiber. One is called CMS-100 refined fiber, the second is JT-100 standard fiber, and the third is Johns Manville

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Gibbs

screened fiber.

Do you see that?

A. Yes.

Q. Are you aware of the fact that the first two are Union Carbide calidria fibers and third is Johns Manville chrysotile?

A. Yes.

Q. If you look at page 2 of this report under the heading intraperitoneal Injections and under the heading "Results" it indicates that "CMS-100 produced the most severe reaction in the form of granulomas with giant cells in six of the seven guinea pigs examined micropathologically."

Do you see that?

A. Yes.

Q. Are these the same giant cells of the sort we saw in the 1930 Minnesota report?

A. Giant cells are a common response to --

(Telephonic interruption.)

A. Giant cells are a common response to foreign body materials putting -- being placed in the human tissue anywhere. For example, if a

1 Gibbs

2 surgeon does an operation and there's some
3 sutures in the tissue a foreign body giant cell
4 will occur to that.

5 Q. Similarly if you inhale or inject
6 fibers into the lung tissue you can get
7 production of giant cells?

8 A. Yes, although it's not a frequent
9 finding.

10 Q. I want to direct your attention to
11 the paragraph immediately beneath that which
12 says, "JT-100 asbestos fiber produced a
13 granulomatous reaction in all of the eight guinea
14 pigs as well as the one rat subjected to
15 micropathological examination."

16 And I'm curious about that because I
17 note in the curriculum vitae you have written
18 concerning granulomatous. Are you talking about
19 the same sort of problem here.

20 MR. WILL: Objection. Why don't you
21 ask him to define it.

22 MR. BROWNSON: I'll do that, although
23 I'm not sure it's a proper objection?

24 A. One of the problems of granuloma is
25 it's used more specifically in some areas and

1 Gibbs

2 loosely in other areas. I think in the U.K. we
3 are very -- we're much more narrow. We have a
4 narrower base on the use of the term granuloma
5 where it's usually applied to tuberculosis where
6 you get compact epithelial-type matter and giant
7 cells are formed. There are the looser tissue,
8 but in the U.S. it is called granuloma, but I
9 don't think we'll use that term.

10 Q. With respect this that's referred to
11 in the Mellon report we're looking at
12 granulomatous. Do we know how they are defining
13 the term there?

14 A. No, but I suspect what they mean is a
15 microphage reaction.

16 Q. For the benefit of all of us can you
17 describe what a microphage reaction is?

18 A. If you get an accumulation of the
19 cells in microphage type in any location and
20 these are cells that scavenge and pick up cells
21 and produce various materials to combat the
22 presence of foreign body materials.

23 Q. Based upon your reading of the two
24 Mellon Institute reports which are Exhibits 10
25 and 11, do you have any opinions or conclusions

Gibbs

as to the material presented in these reports?

A. I'm sorry, conclusions about what?

Q. Well, I'm trying to ask you broadly at first to see if you have any opinions or conclusions which you've derived from these reports and if so we'll narrow it down and see what it is.

A. I don't think these reports provide any evidence of calidria chrysotile being pathogenic in humans.

Q. Would you agree that they provide evidence of calidria chrysotile being fibrogenic in guinea pigs, rabbits and rats?

A. Insofar as that they have put large doses into either directly or by the litkia (phonetic) to produce a fibrotic response, yes.

Q. Would the production of these what they describe as multi-nuclear giant cells be an indication to you of pathogenesis in these animals?

A. That it's a foreign body response.

Q. By that, again, this is a macrophage cell they're speaking of?

A. Yes.

MANHATTAN REPORTING CORP.

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1 Gibbs

2 Q. Which are responding to the foreign
3 body injected into the tissues here?

4 A. Yes.

5 Q. And in your experience with animal
6 injection and inhalation experiments with
7 asbestos have you seen that it's the macrophage
8 cells that tend to get these sorts of reactions
9 because they're the scavenger cells among others?

10 A. Whatever material gets in the lungs
11 is typically the macrophage response, it responds
12 to it, it is a normal response.

13 MR. WILL: Would you please read back
14 the last question and answer.

15 (Requested portion of record read.)

16 MR. BROWNSON: The next thing we will
17 mark as Exhibit 12. For the record, these are
18 some notes from the Mellon Institute of
19 Industrial Research-Chemical Hygiene Fellowship.
20 Let me just take a moment to find the date here
21 because I know it's on there.

22 Dated sometime in 1968 but I can't
23 find where it is. Let's just take one minute.

24 Dated October 21st, 1968. I mean,
25 August 21, 1996 and subsequent dates.

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1 Gibbs

2 (Plaintiff's Exhibit 12
3 for identification, notes from the Mellon
4 Institute of Industrial Research-Chemical Hygiene
5 Fellowship.)

6 (Witness perusing documents.)

7 Q. My first question will be have you
8 ever seen this document before?

9 A. No.

10 Q. Although you've never seen it before
11 I take it given your work with Dr. Wagner at the
12 Medical Research Center do have any familiarity
13 with the animal injection and inhalation
14 experiments?

15 A. Yes, but I can't transcribe all these
16 figures.

17 Q. Yes, what I want to ask you is on the
18 front of the second page, because these are all
19 two-sided pages, but the front of the second
20 page.

21 MR. WILL: Bates stamped A03106 on
22 the side.

23 Q. Yes, if you look over to the Sample
24 31-232 Asbestos "T" open, then under that it says
25 how this was prepared and it says Solution in

Gibbs

water.

Do you see that?

A. Yes.

Q. Then it says Route IP. Do you interpret that to be what they did was an intraplural or intraperitoneal of asbestos solution in water? Is that what this seems to indicate?

A. I think it's intraperitoneal.

Q. Can we tell that one way or the other?

A. No.

Q. If it's intraplural or intraperitoneal?

MR. WILL: You're asking what his assumption is. He can't possibly tell you the way you're phrasing your question, tell you for a fact?

A. People generally use IP for intraperitoneal but I can't be certain.

Q. If you injected intraperitoneal solution into the animal, which in this case were rats; is that correct?

A. Yes.

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Gibbs

Q. Then if you look at the two pages beyond that we see one that has this number stamp at the top 087645.

Do you see that?

A. Yes.

Q. This is also sample 31-232 Asbestos "T" open. This says Solution in H2O, which is solution in water, correct?

A. Yes.

Q. Then it says "Route Oral, Species Rats." What are they doing here, are they simply administering asbestos solution into the mouth of the rat?

A. Yes.

Q. So they're not actually injecting, they are just squirting it into the mouth?

A. Whether the rat is drinking it or they are squirting it, but it's not injected.

Q. It's not injected or inhaled?

A. It's not injected physically into tissue.

Q. That's what I was trying to figure out. It's not injected into tissue or inhaled in air or water being drunk, it's squirted into the

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Gibbs

mouth of the rats:

A. Yes.

Q. Then if you go one, two pages beyond that the next one we see, it's harder to read the number, but on the side of the page is A03112.

Do you see that?

A. Yes.

Q. Sample 31-232, Asbestos "T" open. Now it's called Suspension in H2O. Do you know what the difference is between solution and suspension?

A. I'm not quite sure how they're defining it here.

Q. As long as it's in water isn't solution and suspension the same thing?

A. I would have thought so but I don't know.

Q. Although you are not in a position to interpret what all these numbers mean on this report, would you agree with me that what we have here is some notes by the Mellon Institute of various rats experiments either injecting or giving oral doses of asbestos in a water solution to rats?

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1 Gibbs

2 MR. WILL: I object to this. Bob,
3 this witness can't possibly testify to the
4 foundation of this document. All he can do --

5 MR. BROWNSON: I'm not asking him to
6 testify to foundation.

7 MR. WILL: Would you agree that what
8 we have is this, he can't do that, he can tell
9 what it seems to say on its face, he can't
10 authenticate the document.

11 MR. BROWNSON: I'm not asking him to
12 authenticate the document.

13 MR. WILL: The way you ask the
14 question.

15 Q. I'm not worried about authenticating
16 the document. Let me ask you would you agree
17 that this document seems to describe a
18 compilation of data obtained by injecting or
19 giving oral doses of asbestos in water to rats?

20 A. Yes.

21 Q. Have you ever seen any published data
22 from the Mellon Institute with respect to the
23 rat, guinea pig and rabbit experiments we've seen
24 described in the last three exhibits, 10, 11 and
25 12?

Gibbs

A. No.

Q. Until this material was forwarded to you by Mr. Gerson a few weeks back had you seen any data concerning those experiments with rats?

A. No.

Q. The next thing I wanted to show you we've actually touched on a little earlier. We'll mark this as Exhibit 13.

MR. BROWNSON: For the record, this is a Nolan, Langer and Addison paper entitled "Lung Content Analysis of Cases Occupationally Exposed to Chrysotile Asbestos."

THE WITNESS: I'll wait until I see it.

(Plaintiff's Exhibit 13 for identification, reprint of an article published in Volume 102, Supplement 5, October 1994 issue of Environmental Health Perspective.)

Q. Take a moment, Dr. Gibbs, and let me know when you're ready here to discuss this.

(Witness perusing document.)

A. Yes, okay.

MR. WILL: I need to make a phone call. Do you mind if Alan takes over for a few

1 Gibbs

2 minutes? Is that fine with you? It may take
3 five minutes for me to do it. Why don't you go
4 ahead.

5 (Mr. Will left the deposition
6 proceedings.)

7 MR. BROWNSON: For the record,
8 Exhibit 13 is a reprint of an article published
9 in Volume 102, Supplement 5, October 1994 issue
10 of Environmental Health Perspectives by
11 Drs. Nolan, Langer and Addison, which is spelled
12 A-d-d-i-s-o-n.

13 Q. I take it you're familiar with this
14 particular article?

15 A. Yes, I've read it for a couple of
16 years.

17 Q. You're familiar with Drs. Nolan,
18 Langer and Addison, I take it?

19 A. Yes.

20 Q. Have you ever collaborated with any
21 of those three in research?

22 A. Not specifically although I've
23 discussed issues with them on a number of
24 occasions.

25 Q. You know Dr. Langer, Dr. Nolan is his

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Gibbs

associate and Dr. Addison is from the Institute of Occupational Medicine in Edinburgh, Scotland.

A. He's not in Scotland, I think.

Q. Where is he?

A. He does free-lance in Edinburgh but does consultancy work now.

Q. They're in asbestos mineralogy and occupational disease?

A. Yes.

Q. What I wanted to do was draw your attention to the Table 1, which is on the second page of the text here up at the top, and this is a size distribution table of four different chrysotile specimens; is that correct?

A. Yes.

Q. One is a UICC A, which is a chrysotile from Zimbabwe?

A. Yes.

Q. And UICC B is a chrysotile from Canada?

A. Yes.

Q. UICC A and B are standard specimens?

A. We did discuss this a little earlier on and I think you led me to think the A was the

Gibbs

Canadian one, but in fact it is Zimbabwe.

Q. Yes, I stand corrected on that. We discussed this earlier in connection with tremolite but I want to look now at this table, which is a size distribution table, and would you agree with me that based upon this data what we see is that the calidria chrysotile has a greater number of fibers, between five and ten microns, than does either the Canadian or African chrysotile?

A. Yes, according to the specimens they tested here.

Q. Likewise it has a greater number of fibers, over ten microns, than either of the other two types of chrysotile shown here?

A. More than the UICC B.

Q. But over twice as much as the Rhodesian?

A. Yes.

MR. GERSON: Zimbabwe.

MR. BROWNSON: I'm sorry.

Q. It is stated in the paper that the tremolite fibers present in these six cases were not comparable to tremolite known to induce

Gibbs

mesothelioma in animals.

Do you see that?

MR. GERSON: Where is that?

MR. BROWNSON: Well, it's succinctly stated in the abstract but it appears again in the conclusion. I'm trying to find it. Oh, yes, right toward the end in the conclusion.

A. Sorry, where does the statement begin?

Q. Well, I'm trying to see if I can find it in the text. I had actually made a reference to this conclusion in the note where they were talking about -- this note in the conclusion where they're talking about these calcium-magnesium-silicate fibers, commonly known as tremolite, particularly in Thetford.

Do you see that?

A. Which page are we on?

Q. Very last page toward the end.

A. Yes.

Q. What they seem to be saying here as I read this is that what they're finding and describing as tremolite is not the sort of tremolite that's causing mesothelioma in animals

1 Gibbs

2 and I think that's describing cleavage fibers as
3 opposed to tremolite fibroid; is that correct?

4 A. I can't see where it mentions
5 cleavage fragments.

6 Q. Looking for reference 13 which is in
7 my notes and now I can't find it.

8 Now I don't see it either.

9 Let me ask a different question.
10 I'll start with an easy part. At least in the
11 abstract the statement is made that "the
12 characteristics of the calcium-magnesium-iron
13 silicate fibers present in all six cases were not
14 readily comparable to tremolite asbestos
15 specimens known to induce mesotheliomas in
16 animals."

17 Do you see that?

18 MR. GERSON: Where is that, the first
19 page?

20 MR. BROWNSON: Up on the abstract in
21 the first page.

22 A. Yes, okay.

23 Q. You had earlier talked about this
24 cause you had seen from Dr. Langer that had this
25 high chrysotile asbestos burden but no

Gibbs

tremoloid. Is that the case described in this here or is that a different case?

A. Well, I don't know because I think there was another paper in which he described such a case, but whether it's the same case reported a second time I'm not sure.

Q. Okay. Would you agree with me at least that in this paper what is called Case 6 is a case that has a very high burden of chrysotile and virtually no other fiber?

A. Well, I think the problem that I have with this Case 6 that if we go back to the discussion and conclusion it says, "The lung content of Case 6, who developed a pleural mesothelioma, is of particular interest because of the extremely high content of chrysotile found. Approximately 2.7 million fibers of greater than .5 microns in length per gram of dry lung tissue were found in each of the two parenchymal tissue specimens and more than 99 percent of the fibers identified were chrysotile. Using a protocol with an analytical sensitivity of approximately 4.6 million fibers per gram of dry lung, no commercial amphibole

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1 Gibbs

2 asbestos minerals were detected in either
3 specimen of Case 6."

4 What it boils down to is it is a
5 significant amount of balance here of two million
6 that they might well not detect if a commercial
7 amphibole in that case, but because they didn't
8 count more fibers or type more fibers that they
9 might not have detected it. I think they typed
10 about 350 fibers, it might have meant that they
11 needed to count type a thousand to 1500.

12 Q. In order to get down a sensitivity of
13 one million fibers?

14 A. Yes.

15 Q. Which you consider to be a background
16 level?

17 A. Yes.

18 Q. In any event, using the sensitivity
19 they did employ they found more commercial
20 amphibole in this case?

21 A. That's what they reported.

22 Q. Would you agree with me that at least
23 as reported in Table 1 in this paper, which is
24 the size distribution table, calidria chrysotile
25 is not in fact shorter than Canadian or Zimbabwe

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Gibbs

chrysotile?

MR. GERSON: Objection.

Q. Let me put it this way: The table shows it to be shorter than either types of chrysotiles; is that correct?

A. Yes.

Q. In fact, it's also true the table shows it to be longer than those other types of chrysotile in its size distribution?

MR. GERSON: You're asking the witness what the table purports to show?

MR. BROWNSON: Right.

A. Slightly.

Q. The next exhibit I have is numbered Exhibit 14.

MR. BROWNSON: For the record, it's an article by or paper by Dr. J.C. Wagner, W-a-g-n-e-r, and others from the Medical Research Council's Pneumonconiosis Unit at Penarth published in the British Journal of Cancer in 1974, page 252 of Volume 9.

Mark that as 14.

(Plaintiff's Exhibit 14
for identification, document entitled The Effects

1

Gibbs

2

Of The Inhalation Of Asbestos In Rats.)

3

4

5

Q. Whenever you're ready to answer,
Dr. Gibbs, I'll ask you have you read this paper
before?

6

A. Yes.

7

8

9

Q. Were you involved in either the
preparation of the paper or inhalation
experiments that are published here?

10

A. No.

11

12

13

Q. This was done by Dr. Wagner who was,
I don't want to say your chief, but your
colleague at the Medical Research Center in 1974?

14

15

A. Yes, he would have been, if you like,
my chief at that time anyway.

16

17

Q. I'm not sure what the proper term
was.

18

19

20

21

A. Well, he was the senior pathologist
with the MRC unit at the particular time I was
still the equivalent of a resident pathologist at
that time.

22

23

24

Q. He was the -- I guess for the want of
a better term -- chief pathologist or senior
pathologist?

25

A. At the MRC unit.

1 Gibbs

2 Q. At the Medical Research Council Unit
3 in Wales?

4 A. Yes.

5 Q. Just a matter of interest, that that
6 unit arose because of the coal mining there?

7 A. Yes.

8 Q. I guess I don't know why it was
9 discontinued in the '80s because the coal mining
10 basically died out in that part of Wales?

11 A. No, strategic decisions made in the
12 MRC that they were going to switch from fixed
13 units with long-term funding to more short-term
14 funding of studies, so they closed that one and
15 some other units as well.

16 Q. When was that unit closed, was
17 that --

18 A. Most of it was closed in '85, I
19 think, and then -- but the pathology bit was
20 closed until either '87 or '88.

21 Q. Following the closure of the
22 pneumoconiosis unit run by Dr. Wagner I take it
23 that your work has basically been that of
24 clinical pathology as opposed to previously being
25 involved in research projects?

Gibbs

A. I was never employed by the MRC unit. I worked with Dr. Wagner because there was -- in the same hospital there was a clinical laboratory of the pathology and, in fact, the other hospital is the main university hospital and college. My job as a resident pathologist was to rotate between these two hospitals and in the mid-1970s, round about that time, '73, '74, I started because of the influence of Dr. Wagner and other pathologists who worked on the clinical side, not the MRC.

Dr. Seal and I worked and collaborated in various research projects and also on the diagnostic aspects. That I continued to do and I then had a tenured position, what we call senior lecturer, which is the equivalent of the associate professor here, at the university and I continued to work with Dr. Wagner on various projects until 1985 when I moved from the University Hospital to a permanent post at Thandock Hospital, which is in the clinical laboratory which Dr. Seal retired from, but Dr. Seal and Dr. Wagner worked very closely for many years before that because of a juxtaposition

1 Gibbs

2 of clinical and experimental pathology.

3 Q. So in a rough sense Dr. Wagner was
4 clinical and Dr. Seal was clinical and they
5 worked together?

6 A. Yes.

7 Q. You were always on the clinical side
8 but you worked on the research project?

9 A. Yes.

10 Q. When it closed in '85 to '87 you went
11 back to the clinical pathology?

12 A. I worked with Dr. Wagner until '87 or
13 '88 until he retired and then he began with his
14 retirement and then what happened I tended to get
15 the human cases that have been referred to
16 Dr. Wagner up to that point, came to me and he
17 was from outside the area.

18 (Mr. Will returned to the deposition
19 proceedings.)

20 Q. The cases continued to come in even
21 though Dr. Wagner retired so you simply took
22 those cases even though the hospital did clinical
23 practices?

24 A. I continued doing research and
25 working with Dr. Pooley on various studies.

1 Gibbs

2 Q. In any event, back in 1974 when this
3 paper was published in the British Journal of
4 Cancer from the pneumoconiosis unit at Penarth,
5 which was in Wales, was up and running and doing
6 inhalation experimentss on animals?

7 A. Yes.

8 Q. Would you agree with me that what is
9 reported in this particular paper is a series of
10 results from rats exposed by inhalation to
11 asbestos dust of a number of different samples,
12 three amphiboles and three chrysotiles?

13 A. Yes.

14 Q. As reported by Dr. Wagner and the
15 others it says that these rats who inhaled the
16 dust each of the five samples of three amphiboles
17 and three chrysotiles produced asbestosis,
18 correct?

19 A. Yes.

20 Q. It's reported that some mesotheliomas
21 were produced as well, correct?

22 A. Yes.

23 (A recess was taken.)

24 Q. I think the last question I asked,
25 Dr. Gibbs, was that some mesothelioma was

Gibbs

reported among the rats that inhaled the
different samples as well, correct?

A. Yes.

Q. And Table 7, page 264, that lists the
different rats that obtained different tumors
including the mesothelioma, correct?

A. Yes.

Q. If we look at the columns on that
table we see that of the rats exposed to amosite
there were a total of 146 rats and 38 of those
rats obtained some sort of lung tumor; is that
fair to say?

A. Yes.

Q. Of which six was adenocarcinoma,
right?

A. Five were adenocarcinoma.

Q. Right. That's a form of lung cancer?

A. Yes.

Q. But six developed carcinoma?

A. Yes.

Q. A form of lung cancer?

A. Yes.

Q. And 19 developed adenoma?

A. Yes.

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Gibbs

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Q. What does adenoma refer to?

A. Benign tumor of the lung.

Q. Was that the same as adenomatosis?

A. Yes, multifocal.

Q. That's a benign tumor as well?

A. Yes.

Q. Is that as malignant adenoma,
adenocarcinoma and mesothelioma?

A. Yes.

Q. So to summarize the 38 had tumors
either benign or malignant, correct?

A. Yes.

Q. Of those 12 were malignant tumors,
correct?

A. Yes.

Q. If we look at the Canadian chrysotile
we see that 137 rats of whom 45 got one tumor or
another, correct?

A. Yes.

Q. Of those tumors -- you have to help
me here because I'm not sure what the
adenocarcinoma numbers mean -- but 17 of those
and four mesotheliomas?

A. Yes.

Gibbs

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Q. What are those numbers in parentheses there, what does that mean, if you know?

A. Oh, it says "Numbers in brackets are those with metastases"; in other words, that they had spread of tumor beyond the lung.

Q. Where do you see that? I didn't see that.

A. It's down underneath the table, second line. Got a little cross next to it.

Q. Oh, yes, there it is, I'm sorry. So in terms of the rats exposed to Canadian chrysotile there were lesser number of rats and more tumors, correct?

A. Yes.

Q. And there were more adenocarcinomas, right?

A. Yes.

Q. More than twice as many?

A. Yes.

Q. And there were about the same amount of squamous carcinomas and four times as many mesotheliomas?

A. Yes.

Q. At greater than the number of rats

Gibbs

according to the crocidolite, correct?

A. Yes.

Q. I understand your position that animal data needs to be read in conjunction with human data and you obviously don't take this in a vacuum and you believe that this is an accurate representation of the cancer crocidolite, correct?

A. I don't know.

Q. This paper was published in 1974. Would you agree with me that at that time Dr. Wagner was considered a leading researcher in the field of asbestos health effects and specifically asbestos mesothelioma?

A. Yes.

Q. He had the first reported series of mesothelioma, which is of the medical literature in 1960, correct?

A. Yes.

Q. The other authors, Drs. Berry, Skidmore and Timbrell, all three are recognized names in the field of asbestos health research?

A. Yes.

Q. Would you agree with me that if a

Gibbs

pulmonologist in Minnesota who was trying to figure out if chrysotile could cause lung cancer mesothelioma and asbestosis in 1974 read this paper it would at least occur to him that chrysotile could cause all three of the conditions based on this paper?

MR. WILL: I object to the form of the question. He's not speculating to the deduced, particularly someone as well-grounded as Dr. Gibbs to put this in context.

MR. BROWNSON: It's possible if he read it that's what his impression would be.

(A recess was taken.)

Q. I'm interested in Figure 9 of this paper, which is at 261, and what this seems to indicate to me that similar doses and over similar lengths of time there is much less chrysotile remaining in the lungs of these rats than there is the amphibole fibers. Is that what this is showing?

A. Yes, it shows if in fact you keep exposing a rat after a certain point in time that you can't find buildup in any fibers in the lung clearing as rapidly as they're going to to

Gibbs

increase plateaus and increase the exposure then it falls back, whereas if you do the same with the amphibole and keep exposing the rat to amphibole the level will keep building up until you stop the exposure then it will be a fall-off but won't fall off in the background level, whereas the amphibole goes to fall-off level.

Q. So what this chart seems to show and rat inhalation experiments showed is that the amphibole continued to build up in the lung tissue over time whereas the chrysotile only seems to go in the certain level and does not continue to accumulate in the tissue?

A. Yes. In other words, there's a much better clearance of the chrysotile.

Q. So can we deduce then that the lung is somehow clearing the chrysotile out of the lung tissue?

A. Yes.

Q. Where that chrysotile is going is not determined by this paper, correct?

A. Correct.

Q. At least according to these data despite the fact that the lung is clearing out

1 Gibbs

2 the chrysotile tissue and much less of it is
3 found in the lung, at least these cancer rates we
4 just looked at are comparable or higher for the
5 chrysotile, correct?

6 A. Well, you will see that there's a
7 difference between the Canadian chrysotile and
8 Rhodesian chrysotile and the Canadian chrysotile
9 is the one that is tremolite-contaminated,
10 containing tremolite, but in the face of it
11 because these are mass doses so these are
12 quantified in terms of a weight, not number. In
13 fact, the amount of chrysotile that the rat is
14 getting is much more in number terms than it is
15 getting crocidolite.

16 Q. Even though they're getting more
17 there's less retained in the lung?

18 A. Yes.

19 Q. More is going in and more is going
20 out?

21 A. Yes.

22 Q. The difference between Rhodesian and
23 Canadian chrysotiles is the Canadian caused four
24 and the Rhodesian caused nine, correct?

25 A. Yes.

Gibbs

Q. The Rhodesian caused more than the Canadian?

A. Yes.

Q. With respect to the lung cancers and the other lung tumors both chrysotiles cause more than the crocidolite and --

MR. WILL: More were found, caused is a different issue.

A. Yes.

Q. By the way, were the adenomas and the adenomatoses reported simply because they were found or were they of interest because these were premalignant tumors?

A. In animal toxicology experiments they always report adenomas and so forth but the question between premalignant is a difficult one and I think there's no great certainty about that, but certainly that if animals are -- if you expose an animal it will get a tumor, it can be a benign tumor.

Q. And benign tumors may or may not be premalignant?

A. Yes.

Q. With respect to the asbestosis found

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Gibbs

in these rats, I'm looking at Table 5, and this is reported as Mean Asbestosis Scores of Sacrificed Rats and there's a rating system here of 1 through 8, it actually is 1, 2, 4, 6, 8, and 8 being "severe," correct?

A. Yes.

Q. I don't want to go through all of these scores but, for example, rats exposed at six months the crocidolite score is reported as 3.7. How does that rate on the scale here?

In other words, those are odd numbers and the scale is even numbers.

A. You said six months crocidolite is --

Q. Crocidolite is 3.7.

A. That means some of the rats were two, some three, some four, so they divided.

Q. So average score?

A. Yes.

Q. So at six months the crocidolite-exposed rats were 3.7 and the Canadian chrysotile is 5.5, correct?

A. Yes.

Q. I guess the table speaks for itself, but at other lengths of exposure the scores are

1 Gibbs

2 between the crocidolite and the different types
3 of chrysotile are either about the same or the
4 chrysotile was higher, correct?

5 A. Yes.

6 Q. And I'm looking at amosite scores, in
7 all cases these are lower than the Rhodesian
8 chrysotile scores though the eight-week is even
9 with the Canadian chrysotile; is that correct?

10 A. Yes, though -- well, with some
11 they're very close.

12 Q. So, again, if I was a physician in
13 Minnesota at the time this paper was published in
14 1974 and was relying on these data for some
15 indication was to whether chrysotile could cause
16 asbestosis, would you agree that a reasonable
17 conclusion would be that, in fact, it can --

18 MR. WILL: Object to the form. In
19 humans, this paper only alone?

20 MR. BROWNSON: This one.

21 MR. WILL: Only forgetting about
22 everything else?

23 A. If you just take this paper in
24 isolation, yes.

25 Q. With respect to animal data

1 Gibbs
2 concerning calidria, I take it you've made no
3 independent survey of the literature, but you
4 have received these articles by Muhle and I think
5 it was Rittenghausen from Mr. Gerson, correct?

6 A. Yes.

7 Q. And I don't want to go through them
8 all but I will show you some other papers
9 concerning animal experiments with calidria.
10 MR. BROWNSON: I just ask you to look
11 at them.

12 Mark this as 15.

13 (Plaintiff's Exhibit 15
14 for identification, document entitled Malignant
15 Mesothelioma Induced by Asbestos and Zeolite in
16 the Mouse Peritoneal Cavity.)

17 Q. Do you have Exhibit 15 in front of
18 you?

19 A. Yes.

20 Q. Have you ever had a chance to review
21 this paper before?

22 A. I haven't seen this before.

23 Q. It's entitled "Malignant Mesothelioma
24 Induced by Asbestos and Zeolite in the Mouse
25 Peritoneal Cavity" by Yasunosuke Suzuki and

1 Gibbs

2 co-author and published by Environmental Research
3 in 1984.

4 A. Yes.

5 Q. First of all, are you familiar with
6 Yasunosuke Suzuki?

7 A. I think so.

8 Q. Do you know him to be a pathologist?

9 A. As I understand there's some question
10 about whether he is a pathologist.

11 Q. Well, in fact, he holds himself up to
12 be a pathologist.

13 A. I believe he does but some
14 qualifications are in question.

15 Q. Whatever his qualifications as a
16 pathologist may be, are you aware he practices at
17 Mount Sinai in New York City?

18 A. I assume he does.

19 Q. Do you know one way or the other?

20 A. No.

21 Q. What are the concerns you've heard
22 raised about his qualifications?

23 A. These are really things I've heard
24 from other pathologists.

25 Q. Which other pathologists?

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Gibbs

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A. I believe Dr. Churg.

3

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Q. So Dr. Churg is of the view that there might be some trouble with Dr. Suzuki's qualifications?

5

6

A. I believe so.

7

8

Q. In 1983 the chief of the Environmental Sciences Laboratory Department of Community Medicine of Mount Sinai Medical Center in New York was Dr. Irvin Selikoff, was it not?

10

11

A. I believe so.

12

13

Q. You, of course, are familiar with Dr. Selikoff?

14

A. Yes.

15

16

Q. Was Dr. Nicholson also on the staff of this group at the time?

17

18

A. I don't know for certain, he might well have been.

19

20

21

22

Q. Is it fair to say that at least in America in 1983 the group at Mount Sinai Medical Center was considered a leading research group in the health effect?

23

24

MR. WILL: I object to this question. How can he know that?

25

MR. BROWNSON: I don't know, see if

Gibbs

he does.

MR. WILL: He's not American, he wasn't practicing medicine in the United States at the time, he hasn't conducted a survey; how does he know?

MR. BROWNSON: Let's ask.

MR. WILL: There's no foundation, it's rank speculation, but go ahead. I object on that basis.

Q. Can you answer the question?

A. They would have been regarded as a well-known research institute.

Q. I realize you do not necessarily agree with many of the conclusions they have come to over the years, that they generally take a more liberal attitude than you do?

MR. GERSON: I object. Not "attitude."

A. I don't know what you quite mean by "liberal," but we would differ.

Q. Was a general proposition that they tend to find more of a relationship between asbestos and health effects than you would?

A. Again, that's a very general

Gibbs

statement. Are you talking specifically about other non-lung related diseases or I'm not quite sure what you talking about, diseases or --

Q. I'm trying to stay generally but let me ask these questions. Would it be fair to say that over the years and certainly in the 1980s the Mount Sinai group took the position that chrysotile asbestos was associated with lung cancer and mesothelioma quite strongly?

A. I believe that to be the case.

Q. Whereas you in contrast were much more conservative on the points?

MR. WILL: Object to the form of the question. What is "conservative"?

Q. I've already described it in detail. You just simply disagree with them on those points?

A. Yes.

Q. If you look at Table 2 of this paper, which is at page 283, it shows a number of things but what it shows is that the mice were injected with a number of different substances, two of which were amosite and chrysotile. One, two and three are amosite and calidria chrysotile is

Gibbs

number six; is that right?

A. Yes.

Q. Without going through all the numbers, the percentages of mice found to have malignant peritoneal tumors was for amosite 26, 23 and 40 depending on the dose of amosite they were injected with?

A. Yes.

Q. And the calidria chrysotile was 25 percent?

A. Yes.

Q. So, again, if you were a physician in Minnesota at the time this paper came out in 1984 and you looked at this paper would you agree with me that you would get some impression that calidria asbestos could cause peritoneal tumors?

MR. WILL: In mice?

MR. BROWNSON: Generally.

MR. WILL: In humans?

MR. BROWNSON: Yes.

A. Well, if one takes the literature one sees intraperitoneal but some, like authors in Germany, say light can cause tumors. If one was a sensible clinician one would read peritoneal

1 Gibbs

2 tumor experiments with great caution.

3 Q. This paper would lead you to the
4 conclusion in the study conducted here in these
5 mice the calidria asbestos caused 25 percent
6 peritoneal tumors?

7 MR. GERSON: You don't mean to lead
8 Dr. Gibbs to this conclusion?

9 A. Well, in the mice under these
10 conditions, yes.

11 Q. Have you seen papers by Dr. Maltoni
12 concerning studies he has done of the rats with
13 respect to intraplural and intraperitoneal
14 asbestos and other asbestos types?

15 A. I've seen papers by Maltoni but I
16 can't remember exactly.

17 Q. Well, if I told you some are such
18 experiments with calidria you wouldn't find that
19 shocking or surprising?

20 A. No.

21 Q. That's the kind of thing you
22 recognize he's done?

23 MR. WILL: Objection. What's that?

24 MR. BROWNSON: I'm trying to finish
25 this up here.

1 Gibbs

2 MR. WILL: Is he going to deny that
3 he did? He doesn't know whether he's done a
4 study on calidria or not, he has done animal
5 studies. Just be careful about the way you
6 phrase the question, that's all.

7 MR. BROWNSON: Let's mark this.

8 (Plaintiff's Exhibit 16
9 for identification, document entitled The
10 Relevance of the Experimental Approach in the
11 Assessment of the Oncogenic Risks From Fibrous
12 and Non-Fibrous Particles.)

13 MR. BROWNSON: What we've marked as
14 Exhibit 16 for identification is a paper by
15 Dr. C. Maltoni and other doctors published in
16 1982 in an Italian medical journal and
17 Dr. Maltoni is designated as being with the
18 Institute of Oncology in Bologna, Italy.

19 Q. First of all, Dr. Gibbs, have you
20 seen this paper before?

21 A. I don't think so.

22 Q. Are you familiar with Dr. Maltoni?

23 A. I've heard of Dr. Maltoni.

24 Q. Do you know him to be an experimental
25 animal inhalation researcher?

Gibbs

A. I believe him to be so.

Q. This particular paper describes some experiments he has done and these appear to be long-term inhalation experiments; is that correct?

A. Did you say inhalation?

Q. I'm sorry, injection.

A. That's peritoneal.

Q. If you look at the second page Table 1 is listed as "Long-term carcinogenicity bioassays of asbestos of different types and origins, by intraperitoneal, intrapleural and subcutaneous injection, on eight weeks old Sprague-Dawley rats."

Do you see that?

A. Yes.

Q. Do you know what he means by "long-term"? Does that mean the rats weren't sacrificed for a long time and let live until they died?

A. I think he means he started the experiments 77 weeks ago and 55 weeks ago, so rather than done over a period of weeks, done over a couple of months.

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Gibbs

Q. Is there any significance to that stringing this out before you kill the animals?

A. If you want to look at production of tumors you'd do long-term experiments rather than short-term.

Q. The longer they live the more likely you are to see tumors; is that fair to say?

A. Yes.

Q. If you go to the table on page 399 what he has done is summarized in columns here the percentage of these rats that got tumors and he's got a number of different things, but among the different fiber types that have been injected in the rats are amosite and calidria California chrysotile, correct?

A. Yes.

Q. What he shows in this table is that the percentage of rats getting tumors from amosite, averages between the male and female is 52.5 percent, correct?

A. Yes.

Q. With respect to the calidria it's 17.5, right?

A. Yes.

MANHATTAN REPORTING CORP.

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Gibbs

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Q. So what we see is you get more tumors with amosite but less with calidria, correct?

A. Yes.

Q. Now this is different than the results we saw in Dr. Wagner's paper with rats where he got more tumors with the Canadian and Rhodesian chrysotile than with amosite?

A. That was by inhalation and injection and they are by different dosages and I think different rats, too.

Q. So what you've got are different papers by different research groups, one in Britain and one in Italy, by rats introducing different asbestos fiber types in different ways and different types, etc. and getting different results?

A. Yes.

Q. In both cases would you agree with me that chrysotile induced different types of tumors in the rats?

A. Yes, the experimental conditions that they used.

Q. So, again, if I am a physician in Minnesota and I read this paper after it came out

1 Gibbs

2 in 1982 would it be fair for me to have the
3 impression that, yes, California calidria
4 asbestos can induce tumors in rats?

5 A. If you solely based it on these
6 experimental papers.

7 Q. If that same physician read the
8 introduction to this paper by Dr. Maltoni
9 wouldn't he be left with the impression that
10 these rat experiments are relevant to determining
11 the carcinogenic risk of asbestos in people?

12 A. Are you saying that they would be of
13 use in trying to asses what happens in humans?

14 Q. Is that a question or an answer?

15 MR. WILL: That was an answer.

16 Q. That's what Dr. Maltoni writes here,
17 in other words?

18 A. Well, he says "Long-term experimental
19 bioassays, in the present situation, may provide
20 different types of important information." I
21 don't think it means that they definitely will.

22 Q. But he also writes, does he not, "In
23 our opinion, there is an urgent and growing need
24 for the oncogenic" -- by that he means cancer,
25 right?

Gibbs

A. Yes.

Q. (continuing) "risk assessment of the inorganic and organic, non-fibrous and fibrous, natural and man-made particles, present in the work-place and in the general human environment."

A. Yes.

Q. And it goes on. Is it that these animal experiments he's doing here can have some bearing on that?

A. Some bearing, not tinge the whole assessment on it.

Q. I take you it you're familiar with the various papers by Dr. John Dement?

A. Well, I've seen Dr. Dement's papers, I don't know that I've seen all of them.

Q. You know that he's written about the mortality of the workers in the chrysotile textile plant in South Carolina?

A. Yes.

Q. Would you agree with me, Dr. Gibbs, a physician in Minnesota who was trying to gain some information pertaining to whether chrysotile can cause lung cancer, reading Dr. Dement he would be left with the impression that chrysotile

1 Gibbs
2 can cause elevated risk of lung cancer?

3 A. Yes.

4 MR. BROWNSON: Let's mark as the next
5 exhibit a paper you've written and I guess this
6 is 17.

7 (Plaintiff's Exhibit 17
8 for identification, document entitled Thorax: The
9 Journal of the British Thoracic Society.)

10 Q. What I've shown you now is Exhibit
11 17, Dr. Gibbs, a paper published in August 1987,
12 Volume 42, No. 8 of The Thorax: The Journal of
13 the British Thoracic Society, entitled "Asbestos
14 induced diffuse pleural fibrosis: pathology and
15 mineralogy."

16 And I take it you're familiar with
17 this paper?

18 A. I recall it.

19 Q. The copy I have is not good because
20 it's cut off, but you're one of the authors, it
21 looks like your name got cut off.

22 No, you're there. Okay, it's getting
23 late in the day. So you're one of the authors
24 and I see Professor Fred Pooley and Dr. Wagner,
25 right?

Gibbs

A. Correct.

Q. We were talking earlier about diffuse pleural fibrosis and would it be fair to say that what this paper is doing is reporting concerning asbestos induced diffuse pleural fibrosis as found by your Medical Research Center?

A. Yes.

Q. Just so we're clear, diffuse pleural fibrosis is an asbestos-related condition but it is not what we referred to as asbestosis; in other words, it's not an interstitial fibrosis in the lung?

A. Well, it can be an asbestosis-related condition. It can occur with other things but in contrast to asbestosis.

Q. It looks like what was done here is that you and your group, Dr. Wagner and Dr. Pooley, report on seven cases of diffuse pleural fibrosis with known asbestos exposure, correct?

A. Yes. Put it this way, this was a history of the asbestos exposure.

Q. Dr. Pooley microscopically looked at tissue, would that be pleural tissue?

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Gibbs

A. No, this was on the lung.

Q. Lung tissue with a view toward determining whether there were asbestos fibers present in the lung tissue, correct?

A. Yes.

Q. As reported in this paper the amount of fibers per gram of dry lung tissue under the electron microscope are reported in the seven cases, correct?

A. Yes.

Q. I'm looking now at page 586, the final paragraph on that page reads, "The cases presented here are clearly related to occupational exposure to asbestos. It is also apparent that they are associated with both a higher total asbestos count than non-occupationally exposed individuals and a different fibre distribution"; is that right?

A. Yes.

Q. One of these cases, case number 6, I'm interested in because that showed a total fiber count of lung tissue of 28.9. I believe that means a million, ten to the sixth?

A. Yes.

MANHATTAN REPORTING CORP.

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Gibbs

Q. 28.9 million fibers per dry gram of lung tissue in this individual of which half was amosite, correct?

A. Yes.

Q. You consider that to be within background level?

A. Yes.

Q. 14.4 are chrysotile, million are chrysotile, correct?

A. Yes.

Q. That would be a high level to find in the lung of a person?

A. No, within the range of background.

Q. So you would consider that to be within the range of background as well?

A. Yes.

Q. 9.6 percent of something like mullite. What's that?

A. That's aluminium silicate, it's not asbestos.

Q. My question here is this: You and your co-authors write that the seven cases presented here that clearly related to occupational exposure to asbestos and yet in this

Gibbs

case number 6 the highest exposure to asbestos I see is to chrysotile and you say that's within background level, so what are we to make of that?

A. I think you can never take one case on it's own, you have to read in context with the whole group and six out of the seven showed raised amphibole levels and the case was, was that Case 6, a person who developed diffuse pulmonary asbestos had relatively low exposure to asbestos which was clearly beyond background controls, or was it the case of diffuse pleural fibrosis occurring for some other reason with a history of exposure, but I don't like drawing conclusions from one case.

Q. Yet at least as I read it you do write that all cases here are related to occupationally-exposed asbestos?

A. Yes, maybe that could have been written better.

Q. So were you able to do that over today you might say but Case 6 maybe is not?

A. I don't know about Case 6.

Q. In any event, would it be fair to say that if I was a physician in Minnesota in

1 Gibbs

2 approximately 1987 and I read this article I
3 would be left with the impression that here are
4 seven cases of diffuse pleural fibrosis all
5 caused by occupationally-related asbestos
6 exposure?

7 A. That would be reasonable conclusion.

8 Q. That, in fact, is what you write in
9 the article?

10 A. Yes.

11 Q. I would note if I looked at this
12 Table 3 that at least one of these cases the
13 predominant asbestos exposure was to chrysotile?

14 A. You can't say predominant exposure
15 was to chrysotile. Yes, there is more chrysotile
16 fibers in the lung than amosite but in normal
17 individuals there is more chrysotile than amosite
18 so you can't say that there's more occupational
19 exposure to chrysotile.

20 Q. But in occupationally-exposed
21 individuals if they're exposed to chrysotile and
22 amosite isn't it your experience to see more
23 amosite than chrysotile?

24 A. Yes.

25 Q. So if we were to believe that in

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1 Gibbs

2 occupationally-exposed individuals, as you write
3 here, wouldn't it be fair to say that we ought to
4 see more amosite in that man number 6 than
5 chrysotile?

6 A. If he had a significant occupation
7 exposure one would expect to see more amosite
8 than that.

9 MR. WILL: Of what you found or
10 amosite than chrysotile?

11 THE WITNESS: Than what we found.

12 Q. Just so I'm clear, in
13 non-occupationally-exposed people in your
14 experience based on these mineralogical assays
15 from Professor Pooley the background level for
16 amosite is what?

17 A. One.

18 Q. One million fibers per dry gram?

19 A. Up to one.

20 Q. Crocidolite?

21 A. Up to one.

22 Q. And tremolite?

23 A. Up to one.

24 Q. And chrysotile?

25 A. Up to 50.

MANHATTAN REPORTING CORP.

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Gibbs

Q. Why in your view do you see up to 50 million chrysotile fibers in non-occupationally-exposed figures that chrysotile is cleared so much more readily from the lung?

A. I don't know.

Q. But nevertheless that's what you see?

A. Yeah, I don't know.

(Discussion off the record.)

Q. One thing I noticed about the different animal injection papers we've reviewed today by Maltoni, Suzuki and the Mellon Institute is that I don't see tremolite reported in any of those. In your experience has tremolite been reported in animal injection studies?

MR. WILL: Do you mean a separate agent or a contaminant of the chrysotile?

MR. BROWNSON: No, let me put it this way.

Q. Have you seen animal injection studies or inhalation where tremolite is actually reported?

A. I think there are some.

Q. Separately?

MANHATTAN REPORTING CORP.

UCAREF00007406

Gibbs

A. I think in studies of different tremolites, both.

Q. Can you cite me to any of those?

A. I think Addison has done some.

Q. First of all, are those in published papers?

A. I don't believe so.

Q. So if we were to look at Dr. Wagner's published animal data and, I guess, animal inhalation studies?

A. I think he did both inhalation and injection studies.

Q. Somewhere in there does he report levels of tremolite in the tissue of those animals?

A. I can't remember.

Q. Do you know if he has done any studies whether by inhalation or injection where he actually has used pure tremolite as one of the things that's put into the animals?

A. I think there are a studies on pure tremolite.

Q. What I'm wondering is this: Have you seen animal studies, whether inhalation or

1 Gibbs

2 injection, published where animals were given
3 chrysotile and researchers had broken out the
4 levels of tremolite in those animals?

5 A. I don't remember seeing anything
6 specifically.

7 Q. Do you recall if any of Wagner's
8 studies would show that?

9 A. There may be one or two.

10 Q. Of the published studies or
11 unpublished?

12 A. I think one or two published studies
13 that may have some data in that.

14 Q. Do you know in that 1974 paper that
15 we were looking at that Dr. Wagner did -- I
16 realize that's 22 years ago and you were a young
17 researcher at the time -- and do you know if any
18 tremolite was found or looked for in the
19 chrysotile-exposed rats?

20 A. I don't think they look at it at that
21 point in time.

22 Q. You have said that in your experience
23 the background level of tremolite in human lungs
24 is about up to one million dry fibers gram of
25 lung tissue?

1 Gibbs

2 A. Generally this is the sort of
3 controls I've seen that Fred Pooley had done on
4 U.S. subjects. Generally we see tremolite in
5 lung tissues much less frequently in the U.K. and
6 back in controls.

7 Q. When you say it's up to a million, do
8 you know what the average number is in American
9 background?

10 A. Average would be a nought point one
11 or nought point two.

12 MR. WILL: That's 100,000 to
13 200,000?

14 THE WITNESS: Yes.

15 Q. In the people who have been
16 occupationally-exposed to crocidolite where
17 Dr. Pooley has done a fiber analysis of the lung
18 tissue is some level of tremolite also found in
19 those lungs?

20 A. One sometimes finds some tremolite in
21 some lungs but it's often not present.

22 Q. So that can range -- well, let's put
23 it this way. In crocidolite-exposed lungs do you
24 tend to see tremolite above background or --

25 A. Just within background. If you take

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1 Gibbs

2 a gas mask, for instance, you don't show much
3 tremolite at all in those but if you were in a
4 factory with fixed usage of the asbestos which
5 included chrysotile and the crocidolite.

6 Q. How about tremolite, do you see any
7 elevated levels of tremolite?

8 MR. WILL: You're talking about
9 somebody who works in a factory, exclusively
10 amosite, amosite-exposed workers?

11 MR. BROWNSON: Yes.

12 Q. Have you seen any tremolite-exposed
13 contaminant in amosite?

14 A. Not to my knowledge.

15 Q. Have you ever seen or has Professor
16 Pooley ever showed the lungs of people exposed
17 only to amosite that had elevated levels of
18 tremolite?

19 A. No.

20 Q. Are you aware of any experimental
21 data to determine if there is tremolite
22 contamination in amosite?

23 A. I'm not aware of animal studies but I
24 would think that amosite samples have been looked
25 at and not found.

MANHATTAN REPORTING CORP.

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Gibbs

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Q. So you're saying that you're sure somebody has looked at samples from amosite from a mineralogical site?

A. I'm not sure, I think they probably have.

Q. Have you seen those data?

A. I've seen data on some various asbestos samples and my impression or recollection is that tremolite is a contaminant of chrysotile but not amosite and crocidolite.

Q. Again, you recognize the tremolite is a contaminant of some chrysotile but not all chrysotile?

A. Yes.

Q. Mr. Goldman reminds me that question I asked you about background levels of different fiber types in the lungs you reported up to one million, but do you know what average is the amosite?

A. Nought point one or nought point two.

Q. Crocidolite?

A. Same.

Q. Chrysotile?

A. Average would be around five.

MANHATTAN REPORTING CORP.

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Gibbs

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Q. Five million?

3

A. Yes.

4

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Q. Do you know or have you been told or learned that this epidemiological study that Ed Ilgren has been talking about about miners and millers is going to include the analysis of any lung tissue for mineral content?

9

10

11

12

A. I think that would be the -- one of the objectives of the study.

Q. As far as you know is that going to be done by Professor Pooley?

13

14

A. I would imagine that would be done by Professor Pooley.

15

16

Q. Do you have any information as to the timing when this might be done?

17

A. No.

18

19

Q. Have you ever visited the miner mill in King City, California?

20

A. No.

21

22

23

Q. When Dr. Pooley went out there to take these samples do you know who he went with on that occasion?

24

A. No.

25

Q. Until you saw this material that you

MANHATTAN REPORTING CORP.

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Gibbs

got from Mr. Gerson were you aware that Pooley had been out there?

A. I knew that Pooley had been out there but I didn't know what the content of the report was.

Q. Do you know in what context that he went out there; in other words, was it only interest or in connection with some work doing a Union Carbide?

A. I don't know the context, I knew he went but we didn't actually discuss what the arrangements were about.

Q. Have you spoken to anyone from the miner mill?

A. No.

Q. There's a Mr. Meyers out there, for example, was a manager. Have you ever spoken to him?

A. No.

Q. Beginning in, I believe, 1971 Union Carbide put labels on the bags of calidria asbestos that said -- they said different things at different times, but essentially warnings that breathing this dust was a health hazard?

1 Gibbs

2 MR. WILL: Objection to the form of
3 the question. I think you misstated the date the
4 warnings appeared. I don't know if it's critical
5 to the question or not.

6 MR. BROWNSON: Let me back up,
7 different question.

8 Q. Have you seen any warning labels
9 placed on the calidria bags from time to time?

10 A. No.

11 Q. Do you know when those labels first
12 appeared on the bags?

13 A. No.

14 Q. At some point in time the labels bore
15 the legend cancer hazard?

16 A. Yes.

17 Q. Do you believe as you sit here that
18 in fact the handling of calidria is a cancer
19 hazard to occupational workplaces?

20 MR. WILL: I object to the preamble
21 of the question. It misstates, I believe, the
22 fact, at least to the fact Union Carbide is
23 concerned. Why don't you just ask him what his
24 idea of a cancer hazard presents?

25 MR. BROWNSON: Because there is a

MANHATTAN REPORTING CORP.

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Gibbs

label.

MR. WILL: No.

MR. BROWNSON: Yes, but I don't want to argue.

Q. I'll ask Trevor's question. Do you recall a label where asbestos would be a cancer hazard to workers handling it?

A. From very prolonged exposures, no.

(Discussion off the record.)

MR. BROWNSON: You may have some questions here. I don't know if you do or don't.

MR. WILL: Couple.

MR. BROWNSON: It would be fine with me if we continued this deposition by telephone, but I don't know if you want to do that or not.

MR. GERSON: Why don't we get back to you on that.

MR. BROWNSON: That's an option, that's fine with me now that we've spent the day talking with Dr. Gibbs and we've met.

MR. GERSON: I throw it out as a possibility. Based on that maybe we can work it out.

MR. GOLDMAN: Yes.

MANHATTAN REPORTING CORP.

UCAREF00007415

1 Gibbs

2 MR. WILL: There's a five-hour time
3 difference between where.

4 MR. GOLDMAN: We can work that out.

5 MR. WILL: Just to indicate on the
6 record that I did talk to Mr. Brownson last
7 Friday indicating that Dr. Gibbs would have to
8 leave at four today and try to start at nine to
9 accommodate and at the time you indicated you
10 thought you'd be able to finish.

11 MR. BROWNSON: I thought so.

12 MR. WILL: We'll obviously get back
13 to you and deal with finishing this one.

14 MR. BROWNSON: I can state for the
15 record I have some more questions to talk to
16 Dr. Gibbs about, but I'm perfectly happy doing it
17 by telephone if that's the way you guys want to
18 do that. If you want to come back, that's fine,
19 too.

20 MR. WILL: Do you have any other
21 documents that you want to address with him,
22 because obviously if we're going to do that...

23 MR. BROWNSON: Should I get them to
24 you ahead of time?

25 MR. WILL: How else can we do it? Do

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1 Gibbs

2 you want to mark them, because he wants to get
3 going.

4 MR. BROWNSON: We'll get them
5 marked.

6 MR. WILL: Okay.

7 MR. BROWNSON: Just for the record,
8 will you retain the exhibits with the original
9 and the way we've been doing it in this case is
10 sending the original transcript to me with the
11 original exhibits and then I get a copy and an
12 ASCII disk and I think he gets a copy too.

13 MR. WILL: We'll talk about what we
14 want but I will want a complete copy of all of
15 the exhibits as well.

16 MR. BROWNSON: So do I.

17 MR. GERSON: Make three complete
18 copies.

19 MR. GOLDMAN: And you can make me a
20 copy too. Can I have one of the mini
21 transcripts.

22 (Time noted: 4:05 p.m.)
23
24

25 _____
ALLEN ROBERT GIBBS

MANHATTAN REPORTING CORP.

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Gibbs

Subscribed and sworn to before me
this _____ day of _____, 1996.

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C E R T I F I C A T E

STATE OF NEW YORK)

: ss.

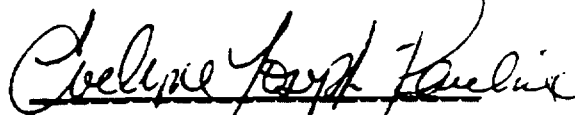
COUNTY OF NEW YORK)

I, EVELYNE JOSEPH-PAULINE, a
Shorthand Reporter and Notary Public within and
for the State of New York, do hereby certify:

That ALLEN ROBERT GIBBS, the witness
whose deposition is hereinbefore set forth, was
duly sworn by me and that such deposition is a
true record of the testimony given by the
witness.

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

IN WITNESS WHEREOF, I have hereunto
set my hand this 23rd day of December 1996.



EVELYNE JOSEPH-PAULINE

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E X H I B I T S

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(Plaintiff's Exhibit 2 for identification, document entitled Asbestos: Effects on health of exposure to asbestos.).....	131	20
(Plaintiff's Exhibit 3 for identification, document entitled Mesothelioma.).....	133	3
(Plaintiff's Exhibit 4 for identification, document entitled Occupational Exposure Limit For Asbestos.).....	136	22
(Plaintiff's Exhibit 5 for identification, one-page memoranda.).....	139	18
(Plaintiff's Exhibit 6 for identification, document.).....	143	3
(Plaintiff's Exhibit 7 for identification, document.).....	143	5
(Plaintiff's Exhibit 8 for identification, document.).....	143	7
(Plaintiff's Exhibit 9 for identification, article from the Volume 13 January to December 1930 issue of Minnesota Medicine.).....	155	4
(Plaintiff's Exhibit 10 for identification, the July 8, 1966 report by the Mellon Institute.).....	158	6
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1			
2	(Plaintiff's Exhibit 12 for		
3	identification, notes from the Mellon		
4	Institute of Industrial Research-		
5	Chemical Hygiene Fellowship.).....	164	25
6	(Plaintiff's Exhibit 13 for		
7	identification, reprint of an article		
8	published in Volume 102, Supplement 5,		
9	October 1994 issue of Environmental		
10	Health Perspective.).....	170	15
11	(Plaintiff's Exhibit 14 for		
12	identification, document entitled The		
13	Effects Of The Inhalation Of Asbestos		
14	In Rats.).....	178	23
15	(Plaintiff's Exhibit 15 for		
16	identification, document entitled		
17	Malignant Mesothelioma Induced by		
18	Asbestos and Zeolite in the Mouse		
19	Peritoneal Cavity.).....	194	12
20	(Plaintiff's Exhibit 16 for		
21	identification, document entitled The		
22	Relevance of the Experimental Approach		
23	in the Assessment of the Oncogenic		
24	Risks From Fibrous and Non-Fibrous		
25	Particles.).....	201	7
	(Plaintiff's Exhibit 17 for		
	identification, document entitled		
	Thorax: The Journal of the British		
	Thoracic Society.).....	207	6