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1 NO. 90-3696
2 NORMAN W. ELLIS, 14TH JUDICIAL DISTRICT COURT
3 ET AL
4 VS. PARISH OF CALCASIEU
5 INSURANCE COMPANY OF
6 NORTH AMERICA, ET AL STATE OF LOUISIANA
7

8 **DEPOSITION OF**

9
10 OTTO WONG, ScD., F.A.CE.

11 **VOLUME I OF II**

12

13 December 11, 1991

14 333 Market Street, 29th Floor

15 San Francisco, California

16

17

18~

19

20 Reported by:

21 JAMES G. ELLIS, CSR

22 Nell McCallum & Associates, Inc,

23 2615 Calder, Suite 111

24 Beaumont, Texas 77702

25 (409) 838-0333

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HELL MC CALLUM & ASSOCIATES, INC.

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1 APPEARANCES:

2 For the Plaintiffs:

3 MR. J. KEITH HYDE

4 of the Law Firm of

5 Herschel L. Hobson

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7 Beaumont, Texas 77701

8

9 For the Defendant Lloyd's of London:

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17 For the Defendant Insurance Company of

18 North America:

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25

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1 For the Defendant CanadianOxy
2 Offshore Products:
3 MR. KENNETH SPEARS
4 of the Law Firm of
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6 Hanchey, Swift & Spears
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9 P.O. Box 910
10 Lake Charles, Louisiana 70602

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14 Deposition of OTTO WONG, ScD., F.A.C.E.,
15 called by Plaintiffs on December 11, 1991, at
16 333 Market Street, 29th Floor, San Francisco,
17 California, at 10:00 a.m., before JAMES G. ELLIS,
18 CSR, Texas No. 3004, in and for the State of
19 Texas, pursuant to notice and the following
20 stipulations:

21 THE REPORTER: For the record, we
22 are here pursuant to what?

23 MR. HYDE: Notice.

24 THE REPORTER: Stipulations?

25 MR. HYDE: According to the
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1 Louisiana Rules of Civil Procedure,
2 reserving objections except as to form
3 and responsiveness.

4 MR. McCALL: I'm sorry?

5 MR. HYDE: According to Louisiana
6 Rules, reserving objections except as to
7 form and responsiveness.

8 MR. McCALL: Okay. Is he going to
9 read and sign, Barbara?

10 MS. ARRAS: He is going to want to
11 read and sign.

12 THE WITNESS: I want to read it.

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1 OTTO WONG, ScD., F.A.C.E.,
2 having been duly sworn, testified as follows,
3 to-wit:

4 (WONG EXHIBIT NOS. 1 AND 2 WERE MARKED)

5 EXAMINATION BY MR. HYDE:

6 Q. Would you please introduce yourself.

7 A. I'm Otto Wong.

8 Q. That's Dr. Wong?

9 A. Yes.

10 Q. Ph.D.?

11 A. Doctor of Science.

12 Q. Dr. Wong, what is your business address?

A. 181 Second Avenue, Suite 628, San Mateo,
California 94401.

15 Q. What is your business phone number?

16 A. (415) 347-7898.

17 Q. How are you presently employed?

18 A. I'm the principal at Applied Health
19 Sciences.

20 Q. How long have you been with that firm?

21 A. One year.

22 Q. How long have you been a principal of
23 that firm?

24 A. One year.

25 Q. What is the background behind the
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7

1 designation 'principal'? What does that basically
2 mean?

3 A. "Principal," meaning I'm the owner of
4 the firm.

5 Q. Dr. Wong, how old a man are you?

6 A. 44.

7 Q. Dr. Wong, you and I have met before.

8 Matter of fact, we met in Houston in November of
9 1991; isn't that correct?

10 A. Yes. When I was 43.

11 Q. Happy birthday. And you were giving a
12 deposition in the Ray Wing case; is that right?

13 A. Yes, sir.

14 Q. And you understand today that you're
15 under oath to tell the truth?

16 A. Yes, sir.

17 Q. It's just like you were in front of the
18 Judge and jury in the Calcasieu Parish area; do
19 you understand that?

20 A. Yes, sir.

21 Q. Have you ever been to Calcasieu Parish,
22 Louisiana?

23 A. No.

24 Q. If you don't understand the question,
25 please don't attempt to answer it. Would you do
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8

1 that?

2 A. I will try.

3 Q. Dr. Wong, what were you hired to do for

4 these defendants in this case?

5 A. I was asked to look at employment

6 history, look at deposition transcripts, and look

7 at epidemiologic studies pertinent to these cases

8 and form an opinion on these cases.

9 Q. Who first contacted you?

10 A. Barbara Arras.

11 Q. When did Ms. Arras contact you?

12 A. Back in -- I believe around March or

13 April of this year.

14 Q. What were you first told by Ms. Arras

15 relative to this case?

16 A. I received a call from her. She told me

17 she was coming out to San Francisco for a meeting

18 and she had several cases and asked me if I would

19 be interested in talking to her.

20 Q. Did she tell you anything else about the

21 cases, the type of diseases involved, anything

22 such as that?

23 A. I don't remember exactly. She might

24 have.

25 Q. Did she tell you benzene was involved?

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9

1 A. I don't remember. Are you talking about
2 the first conversation?

3 Q. Yes.

4 A. I don't remember exactly what she said
5 in the first conversation.

6 Q. When did you agree to be an expert in
7 this lawsuit?

8 A. I think most likely it was after our
9 first meeting in San Francisco.

10 Q. When was that first meeting?.

11 A. Around April.

12 Q. Where in San Francisco did y'all meet?

13 A. I went to her hotel and we sat at the
14 bar for an hour or so and then we went to dinner.

15 Q. Were there any other attorneys with

16 Ms. Arras?

17 A. No.

18 Q. Were any other people with Ms. Arras
19 other than yourself?

20 A. No.

21 Q. Do you know Mr. McCall?

22 A. Yes, I do.

23 Q. When did you first meet Mr. McCall?

24 A. In September.

25 Q. Where did you meet Mr. McCall?

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1 A. At a hotel near -- or not so near -- the
2 Stapleton Airport in Denver.

3 Q. I take it that was a meeting of several
4 experts relative to this lawsuit; is that right?

5 A. The September meeting?

6 Q. Yes.

7 A. I was the only expert.

8 Q. Dr. Irons wasn't there?

9 A. No, he was not.

10 Q. Now long did you meet with Nor. McCall
11 during that meeting?

12 A. The meeting lasted three hours or so.

13 Q. What were you doing in Denver? Just to
14 go to this meeting?

15 A. Just to go to that meeting.

16 Q. Do you know Mr. Spears?

17 A. Yes, sir.

18 Q. When did you first meet Mr. Spears?

19 A. The same meeting.

20 Q. Have you seen or talked to Mr. Spears
21 after that initial meeting in September?

22 A. There was another meeting in the hotel
23 there in Denver last month.

24 Q. Mr. Spears was at that meeting?

25 A. Yes, sir.

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11

1 Q. Was Mr. McCall at that meeting?

2 A. Yes, sir.

3 Q. Was Ms. Arras at that meeting?

4 A. Yes, sir.

5 Q. Was Mr. Hall at that meeting?

6 A. Yes, sir.

7 Q. Was Mr. Hall at the second meeting in

8 Denver? You had two meetings in Denver?

9 A. Correct.

10 Q. Okay. At the first meeting in Denver,

11 was Mr. Hall present at that meeting?

12 A. No.

13 Q. Was Mr. Belfour present at any of these

14 meetings?

15 A. No. Who is he?

16 Q. A lawyer.

17 Now, in your first meeting with

18 Ms. Arras in San Francisco, did Ms. Arras give you

19 any documents at that point in time?

20 A. No.

21 Q. In your meeting in Denver with

22 Ms. Arras, Mr. Hall and Mr. Spears and Mr. McCall,

23 were you given any documents at that meeting?

24 A. I remember receiving a map from

25 Ms. Arras A big map.

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1 Q. A plot plan of the plant?

2 A. Right.

3 Q. Did you get anything else?

4 A. That's all I can remember.

5 Q. And the third meeting in Denver, when

6 was that? It was the third meeting that you had

7 with the various attorneys in this lawsuit. The

8 second meeting in Denver, when was that meeting?

9 A. That was September -

10 MR. McCALL: Wait. Keith -

11 A. September -

12 MR. McCALL: I'm not sure I

13 understand your question.

14 BY MR. HYDE:

15 Q. Your first meeting in Denver with all

16 the attorneys, when was that meeting held?

17 A. Let me look at my notes.

18 Q. Sure.

19 A. The first meeting in Denver was on

20 September the 19th, I believe.

21 Q. What did all of y'all talk about during

22 that meeting of September 19th?

23 MR. McCALL: At this point,

24 Dr. Wong, I'm going to object. Keith,

25 as to your getting into an area -- you're

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1 getting into an area of communication
2 between attorneys and the expert insofar
3 as may involve work product. I'm going
4 to instruct Dr. Wong not to answer
5 unless we know what particular -- you
6 know, in general, if you want to ask
7 what was talked about, what things were
8 discussed. But if you want to discuss
9 things that involve attorney work
10 product between expert and witness, I
11 object to that.

12 MR. HYDE: I am going to have to
13 call Bill, then, because I'm uncertain
14 as to whether you have any privilege
15 between you and your experts.

16 MR. McCALL: If that is not the
17 case, then we have things that Nancy
18 Culver has done for you and prepared for
19 you for

purposes of this litigation that
20 are also not privileged that we have
21 talked about.

22 MR. HYDE: Let me call him.

23 (DISCUSSION OFF THE RECORD)

24 MR. HYDE: I'll get the court
25 reporter to mark that question. We'll
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14

1 come back to it.

2 BY MR. HYDE:

3 Q. During your meeting -

4 (BRIEF INTERRUPTION)

5 BY MR. HYDE:

6 Q. Dr. Wong, what were you told out at the
7 meeting in Denver on September 19th that assisted
8 you in the formation of your opinions relative to
9 this lawsuit?

10 MR. McCALL: Counsel by that, are
11 you asking what was he told in the way
12 of facts or documents? I think you can
13 ask about that. But if your question is
14 to the extent that it gets into attorney
15 work product, trial product, trial
16 strategies, I object to it. If you want
17 to ask him about facts and documents
18 that he may have relied upon in his
19 opinion, I don't have a problem with
20 that.

21 MR. HYDE: I'm going to leave it
22 the way I asked it. If you're going to
23 instruct him not to answer, then -

24 MR. McCALL: I would instruct him
25 not to answer the question. I object to
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1 the form of the question on the basis
2 that it's too broad, and the scope of
3 the question goes into -- by its very
4 nature, it's broadly worded and goes
5 into areas that would consist of
6 attorney work product and may involve
7 discussions between attorneys and
8 experts.

9 BY MR. HYDE:

10 Q. Dr. Wong, are you going to answer my
11 question?

12 A. No.

13 Q. You're not going to answer my question
14 based on advice of Mr. McCall; is that correct?

15 A. Yes, sir.

16 MR. HYDE: For the record, then,
17 we're going to probably seek a Motion to
18 Compel on this point and probably seek
19 costs for having to come out and redepose
20 Mr. Wong.

21 MR. McCALL: That will be fine.

22 Court reporter, while we're on the
23 record, we're also going to make -- put
24 Counsel on notice that should Counsel
25 pursue this, we will also seek to pursue
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16

1 the same information from your experts,
2 particularly the documents that were
3 discussed in the Nancy Culver deposition
4 which Plaintiff's counsel took work
5 product privilege on and instructed us
6 not to ask about.

7 Let's proceed.

8 BY MR. HYDE:

9 Q. What did you do on September 19th with
10 these attorneys?

11 A. As I said, we had a meeting.

12 Q. Well, what did you meet about?

13 A. We talked about the cases. I gave a
14 summary of some of the papers that I have been
15 reviewing.

16 Q. Was that summary in the form of a
17 presentation?

18 A. No.

19 Q. Was it a written summary?

20 A. No.

21 Q. You did this all orally by memory; is
22 that correct?

23 A. Right.

24 Q. You had no written notes or anything
25 such as that to assist you in the summary that you
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17

1 presented to these attorneys?

2 A. That's right.

3 Q. Then you later met with these same

4 attorneys in Denver; is that correct?

5 A. Yes, sir.

6 Q. What was the date of that meeting?

7 A. It was November 21st.

8 Q. And as it concerns this lawsuit and your

9 opinions in this lawsuit, what were you told by

10 these attorneys that form a basis or support your

11 opinions relative to this matter?

12 MR. McCALL: Counsel, let me,

13 again, enter an objection to the

14 question, to the form of the question,

15 as to its vagueness and broadness

16 insofar as it may impinge on attorney

17 work product between expert and

18 witness.

19 Dr. Wong, to the extent that that

20 does, I would instruct you not to answer

21 it. I think you can certainly answer

22 Mr. Hyde's question as to any facts or

23 documents that you were presented with

24 that you may have considered in the

25 . formulation of any opinions in this

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18

1 case. To that extent -

2 MS. ARRAS: I'd like to join in

3 Mr. McCall's motion -- both the prior

4 objection and this objection, also.

5 BY MR. HYDE:

6 Q. Are you going to answer my question,

7 Dr. Wong?

8 A. No.

9 Q. Are you not going to answer my question

10 based on the advice of Ms. Arras and Mr. McCall?

11 A. Yes, sir.

12 MR. McCALL: Counsel, if you want

13 to rephrase it and ask him about facts

14 or documents that he may have been

15 presented with at that meeting that he

16 may have used in relying upon or

17 formulating any opinions, I'm

18 certainly -- you can ask that question

19 and go into it. I'm in no way

20 prohibiting you from doing that. The

21 scope of your question broadly

22 encompasses an area that constitute work

23 product between an expert and a witness,

24 and that's what I don't want to get into

25 with the -- the nature of the question as

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1 it is worded is too broad and gets into
2 those areas.

3 BY MR. HYDE:

4 Q. Were you told anything at that meeting
5 that you understand to be privileged or work
6 product of these attorneys?

7 MS. ARRAS: I'm going to object.

8 It calls for a legal conclusion on the
9 part of the expert witness.

10 MR. HYDE: He can't answer legal
11 questions at all?

12 MS. ARRAS: He's not an attorney.

13 MR. McCALL: No. He's not an
14 attorney.

15 MS. ARRAS: We're not presenting
16 him as an expert in legal matters.

17 MR. McCALL: The determination,
18 Counsel, of what constitutes a legal
19 privilege is up to the Court and up to
20 the attorneys to argue that point.

21 BY MR. HYDE:

22 Q. What facts were you told at the meeting
23 of November 21st relative to this lawsuit?

24 A. A description of the facility, some of
25 the employment histories of the Plaintiffs.
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20

1 That's pretty much the facts of the discussion.

2 Q. Which of the attorneys gave you a
3 description of the facility?

4 A. I think all of them talked at different
5 times or talked at the same time.

6 Q. Was there a chemical engineer or process
7 engineer also at that meeting that explained to
8 you the chemical processes involved at the
9 facility where the Plaintiffs worked?

10 A. Which meeting are you talking about?

11 Q. The November 21st meeting.

12 A. An engineer, did you say?

13 Q. Yeah.

14 A. No.

15 Q. Who else was present at the November
16 21st meeting?

17 A. Ben Thomas, Richard Irons, Ralph
18 Wallerstein. There was another oncologist from
19 Louisiana. I don't remember his name.

20 MR. McCALL: Dr. Bickers.

21 BY MR. HYDE:

22 Q. Anybody else present?

23 A. I think we mentioned Stephen Hall
24 before.

25 Q. At your September 19th meeting, were
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21

1 there any other experts in this lawsuit at that
2 meeting?

3 A. The second -

4 Q. The first Denver meeting.

5 A. The first one? I want to make a
6 correction.

7 Q. Okay.

8 A. Mr. Belfour was at that meeting.

9 Q. Mr. Belfour was at which meeting?

10 A. The first -- September 19th.meeting.

11 MR. McCALL: The second meeting.

12 Counsel, for the record -

13 THE WITNESS: I'm getting confused.

14 MR. McCALL: -- Mr. Belfour and

15 Mr. Hack were present at the November
16 meeting.

17 MR. HYDE: At the November meeting?

18 MR. McCALL: Correct.

19 BY MR. HYDE:

20 Q. Dr. Wong, I think you have indicated you

21 might -- you have a little confusion right now.

22 And I would like to stop for a second, and let's
23 huddle up here and see if we can straighten this
24 out.

25 On September 19th you had a meeting in
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22

1 Denver. And let me see if I have this right. Ken
2 Spears, Bill McCall, Barbara Arras, Steve Hall,
3 Greg Belfour -

4 MR. SPEARS: (Shakes head)

5 MR. HYDE: No?

6 A. No.

7 BY MR. HYDE:

8 Q. So, these were November.

9 MR. HYDE: Because you just told
10 me September, I thought. Dial you have
11 it wrong?

12 MR. McCALL: If I used the date
13 September on my last discourse, that
14 meant November. I thought I said
15 "November."

16 Sorry, Counsel, if I used the
17 wrong -- I thought I said "November."

18 BY MR. HYDE:

19 Q. Let's just go, who was present at the
20 September 19th meeting, which was the second
21 meeting with Barbara Arras and the first meeting
22 with all of the attorneys in general in this case,
23 except for the Plaintiffs' attorneys.

24 At that meeting, Ken Spears, Bill
25 McCall, Barbara Arras, Stephen Hall -
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23

1 A. No, Stephen Hall wasn't there.

2 Q. Stephen Hall was not present at that
3 meeting?

4 A. Right

5 Q. Just the three attorneys in this room
6 were present at your September 19th meeting; is
7 that correct?

8 A. Right.

9 Q. Were there any other experts present at
10 that meeting on September 19th in Denver?

11 A. No.

12 Q. Do you know whether they met with any
13 experts before they met with you on September 19th?

14 A. I don't know.

15 Q. Did you hear that, that they had met
16 with other experts on September -

17 A. I did not hear anything.

18 Q. Now on November 21st -- let's see if we
19 can get the cast correct here -- Ken Spears, Bill
20 McCall, Barbara Arras, Stephen Hall, Greg Belfour,
21 and Ed Hack were present. Those were the
22 attorneys, is that right -

23 A. Right.

24 Q. -- for the November 21st meeting?

25 A. Right

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24

1 Q. Also present on the November 21st
2 meeting was Ben Thomas, Richard Irons, Ralph
3 Wallerstein, Dr. Bickers, and yourself?

4 A. Yes, sir.

5 Q. Now, where was this meeting held in
6 Denver, what hotel?

7 A. Stoffer Hotel.

8 Q. How long did this meeting last?

9 A. We started around 9:00 o'clock and
10 finished about 2:00 or -- around 3:00 o'clock or
11 so.

12 Q. Did Ben Thomas give a presentation
13 during that meeting on November 21st?

14 A. A presentation?

15 Q. Yes.

16 A. I don't think so.

17 Q. Did Dr. Irons give a presentation during
18 the meeting on November 21st?

19 A. No, sir.

20 Q. Did Dr. Wallerstein give a presentation
21 on November 21st?

22 A. No, sir.

23 Q. Did Dr. Bickers give a presentation on
24 November 21st in that meeting?

25 A. No, sir.

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25

1 Q. Basically it was a roundtable
2 presentation, and it was just a discussion of the
3 facts associated with this lawsuit; is that
4 correct?

5 A. It was kind of an unstructured
6 discussion.

7 Q. As I said it, the attorneys basically
8 gave you a description of the facility as it
9 pertains to the Cities Service refinery and the
10 associated PCI complex; is that correct?

11 A. Yes, sir.

12 Q. Which of the attorneys gave you the
13 presentation concerning the employment history of
14 the Plaintiffs?

15 A. I think they all did.

16 Q. Now, since November 21st, have you had
17 any meetings with any of the attorneys in this
18 room or Mr. Belfour or Mr. Hall?

19 A. No.

20 Q. Have you had telephone conversations
21 with any of those individuals since November 21st?

22 A. I don't think so.

23 Q. Other than the phone call just to be
24 here today?

25 MR McCALL: Counsel, I'm sure
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26

1 that -- Dr. Wong -- I don't know that
2 I've spoken to him, but I'm sure there
3 were phone calls made between offices
4 concerning the deposition. Wouldn't -
5 Ms. Arras, wouldn't that be -

6 MS. ARRAS: Oh, yes.

7 THE WITNESS: I'm not so sure I
8 talked to you -

9 MR. McCALL: Right.

10 THE WITNESS: -- to Barbara, per
11 se.

12 MR. McCALL: Right.

13 A. I think Barbara talked to my office and
14 reminded me to show up at the deposition. But I
15 don't remember any conversation.

16 BY MR. HYDE:

17 Q. Did you write a report in this case?

18 A. A report?

19 Q. Yes.

20 A. In these cases?

21 Q. Yes.

22 A. No.

23 Q. Now, you're not
going to testify in the

24 area of industrial hygiene; is that correct?

25 A. Heaven forbid. I am not an industrial
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27

1 hygienist.

2 Q. You're not going to give -- be an expert
3 in this case as it relates to safety and warnings;
4 is that right?

5 A. No, sir.

6 Q. Okay. Well, I said that wrong. I'm
7 sorry.

8 A. Double negative.

9 Q. Yes. Are you going to be an expert in
10 the area of safety and warnings relative to this
11 matter?

12 . A. No, I'm not.

13 Q. Are you going to be an expert in this
14 lawsuit relative to chemistry or process
15 engineering?

16 A. No, sir.

17 Q. Are you going to render any expert
18 opinions in this matter relative to toxicology?

19 A. No, sir.

20 Q. Are you going to render any opinions in
21 this matter relative to emission modeling,
22 fugitive emissions, or any of those kinds of
23 subjects?

24 A. No, sir.

25 Q. Are you going to render any opinions in
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28

1 this matter as it concerns hematology?

2 A. No, sir.

3 Q. Are you going to render any opinions in

4 this matter relative to oncology?

5 A. No, sir.

6 Q. Are you going to render any opinions in

7 this matter as it relates to management functions

8 or business management?

9 A. No.

10 MR. McCALL: Counsel, let me ask

11 you to -- I'm going to object to the

12 form of the question as vague without

13 further clarification.

14 BY MR. HYDE:

15 Q. Are you going to render any opinions as

16 to what the managers at the Cities Service

17 refinery, or PCI complex, what their

18 responsibilities were in general to the workers at

19 that plant and the operation of that plant?

20 A. No, sir.

21 Q. That's what I meant by an expert in

22 business management or just management in

23 general. You're not going to render that type of

24 an opinion?

25 A. No.

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29

1 Q. Have you been given adequate time in
2 this litigation matter to adequately research all
3 the topics and form your opinion?

4 A. Yes, sir.

5 Q. So, as we sit here today, you don't need
6 any additional time, is that correct, in the
7 formation of your opinion?

8 MR. McCALL: Counsel, let me say
9 for the record that we may have
10 additional tasks for Dr. Wong to
11 perform, just like your experts have
12 done so; and we reserve the right to do
13 that. But I think he's here today and
14 has an opinion.

15 BY MR. HYDE:

16 Q. I guess what I'm asking, you haven't
17 been rushed to come up with this opinion; you've
18 had plenty of time to do your research; is that
19 right?

20 A. Yes, sir.

21 Q. Do you know the names of the Defendants
22 who are involved in this lawsuit?

23 A. Yes, sir.

24 Q. Would you please tell me who they are?

25 A. Let me look at my notes.

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1 MR. McCALL: Defendants or
2 Plaintiffs?

3 MR. HYDE: Defendants.

4 A. Oh, Defendants. I'm sorry. Good
5 question. I have been provided with that
6 information. I might have left it in my office.

7 BY MR. HYDE:

8 Q. You understand that Oxy, or CanadianOxy,
9 is one of the Defendants in this lawsuit based on
10 its liabilities for the Cities Service refinery;
11 do you understand that?

12 A. No, I don't.

13 Q. And do you understand that also
14 Ms. Arras and Mr. McCall work for insurance
15 companies who are defending this lawsuit; do you
16 understand that?

17 A. Yes, sir.

18 Q. Have you ever been employed directly by
19 the Insurance Company of North America before?

20 A. No.

21 Q. Have you ever consulted on behalf of the
22 Insurance Company of North America before?

23 A. No.

24 Q. Have you ever testified as an expert on
25 behalf of the Insurance Company of North America?

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1 A. No.

2 Q. Have you ever testified on behalf of
3 Lloyd's Insurance?

4 A. No.

5 Q. Have you ever been an expert to Lloyd's?

6 A. No. Other than this case?

7 Q. Yeah. All this is other than this
8 case.

9 Have you ever testified on behalf of

10 Cities Service refining or any of the Oxy
11 companies before, other than this case and the
12 Ray Wing case?

13 A. I don't know for sure. They could have
14 been one of the many, many defendants in some of
15 the cases that I worked on.

16 Q. If you would, take a second to think
17 back and see if you can recall either the name
18 Occidental Petroleum, Oxy Chem, Oxy Petrochemicals,
19 CanadianOxy, Oxy U.S.A. Do any of those names
20 sound familiar to you as it concerns any of your
21 past litigation work?

22 A. It doesn't ring a bell.

23 Q. And what is your understanding of the
24 facilities where the Plaintiffs worked, who are
25 the Plaintiffs in this lawsuit?

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1 A. Can you be more specific than that?

2 Q. Sure. Where did Mr. Lilly work?

3 A. You mean the exact location?

4 Q. No. Just the plant.

5 A. Cities Service complex in Lake Charles.

6 Q. Did the rest of the Plaintiffs also work
7 in that same facility? Is that right?

8 A. Right.

9 Q. Have you ever worked with Ms. Arras
10 before on any litigation matter? .

11 A. No, sir.

12 Q. Have you ever worked with Mr. McCall in
13 any litigation matter?

14 A. No.

15 Q. Have you ever worked with Mr. Spears in
16 any litigation matter?

17 A. No.

18 Q. Have you ever worked with Mr. Belfour in
19 any litigation matter?

20

21 MR. HYDE: Off the record.

22 (DISCUSSION OFF THE RECORD)

23 MR. McCALL: We were on Belfour.

24 BY MR. HYDE:

25 Q. Have you ever-worked with Mr. Stephen
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1 Hall in any litigation matters?

2 A. No.

3 Q. Did Ms. Arras tell you how she came to
4 learn about you as an expert?

5 A. I don't know.

6 Q. You don't recall how she learned about
7 you?

8 A. I don't.

9 Q. Well, seeing as how you never worked for
10 any of these people before, have you ever declined
11 to work for any of those attorneys that I have
12 named; in other words, you refused to take a case
13 that they had?

14 A. Can you repeat your question?

15 Q. I sure will.

16 You indicated that you have never worked
17 with any of the attorneys that we have previously
18 mentioned. I don't think I need to go through all
19 the names again. But my question is, have they
20 ever asked you to participate as an expert witness
21 and then you declined to work with them because of
22 either the facts of the case or you were too busy
23 or something such as that?

24 A. No.

25 Q. For the record, we've marked the notice

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1 to take deposition by video, which we're not
2 taking by video today; but that's been marked as
3 Deposition Exhibit 1. Did you see this, Dr. Wong,
4 just the notice?

5 A. I don't think I've seen this one.

6 Q. Well, did you see the subpoena duces
7 tecum relative to your deposition today, which we
8 have had marked as Deposition Exhibit No. 2? Did
9 you see this document?

10 A. Yes.

11 Q. When did you receive this document?

12 A. December 9th.

13 Q. Who sent it to you?

14 A. Ms. Arras.

15 Q. Did you discuss this document,
16 Deposition Exhibit No. 2, with Ms. Arras?

17 A. No. Her office faxed a copy of that
18 letter to me.

19 Q. Did you discuss Deposition Exhibit
20 No. 2 -- the request for documents there, did you
21 discuss that with any of the attorneys associated
22 with this lawsuit?

23 A. I did put together all the documents
24 and -- we had a meeting yesterday and we go through
25 the documents, make sure we have all the
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1 documents.

2 Q. So, you did discuss this request with
3 the attorneys; that's correct?

4 A. Yes, that is correct.

5 MR. McCALL: To the extent your
6 question refers to all of us, I was not
7 here yesterday. To let the record be
8 clear.

9 BY MR. HYDE:

10 Q. So, you met with Ms. Arras and

11 Mr. Spears yesterday?

12 A. Yes, sir.

13 Q. Y'all went through this request for
14 documents, and you showed them what documents you
15 were going to bring with you today?

16 A. Right.

17 Q. Did you bring any documents to your
18 meeting yesterday that they told you not to bring
19 today?

20 A. No, sir.

21 MR. HYDE: Off the record.

22 (DISCUSSION OFF THE RECORD)

23 BY MR. HYDE:

24 Q. Dr. Wong, as it concerns Deposition
25 Exhibit No. 2, which is a subpoena duces tecum
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1 which requests you to bring certain documents, I
2 would like to go over each one of the requests
3 with you at this time. Are you prepared to do
4 that?

5 A. Yes, sir.

6 Q. Request No. 1 -

7 MS. ARRAS: I would like to just
8 go on the record at this point and say
9 we are voluntarily complying with the
10 subpoena duces tecum because it was
11 never, according to the first paragraph
12 of the letter addressed to Mr. Andrews,
13 the Clerk of Courts for the 14th JDC in
14 Lake Charles, I was to be served with a
15 subpoena to bring these records. I was
16 never served with a subpoena, nor was I
17 provided with a copy of that letter
18 directly from Plaintiff's counsel. It
19 was sent to me by another attorney in
20 this case. And I just want the record
21 to reflect that we're complying
22 voluntarily with the notice of subpoena.

23 MR. HYDE: Will there be any
24 documents that you will be withholding,
25 even though you're voluntarily
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1 complying?

2 MR. McCALL: I don't think so.

3 MS. ARRAS: I don't believe so.

4 MR. McCALL: The argument will

5 come if you make a move to hold us in

6 contempt or something. We just never

7 got served with it. We're here today to

8 try and give you all the documents,

9 Keith.

10 BY MR. HYDE:

11 Q. Dr. Wong, we've asked you to bring

12 today, based on No. 1 of this subpoena duces

13 tecum, any and all correspondence, pleadings,

14 medical and/or scientific articles, depositions,

15 medical records, written instructions,

16 photographs, videotapes, audio tapes, and/or

17 documents of any kind which Dr. Otto Wong has

18 received from Defendants, Defendants' Counsel, or

19 any employee, agent, or representative of

20 Defendants' counsel in this case.

21 What did you bring with you that is

22 responsive to Request No. 1?

23 A. I have a couple of folders that would

24 fit into the first three categories.

25 Q. Okay. I'm going to go ahead and read

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1 No. 2 and 3, then.

2 A. Okay.

3 Q. No. 2 requests that you bring any and
4 all notes, memoranda, correspondence, reports,
5 written opinions, and/or documents of any kind
6 which you have provided to Defendants, Defendants'
7 counsel, or any agent, employee, or representative
8 of Defendants' counsel in this case.

9 And No. 3 request you to bring any and
10 all notes, memoranda, reports, correspondence,
11 summaries, and/or documents of any kind which
12 evidence or reflect your factual observations
13 and/or expert opinions in this case.

14 And what do you have that is responsive
15 to Request No. 1, 2, and 3?

16 A. Here they are (tendering).

17 MR. HYDE: James, what I'd like to
18 do is have these two folders marked as
19 Exhibits 3A and 3B.

20 (WONG EXHIBIT NOS. 3A AND 3B WERE MARKED)

21 (DISCUSSION OFF THE RECORD)

22 BY MR. HYDE:

23 Q. Dr. Wong, all documents that you have as
24 it concerns Request Nos. 1, 2, and 3 on the
25 subpoena duces tecum, which is Deposition-Exhibit
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1 No. 2, those documents are all contained in Wong
2 Deposition Exhibits 3A and 3B; is that correct?

3 A. Yes, sir.

4 Q. No. 4 of the subpoena duces tecum
5 requests you to bring copies of any and all
6 medical or scientific books, articles, abstracts,
7 or documents of any kind which form the basis in
8 whole or in part for any opinions you may render
9 in this case. What do you have that is responsive
10 to Request No. 4 of the subpoena? .

11 A. I have a number of folders, studies that
12 I am going to rely on. And this would most likely
13 fit your categories 4, 5, 6, and 8.

14 Q. Okay. So, I would like to go ahead and
15 put on the record Nos. 5, 6, and 8, which are
16 copies of any and all medical or scientific books,
17 articles, abstracts, or documents of any kind
18 which directly or indirectly demonstrate a causal
19 association between any chemical agent exposure
20 and the development of non-Hodgkin's lymphoma;
21 that's No. 5.

22 No. 6 is copies of any and all medical
23 or scientific books, articles, abstracts, or
24 documents of any kind which, in your opinion,
25 demonstrate the Plaintiffs' level of exposure to
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1 any chemical agent, including but not limited to
2 benzene, 1,3-butadiene, and/or ethylene oxide.

3 And No. 8 is your most recent
4 bibliography of studies involving non-Hodgkin's
5 lymphoma.

6 Could I see what documents you have
7 responsive relative to those requests?

8 A. (Tendering)

9 MR. HYDE: James, I want to go
10 ahead and mark this as No. 4.

11 (WONG EXHIBIT NØ. 4 WAS MARKED)

12 BY MR. HYDE:

13 Q. Are all the documents that you have
14 responsive to Request No. 4, 5, 6, and 8 of the
15 subpoena duces tecum contained in what's now been
16 marked as Wong Deposition Exhibit No. 4?

17 A. Yes, sir.

18 Q. No. 7 requests you to bring your most
19 recent curriculum vitae; is that right?

20 A. I have it here (tendering).

21 MR. HYDE: Let's go ahead and mark
22 that.

23 (WONG EXHIBIT NØ. 5 WAS MARKED)

24 BY MR. HYDE:

25 Q. Would you please identify what's been
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1 marked as Deposition Exhibit No. 5?

2 A. My CV.

3 Q. Is this an up-to-date CV?

4 A. Most recent one, yes.

5 Q. Is there anything you need to add to
6 this CV that would make it more accurate?

7 A. No.

8 Q. When was the last time you updated your
9 CV, or what is the date of this CV (tendering)?

10 A. Probably about three or four months old.

11 Q. We have already covered No. 8. Now, as
12 it pertains to Request No. 9 of the subpoena duces
13 tecum, we requested you to bring your entire file
14 concerning this case and your work on this case
15 including any retainer agreement you have with the
16 Defendants or Defendants' counsel. What do you
17 have relative to that?

18 A. This is a letter agreement (tendering).

19 MR. HYDE: Mark that, please,

20 No. 6.

21 (WONG EXHIBIT NO. 6 WAS MARKED)

22 BY MR. HYDE:

23 Q. Let me see if I can help you out here.

24 Now, as it relates to all the exhibits, this also
25 represents your file; is that correct?

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1 A. That's right.

2 Q. Would you please identify what's been
3 marked as Deposition Exhibit No. 6, please.

4 A. It's the letter agreement between the
5 Applied Health Sciences and Ms. Arras' law firm.

6 Q. Do you have an agreement with Mr. Spears
7 or Mr. McCall, like the one you have with Ms. Arras?

8 A. No, sir.

9 Q. No. 10 requests you to bring any and all
10 documents which evidence or reflect the amount of
11 time and expense you have incurred in relation to
12 your work in this case. What do you have
13 responsive to that request?

14 A. I have all the invoices that I sent to
15 Ms. Arras on this -- four or five cases. We
16 started with five case. The Crosby case was later
17 on taken out from this group.

18 Q. What you have handed me is also
19 responsive to Request No. 11, which requests you
20 to bring any and all documents of any kind which
21 evidence or reflect payment made to you by or on
22 behalf of Defendants or Defendants' counsel in
23 this case; is that correct?

24 A. Well, those are invoices. I think all
25. the invoices have been paid except maybe the last
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1 one.

2 MR. HYDE: Would you go ahead and
3 mark this, please.

4 (WONG EXHIBIT NO. 7 WAS MARKED)

5 BY MR. HYDE:

6 Q. Dr. Wong, would you please identify
7 what's been marked as Deposition Exhibit No. 7?

8 A. These are copies of invoices on these
9 cases.

10 Q. These are copies of invoices from your
11 company, Applied Health Sciences, to Ms. Arras; is
12 that correct?

13 A. Yes, sir.

14 Q. All the expenses or charges on these
15 invoices reflect your work in the Ellis, et al,
16 case; is that right?

17 A. In those four -- well, we started with
18 five cases, as I- said. Later on we have four
19 cases.

20 Q. These invoices reflect total charges by
21 you and your firm to Ms. Arras from 33 to \$35,000;
22 is that right?

23 A. Around that area.

24 MS. ARRAS: I'd like to reflect
25 the fact that they're not bills
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1 submitted to me personally. They're
2 submitted to my client.

3 BY MR. HYDE:

4 Q. Dr. Wong, I would like to start with
5 your past work history as it pertains to your
6 professional work history. From 1981 to 1990 you
7 indicate that you were executive vice-president,
8 chief epidemiologist or biostatistician with ENSR;
9 is that correct?

10 A. Yes, sir. .

11 Q. What was the time frame, respective time
12 frames, that you were a biostatistician with ENSR?

13 A. Can I have the question back?

14 Q. Sure. It appeared that there are three
15 job titles that you held with ENSR; is that
16 correct?

17 A. I thought two.

18 Q. Chief executive -- excuse me, executive
19 vice-president and chief epidemiologist, is that
20 one job title?

21 A. Can I take a look at it?

22 Q. Sure can. Do you have one over there?

23 A. The two titles are executive
24 vice-president as one. The second one is chief
25 epidemiologist/biostatistician
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1 Q. Can you tell me what the respective time
2 periods were that you were the chief
3 epidemiologist/ biostatistician? When were you in
4 that position?

5 A. For the entire period.

6 Q. At what point in time did you then
7 become executive vice-president for ENSR?

8 A. For the entire period. I had two titles
9 at the same time.

10 Q. Formerly ENSR was Environmental Health
11 Associates; is that right?

12 A. I think we should be clear. When you
13 say ENSR, I take it that you mean ENSR Health
14 Sciences.

15 Q. Right. I do.

16 A. Okay. If that's the case, then it's
17 true; yes.

18 Q. Who were the owners of Environmental
19 Health Associates?

20 A. "Who were"? Did you say "were"?

21 Q. Yes.

22 A. Past tense?

23 Q. Well, are they still the owners of
24 Environmental Health Associates?

25 A. No.

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1 Q. Who were the owners of Environmental
2 Health Associates when it was called Environmental
3 Health Associates?

4 A. Dr. Morgan -- Robert Morgan, Dr. Don
5 Whorton, W-h-o-r-t-o-n, and myself.

6 Q. Was the interest in that company equal?

7 Each one of y'all-l owned a third?

8 A. Yes, sir.

9 Q. Where is Dr. Morgan now located?

10 A. He has an office in Redwood .City,
11 California, in the Bay area.

12 Q. Who does he work for?

13 A. He has his own company.

14 Q. Dr. Whorton, where is he now located?

15 A. He's still at ENSR Health Sciences in
16 'Alameda.

17 Q. With ENSR Health Sciences, or
18 Environmental Health Associates, what was your
19 principal job duties as the executive
20 vice-president?

21 A. Basically I was responsible for running
22 the epidemiologic program, also participate in
23 administration, business development of the
24 company. Those are the things that I can think of
25 now.

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1 Q. As it concerns business development,
2 what type of activities were you involved in as it
3 concerns business development with ENSR Health
4 Sciences or Environmental Health Associates?

5 A. When I say "business development" we
6 really mean to have professional exposure such as
7 giving talks or papers on projects, technical
8 issues, writing papers in journals, that kind of
9 thing.

10 Q. Did Environmental Health Associates have
11 a brochure or a pamphlet?

12 A. At different times, yes, we had some
13 kind of booklet on capabilities that we had.

14 Q. What were your administrative duties as
15 executive vice-president with Environmental Health
16 Associates, or ENSR Health Sciences?

17 A. Good question. In terms of hiring
18 people in the division of epidemiology and
19 biostatistics, participate in business decisions,
20 general business decisions of the company.

21 Q. Dr. Morgan, Dr. Whorton, or yourself,
22 did any of you three ever testify on behalf of a
23 plaintiff in any litigation matter?

24 A. I think Dr. Morgan did that several
25 times. Dr. Whorton also did that, I'm sure. And
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1 I, myself, have been a consultant to a plaintiff
2 lawyer.

3 Q. But you've never testified on behalf of
4 a plaintiff?

5 A. Testify meaning -

6 Q. In court.

7 A. No.

8 Q. Or in deposition?

9 A. No.

10 Q. Was it one of the general business
11 decisions of Environmental Health Associates or
12 ENSR Health Sciences not to testify on behalf of
13 plaintiffs?

14 A. No, sir.

15 Q. Who were the epidemiologists that worked
16 for you at the Environmental Health Associates or
17 ENSR Health Sciences?

18 A. Over the entire ten years?

19 Q. Yes. All you can remember.

20 A. Some of the names I can recall,
21 Lisa Trent, T-r-e-n-t; Fran Harris; Nancy Gordon;
22 Leeka Kheifets, L-e-e-k-a, K-h-e-i-t-f-e-t-s.
23 Those are the ones I can remember right off the
24 top of my head.

25 Q. Where is Ms. Trent now located?

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1 A. She is still at ENSR Health Sciences.

2 Q. Where is Harris located?

3 A. She's -- I think she left ENSR several
4 months ago. I don't know where she is now.

5 Q. San Francisco area?

6 A. She is still in the Bay area. I don't
7 know which company or whether she is still working
8 or not.

9 Q. Nancy Gordon, where is she located?

10 A. I think she is still with ENSR Health
11 Sciences.

12 Q. Leeka Kheitfets?

13 A. Leeka Kheitfets, she's now with the
14 Electrical Power Research Institute down in
15 Palo Alto, in the Bay area.

16 Q. Your next position you were director of
17 occupational research at the Biometric Research
18 Institute; is that correct?

19 A. That's right.

20 MS. ARRAS: Keith, you're going in
21 reverse order?

22 MR. HYDE: Yeah.

23 MS. ARRAS: All right.

24 BY MR. HYDE:

25 Q. And. you were the senior epidemiologist/
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1 biostatistician?

2 A. Yes, sir.

3 Q. What were your principal job duties in
4 that position?

5 A. To run a couple of projects on
6 epidemiology and biostatistics, provide
7 technical -- you know, input to those projects.

8 Q. Who were the principal customers of
9 Biometric Research Institute?

10 A. They specialize in clinical trials; so
11 it would be pharmaceutical companies.

12 Q. Who were the principal customers of
13 Environmental Health Associates or ENSR Health
14 Sciences during the period when you were the
15 executive vice-president?

16 A. Petroleum companies, chemical companies,
17 paper products companies. We also have a couple
18 of projects from the government, and also
19 universities, as well.

20 Q. Which universities did you do work for
21 when you were with Environmental Health Associates
22 or ENSR Health Sciences?

23 A. I remember specifically University of
24 California, the Berkley campus; and also
25 University of California, San-Francisco campus.

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1 Q. What were the projects involved with
2 those universities?

3 A. I was not involved in those projects,
4 but my understanding was we did some safety audit
5 for those two campuses.

6 Q. Did you participate in any of the
7 projects for the government when you were with
8 Environmental Health Associates or ENSR Health
9 Sciences?

10 A. Well, some of my own projects were
11 funded by the government.

12 Q. What were they?

13 A. Being a consultant to the government.

14 Q. In what areas were you a consultant to
15 the government as it pertains to your employment
16 with Environmental Health Association or ENSR
17 Health Sciences?

18 A. I was a consultant to Occupational
19 Health and Safety Administration, OSHA, to testify
20 on their behalf on the benzene issue, the benzene
21 hearing.

22 Q. How much did OSHA pay Environmental
23 Health Associates or ENSR Health Sciences for your
24 work relative to that project?

25 A. I think it was several days' time.

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1 Q. Did you issue any kind of report or any
2 kind of summary of your work as it pertains to
3 this work with OSHA on the benzene standard?

4 A. I submitted a statement to the hearing.

5 Q. Do you still have a copy of that
6 statement?

7 A. It may be somewhere in the file.

8 Q. I take it you didn't include that
9 statement in any of the exhibits that you have
10 brought with you today; is that correct?

11 A. No, I have not.

12 Q. You didn't rely upon your own summary
13 that you conducted with OSHA; you didn't rely upon
14 that in any way in the formation of your opinions
15 in this case?

16 A. A lot of the things that I said in this
17 statement I also said elsewhere in my papers, and
18 I did bring copies of my papers today.

19 Q. I take it that you conducted an adequate
20 amount of research before you testified on behalf
21 of OSHA as it concerns the benzene standard?

22 A. I was asked mainly to talk about the
23 study that I did on chemical workers exposed to
24 benzene. And, remember, that was back in 19 -- I
25 forgot the exact year. But that was about seven

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1 or eight years ago. And as much as what the
2 literature said at that time, I did look at the
3 literature at that time.

4 Q. And the benzene standard came out in
5 1986, the OSHA benzene standard; is that right?

6 A. Right.

7 Q. And approximately when did you testify
8 on behalf of OSHA relative to the benzene standard?

9 A. I would say probably a year before that.

10 Q. Sometime in 1985? -

11 A. Yes, sir.

12 Q. And my question was, did you adequately
13 research the subject area of benzene before you
14 presented your paper to the OSHA administrative
15 law judge or whoever the hearing officer was?

16 A. I was not asked to present a
17 comprehensive analysis on all the papers on
18 benzene. My focus at that time was to present my
19 study.

20 Q. Well, was there anything about the
21 summary that you presented relative to the OSHA
22 benzene standard that was wrong?

23 MS. ARRAS: Do you mean wrong at
24 the time that he testified?

25 MR, HYDE: Yeah.

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1 A. I won't say there was anything I said
2 was wrong. Depending on -- I haven't looked at my
3 statement for some time. Depends on what we're
4 talking about. Between then and now, there have
5 been new studies, you know, new information.
6 Things might have changed.

7 BY MR. HYDE:

8 Q. What do you understand the purpose of
9 your testifying on behalf of OSHA -- relative to
10 the benzene standard, what do you understand your
11 purpose was in that area?

12 A. To explain my study. That was the main
13 focus.

14 Q. And to present accurate information to
15 the hearing officer; is that right?

16 A. On my study.

17 Q. On your study?

18 A. Right.

19 Q. My question is, did you do that?

20 A. No, your question was, did I do a
21 thorough research on the subject. That's a very
22 comprehensive statement.

23 Now I -don't understand your question.

24 Q. I'll try to rephrase it, try to break it
25 up a little bit.

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1 What is your understanding of the
2 purpose of the hearings that were conducted
3 relative to the benzene standard where you
4 testified?

5 A. I don't understand the question.

6 Q. Why were those hearings held; in other
7 words?

8 A. In general?

9 Q. In general.

10 A. To allow people to express their opinion
11 on that subject.

12 Q. And was it for the purpose of OSHA to
13 allow them to accurately understand all the
14 scientific information in order to make safety
15 regulations for the workers?

16 MR. McCALL: Keith, let me object
17 to the form of the question insofar as I
18 think it's vague. Are you asking him
19 what OSHA was doing or what his
20 understanding was -

21 MR. HYDE: What his
22 understanding -

23 MR. McCALL: -- as opposed to what
24 OSHA was -

25 MR. HYDE: What his understanding
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1 was of why OSHA was holding
2 these hearings.

3 MR. McCALL: Why he was there
4 and -

5 MR. HYDE: Why he was there, yeah.

6 A. Why I was there?

7 BY MR. HYDE:

8 Q. Well, you've already explained that. I
9 understand that. But why was OSHA holding these
10 hearings? What is your understanding?

11 A. I thought I answered that question. To
12 allow different people to express their opinion on
13 the subject.

14 Q. So that OSHA could get all this
15 information and issue a regulation; is that right?

16 A. I'm not Mr. OSHA. I don't know what
17 they do with the information.

18 Q. Well, do you disagree with what I just
19 indicated?

20 A. I'm not agreeing or disagreeing with
21 that statement.

22 Q. When was the last time you read your
23 statement that you gave to OSHA relative to the
24 benzene standard?

25 A. I haven't-seen that statement for a long

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1 time.

2 Q. Did you ever write OSHA and tell them
3 that your statement was wrong, if, indeed, it was
4 wrong?

5 A. I never said it was wrong.

6 Q. Well, if it's wrong today, did you ever
7 go back and say, "OSHA, I made a mistake; and my
8 statement that I gave you in 1985 was incorrect"?
9 Did you ever write them a letter?

10 MR. McCALL: Let me object to the
11 form of the question insofar as it
12 implies that there's something wrong
13 with what he did back in 1985, and I
14 object to that.

15 MS. ARRAS: I object, too. Are
16 you asking him a hypothetical question?

17 MR. HYDE: I just asked him a
18 question.

19 BY MR. HYDE:

20 Q. I'll rephrase it just to deal with the
21 defendants' attorneys.

22 As you think back about your paper, is
23 there anything that is now inaccurate about that
24 paper that you presented at the OSHA hearing on
25 benzene? .

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1 MS. ARRAS: Okay. I'm going to
2 object to the form in the sense that I'm
3 not -- it's not clear in terms of the
4 foundation whether he presented a paper,
5 per se, or he presented testimony
6 regarding a paper that had been
7 previously published. I'm unclear as to
8 what exactly his testimony was. And,
9 so, I think you need to lay more of a
10 foundation.

11 BY MR. HYDE:

12 Q. Can you answer my question?

13 A. No.

14 Q. Okay. Did you testify at the OSHA
15 hearings associated with the benzene standard that
16 was issued sometime in 1986 or '87?

17 A. Yes, sir.

18 MR. McCALL: '86 or '87?

19 MR. HYDE: Yeah, whatever year it
20 was.

21 MR. McCALL: Are you talking about
22 the '85 -

23 MS. ARRAS: Are you talking about
24 the final report?

25 MR- McCALL: -- report?

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1 BY MR. HYDE:

2 Q. The standard was '86 or '87; is that
3 right?

4 A. Yes, sir.

5 Q. Did you testify in 1985 with respect to
6 the proposed benzene standard?

7 A. I don't remember the exact time. It
8 must be within a year before the new standard was
9 set.

10 Q. Sometime in the mid-eighties; is that a
11 fair statement?

12 A. Very good.

13 Q. Okay. Sometime in the mid-eighties, did
14 you testify live in front of a hearing officer
15 relative to the proposed OSHA benzene standard?

16 A. Live as opposed to -

17 Q. Just having a paper being read or a
18 paper -

19 A. No. I was there in person.

20 Q. Where was this held at?

21 A. In Los Angeles.

22 Q. Did you also submit a paper for the
23 docket?

24 A. Not a paper. We called it a statement.

25 Q. A statement. But that statement was
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1 included in the docket for the benzene standard;
2 is that --

3 A. That's correct. Yes, sir.

4 Q. Now, we have established that your paper
5 was part of the benefit docket for the benzene
6 standard and that you testified live in front of a
7 hearing officer sometime in the mid-1980's
8 relative to the OSHA benzene standard; am I
9 correct?

10 A. Can we use the terminology "-statement"
11 as opposed to "paper" -

12 Q. Yes.

13 A. -- because "paper," to me, refers to a
14 publication in general.

15 Q. Statement. We'll use the term
16 "statement." That's fine.

17 A. Okay. Then I will agree with you.

18 Q. Okay.

19 A. Statement.

20 Q. Is there anything about that statement
21 that you gave to OSHA and the hearing officer
22 that's included in the docket of the benzene
23 standard that you now consider incorrect?

24 MS. ARRAS: I'm going to object
25 because the witness has testified that
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1 he's not familiar at this point in time
2 with the statement that he made five or
3 six years ago. He has indicated that he
4 has not reviewed that transcript and
5 that testimony at any point in recent
6 time and is not prepared from his
7 present memory to comment as to the
8 exact or precise wording with respect to
9 what he testified to at the time.
10 So, I feel that it's unfair to ask
11 him a question about something he
12 doesn't know or remember unless you have
13 with you a copy of the transcript and
14 can give him an opportunity to refresh
15 his recollection.

16 BY MR. HYDE:

17 Q. Can you answer my question, Dr. Wong?

18 A. She took the words out of my mouth.

19 Q. You're not prepared to discuss your
20 statement that you gave in 1985?

21 A. If you want to ask me questions on that,
22 I think it's only fair for me to look at what I
23 wrote six or seven years ago.

24 Q. Who was your key contact with OSHA when
25 you developed this Statement?

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1 A. Dr. Infante.

2 Q. Did you and Dr. Infante have any
3 correspondence between you concerning your
4 statement? Did he send you a letter saying,
5 "Would you please testify on behalf of OSHA," and
6 then you sent him a letter back saying, "Yes, I
7 will"? Was there any documents such as that?

8 A. There must have been some correspondence
9 similar to what you just described.

10 Q. Do you have any of that correspondence?

11 A. I don't think so.

12 Q. If that correspondence still existed and
13 you wanted to go look for it, where would you
14 begin to look for that?

15 A. One place I can think of would be what
16 we call the crone (phonetic) file at ENSR. I'm
17 sure they would have destroyed those -- you know,
18 correspondence files that old. Another place is
19 to ask Dr. Infante. He might have a better filing
20 system than I do.

21 Q. Did you do any other work for OSHA or
22 any other government projects during the time you
23 were working for ENSR Health Sciences or
24 Environmental Health Associates?

25 A. I was an external reviewer for a project
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1 at NIOSH, the National Institute for Occupational
2 Safety and Health.

3 Q. Was this on a continuing basis for those
4 nine years, or just certain periods?

5 A. I think that took place on and off over
6 a period of maybe like two or three years.

7 Q. As we sit here today, can you recall any
8 of the matters or studies that you reviewed for
9 NIOSH during the 1981 to 1990 time period?

10 A. There was one study that I Gust
11 mentioned that I was a consultant to at NIOSH on a
12 specific study.

13 Q. Okay. That's what I want to -- I was a
14 little bit confused. You indicated that you were
15 consulting for OSHA; but, in fact, you were
16 consulting for NIOSH?

17 A. No. No. No. No.

18 MR. McCALL: The government -

19 MS. ARRAS: Government -- well,
20 NIOSH.

21 MR. McCALL: Just projects for the
22 government.

23 MR. HYDE: Well, yeah. But
24 earlier, you know, we were asking all
25 about his OSHA work. Now we went to

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1 NIOSH.

2 BY MR. HYDE:

3 Q. And I'm trying to find out, was your
4 benzene work that you did as pertaining to
5 providing a statement to OSHA, was that on behalf
6 of NIOSH or was it on behalf of OSHA?

7 A. The consulting that's related to the
8 benzene hearing was through OSHA. I thought we
9 finished talking about that. You asked me the
10 question -

11 Q. Right.

12 A. -- was there any other project or
13 consulting that I did for OSHA or other government
14 agencies. And I gave you another example of my
15 consulting with NIOSH.

16 Q. That's what I want to know about. The
17 other work with NIOSH, what did that entail?

18 A. I was an external reviewer for a project
19 that Dr. Rinsky was doing. And we had periodic
20 meetings to review the progress of the project.

21 Q. So, you've worked with Dr. Rinsky
22 before?

23 A. I've worked for him or worked with him?

24 Q. With him.

25 A. With him, yes, sir.

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1 Q. And I suppose you find him to be a
2 competent epidemiologist?

3 MR. McCALL: Counsel, are you

4 . referring -- let me object to the form of
5 the question as being vague. Are you
6 referring to a specific study, or are
7 you talking about in general?

8 MR. HYDE: Just as an
9 epidemiologist.

10 BY MR. HYDE: .

11 Q. Is there anything about his work that
12 you feel is inaccurate?

13 A. I agree with him on some issues, and I
14 disagree with him on some other issues.

15 Q. Sometimes there is scientific
16 disagreements between you and Dr. Rinsky -- I mean
17 Mr. Rinsky; is that right?

18 A. I think he got a Ph.D. later on.

19 Q. Well, my question is -

20 A. I don't know. You asked me a couple of
21 questions. I answer one of them.

22 Q. I first asked you, do you think he's a
23 competent epidemiologist?

24 MR. McCALL: And I think that's
25 been asked and answered.

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1 MR. HYDE: Well, he never answered
2 it.

3 MS. ARRAS: He said he agreed with
4 him in -

5 MR. McCALL: Some respects.

6 MS. ARRAS: -- some respects and
7 disagreed with him with others --

8 MR. McCALL: On other issues.

9 MS. ARRAS: -- on other issues.

10 (DISCUSSION OFF THE RECORD)

11 BY MR. HYDE:

12 Q. Back to your work as it pertains to
13 NIOSH. Can you tell me the projects that you
14 performed with NIOSH?

15 A. They were doing a study, an
16 epidemiologic study of some Union Carbide
17 employees in West Virginia. And I was asked to
18 look at the study protocol, attend progress
19 meetings, so on.

20 Q. What were the chemicals or chemical
21 processes of interest as it pertains to the Union
22 Carbide West Virginia plant?

23 A. Oh, they have all kinds of chemicals
24 there.

25 Q. Well, were there any of specific

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1 interest?

2 A. I don't recall.

3 Q. Were there any disease processes or
4 physical conditions that were of significant
5 interest as it pertains to that study of Union
6 Carbide?.

7 A. It was a -- what we call a cohort study.

8 So, it's quite comprehensive in terms of health
9 end points.

10 Q. Is benzene a material that was used at
11 the Union Carbide West Virginia facility?

12 A. I'm pretty sure benzene was one of the
13 chemicals there.

14 Q. Was butadiene one of the chemicals that
15 was used at that facility?

16 A. I'm not sure about that.

17 Q. Was ethylene oxide a material that was
18 used at the Union Carbide West Virginia facility?

19 A. I think ethylene oxide was one of the
20 chemicals, yes.

21 Q. Was there an excess cancer indicated
22 from the epidemiological study of the Union
23 Carbide West Virginia facility?

24 A. I don't know the result of that study.

25 Q. Well, what exactly did you do-for NIOSH

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1 as it pertains to that study?

2 A. As I said, I looked at the protocol; I
3 attended several progress meetings.

4 Q. Did you issue any reports or anything
5 such as that?

6 A. No.

7 Q. Was there any other work you did with
8 NIOSH between 1981 and 1990?

9 A. I can't think of any other.

10 MR. McCALL: Off the record.

11 (DISCUSSION OFF THE RECORD)

12 BY MR. HYDE:

13 Q. Who was your supervisor at the Biometric
14 Research Institute, Inc.?

15 A. My supervisor?

16 Q. Yes. Between 1980 and 1981, who did you
17 report to?

18 A. I reported to Frank Hurley, H-u-r-l-e-y.

19 Q. Where is Mr. Hurley now?

20 A. He's still at Biometric Research
21 Institute.

22 Q. Did the Biometric Research Institute do
23 any work with API or CMA?

24 A. I have no idea.

25 Q. Now, in 1978 through 1980, it indicates

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1 on your CV that you were director of epidemiology
2 with Tabershaw Occupational Medicine Associates;
3 is that correct?

4 A. Yes, sir.

5 Q. Did you work directly for Dr. Tabershaw?

6 A. Yes, sir.

7 Q. And were you involved in any
8 epidemiological studies of the chemical or
9 refining businesses in your role as director of
10 epidemiology at Tabershaw? .

11 A. Yes, sir.

12 Q. Okay. Would you tell me about those
13 studies of oil companies, refineries, or chemical
14 companies as it pertains to epidemiological
15 studies?

16 A. I was in charge of the benzene study
17 sponsored by the Chemical Manufacturers
18 Association at Tabershaw.

19 Q. How many companies were originally in
20 the Tabershaw CMA benzene study?

21 A. Six or seven.

22 Q. How many companies actually completed
23 the epidemiological study that was started?

24 A. I don't remember the number.

25 Q. Well, there were some companies that
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1 initially participated in the CMA benzene
2 epidemiological studies but did not finish the
3 study; is that right?

4 A. There was one, yes.

5 Q. What company was that?

6 A. Arco.

7 Q. Why didn't Arco do it?

8 A. The data was not adequate.

9 Q. Was there any other reasons? Did you
10 ever hear any other reasons why Arco pulled out
11 o f -

12 A. That's the only reason I know.

13 Q. Who told you that?

14 A. No. We looked at some of their records
15 ourselves.

16 Q. There were no other companies that
17 pulled out of the study; is that correct?

18 A. No, sir.

19 Q. Again, you worked directly for
20 Dr. Tabershaw; is that right?

21 A. He was my boss.

22 Q. Did you know Dr. McClellan at the Gulf
23 Oil Company?

24 A. I might have met him once or twice at
25 meetings and so on, but I don't know him that
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1 well.

2 Q. Was Cities Service Corporation or any of
3 the other Cities Service companies, were they ever
4 involved in any of the benzene studies,
5 epidemiological studies conducted by Tabershaw?

6 A. Not that I know of.

7 Q. Back during the period 1978 through
8 1980, had you ever even heard of Cities Service
9 Refining Corporation or Cities Service -

10 MR. McCALL: What was the date

11 again, Keith?

12 BY MR. HYDE:

13 Q. During the 1970's, early 1980's, had you
14 ever heard of Cities Service Refining Corporation?

15 A. I'm pretty sure I have heard about that
16 company.

17 Q. Did you ever meet with any physicians
18 from Cities Service Corporation, either in Tulsa
19 or in Louisiana?

20 A. I know someone who used to be there.

21 Q. Okay. Who is that?

22 A. Dr. Yates.

23 Q. Is that Dr. Veronica Yates?

24 A. Yes, sir.

25 Q. How do you know Dr. Veronica Yates?

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1 A. I must have met her at some meetings, or
2 she could have come to Dr. Tabershaw's office and
3 I met her there.

4 Q. Is that the extent of your knowledge of
5 Dr. Yates, that you met her on one or two
6 occasions, maybe at Dr. Tabershaw's office; is
7 that it?

8 A. Or at professional meetings.

9 Q. Have you and Dr. Yates ever corresponded
10 by letter or anything such as that?

11 A. No.

12 Q. Have you ever talked to Dr. Yates on the
13 telephone?

14 A. I don't think so.

15 Q. Have you ever talked about doing an
16 epidemiological study with Dr. Yates?

17 A. No.

18 Q. Did you ever suggest to Dr. Yates that
19 an epidemiological study be conducted of the
20 Cities Service facilities?

21 A. No.

22 Q. What kind of conversations did you have
23 with Dr. Veronica Yates?

24 A. Probably small talk, just, "Hi, how are
25 you doing?"- It was not any*substantial

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1 conversation.

2 Q. But you think Dr. Veronica Yates may
3 have visited Tabershaw Occupational Medicine
4 Associates in Rockville, Maryland; is that
5 correct?

6 A. I don't know for sure. So many people
7 walked through Dr. Tabershaw's office during those
8 years.

9 Q. You can't be any more definite than
10 that, I take it?

11 A. That's correct.

12 Q. Who were your co-worker epidemiologists
13 at Tabershaw?

14 A. Well, there was another epidemiologist
15 there, Dr. Steve Lamb. But he was not involved in
16 epidemiologic studies. He was in charge of the
17 Occupational Medicine Program at Tabershaw.

18 Q. Where is Dr. Steve Lamb now?

19 A. He's in Washington, D.C.

20 Q. What does he do there?

21 A. I think he has his own company.

22 Q. What's the name of that company?

23 A. I don't know. I don't remember.

24 Q. Why did you leave Dr. Tabershaw's
25 company in 1980?

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1 A. I don't remember.

2 Q. 1977 through 1978 you were the manager
3 of the epidemiological department for Equitable
4 Environmental Health, Inc.; is that correct?

5 A. Yes, sir.

6 Q. What was your principal job duties as
7 the manager of the epidemiological department at
8 Equitable Environmental Health, Inc.?

9 A. Quite similar to what I did at
10 Tabershaw. I was in charge of several.
11 epidemiologic programs.

12 Q. What programs were being conducted at
13 Equitable Environmental Health during the time
14 period that you were there?

15 A. I can't recall the specific projects off
16 the top of my head.

17 Q. Well, were there any epidemiological
18 studies associated with benzene, butadiene, or
19 ethylene oxide conducted back during that time
20 period that you were associated with while you
21 were at Equitable Environmental Health, Inc.?

22 A. I'm pretty sure we did not study any of
23 those three chemicals that you just mentioned.

24 Q. What kind of work was being conducted at
25 Equitable Environmental Health? Was it
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1 pharmaceuticals or was it work for the chemical
2 industry?

3 A. Some of their largest projects were what
4 we call criteria documents, in the seventies. And
5 NIOSH funded those documents. And I participated
6 in some of the work in those documents.

7 Q. Which criteria documents did you
8 participate in?

9 A. I don't remember specific chemicals.

10 Q. Could it have been ethylene dibromide,
11 because I see that you wrote a paper around 1978
12 concerning ethylene dibromide. I was just
13 curious.

14 A. Right. That was one of the projects
15 that I worked on. But that was not part of the
16 criteria document.

17 Q. Your next position was assistant
18 professor, Division of Biostatistics and
19 Epidemiology at the Georgetown University School
20 of Medicine in Washington, D.C.; is that correct?

21 A. Yes, sir.

22 Q. What did you teach at that school?

23 A. Epidemiology and biostatistics.

24 Q. Who was the head of the department at
25 that time when you were assistant professor?

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1 A. Well, I was in a division of
2 biostatistics and epidemiology. And Dr. Chiazze,
3 C-h-i-a-z-z-e, was, still is, the head of that
4 division.

5 Q. Why did you leave that position in 1978?

6 A. I don't remember.

7 Q. What were the principal responsibilities
8 you had as an assistant professor at Georgetown
9 University School of Medicine between 1975 and
10 1978?

11 A. I would say the major focus of my job
12 there was to teach.

13 Q. Did you have any other responsibilities?

14 A. Research.

15 Q. What kind of research did you do during
16 that three-year period while you were at
17 Georgetown?

18 A. We did some -- what we call
19 methodological research in terms of biostatistics
20 and epidemiology. There were a couple of projects
21 that Dr. Chiazze had at that time and I
22 participated in those studies.

23 Q. Are you a nosologist?

24 A. No, I'm not.

25 MR- HYDE: Off the record.

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1 (DISCUSSION OFF THE RECORD)

2 BY MR. HYDE:

3 Q. In 1975 through 1978, I see that you
4 were also director of the epidemiology and
5 statistics unit for the Lombardi Cancer Center; is
6 that correct?

7 A. At Georgetown, yes, sir.

8 Q. What were your duties in that position?

9 A. When I joined Georgetown, the Lombardi
10 Cancer Center just started. So, I provided some
11 input in terms of how to set up the data system to
12 keep track of patients and so on so that we can
13 generate statistical reports out and, to some
14 extent, use the data for any potential
15 epidemiologic analysis.

16 Q. So, in other words, you developed forms
17 for work history and identification of different
18 diseases by using some class of code or
19 classification numbers; and then using this
20 information, you would be able to do some type of
21 epidemiological study in the future; is that
22 right?

23 A. That was the general idea, yes.

24 Q. This was not as it pertains to an
25 epidemiological study of the Georgetown University
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1 workers, but more of the patients; is that
2 correct?

3 A. The patients who go to the hospital.

4 Q. Were there any studies that were
5 completed during that time period at the Lombardi
6 Cancer Center as it pertains to epidemiology of
7 cancer?

8 A. I don't think so.

9 Q. Has there ever been any reports issued
10 from Lombardi Cancer Center as it pertains to
11 cancer and epidemiology from -

12 A. I did not keep track of them. I mean,
13 it's a huge place.

14 Q. Well, what happened to the program that
15 you set up back in 1975 through 1978 as it
16 pertains to epidemiology?

17 A. I did not set up a program, per se. I
18 was involved in the implementation of it.
19 Certainly I would not say I set up a program
20 there. And I really don't know what happened to
21 the Lombardi Cancer Center.

22 Q. Have you ever seen any studies from the
23 Lombardi Cancer Center relative to cancer
24 epidemiology?

25 A. Off the top of my head, I don't remember
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1 seeing any.

2 Q. And between 1972 to 1975 you were a
3 NIOSH fellow in industrial biostatistics; is that
4 correct?

5 A. At the University of Pittsburgh.

6 Q. Basically NIOSH was paying you to go to
7 school; is that what it amounts to, you to do
8 research?

9 A. There was some duties involved.

10 Q. What were your duties as a NIOSH fellow
11 in industrial biostatistics at the University of
12 Pittsburgh?

13 A. One thing I remember very clearly and
14 painfully was I spent three months in Washington,
15 D.C., copying all the employment records of
16 30-some thousand United Mine Workers Union members
17 by myself.

18 (DISCUSSION OFF THE RECORD)

19 BY MR. HYDE:

20 Q. Who were you reporting to or answering
21 to as a NIOSH fellow at the University of
22 Pittsburgh?

23 A. I would say Dr. Enterline.

24 MR. HYDE: We can go ahead and
25 take our lunch break.

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1 (LUNCH BREAK TAKEN AT 12:30 P.M.)

2 BY MR. HYDE:

3 Q. Dr. Wong, I would like to go over with
4 you some of the professional affiliations that you
5 have mentioned on Page 2 of your CV. In
6 particular, you indicate that you have an
7 affiliation with the American Medical Record
8 Association; is that correct?

9 A. Yeah, I was a member of that association
10 for some time.

11 Q. What was your membership status? Were
12 you a full member, an associate member, something
13 such as that?

14 A. I don't even remember whether they have
15 such a distinction.

16 Q. Did you belong to any committees or did
17 you hold any offices within that organization?

18 A. No.

19 Q. When were you last a member of the
20 organization?

21 A. Probably four or five years ago when
22 someone forgot to pay my membership fee.

23 Q. So, as it stands right now, you're not a
24 member of this organization?

25 A. I don't think so.

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1 Q. Now, the American Public Health
2 Association, what is your membership status with
3 that organization?

4 A. I was a member for quite a long time.

5 Q. Were you a full member, an associate
6 member, or anything such -- what was your
7 membership status?

8 A. Just a regular member.

9 Q. Did you belong to any committees or did
10 you hold any offices within that association?

11 A. I belonged to a small section which is
12 mentioned later on, Caucus of Asian-American
13 Health Workers. That was part of that
14 association, as well. I was a member of that
15 caucus for about -- oh, a couple of years, I
16 believe.

17 Q. Are you a member of that organization
18 right now?

19 A. .No, I'm not.

20 Q. When was the last year that you were a
21 member of the American Public Health Association?

22 A. Probably several years ago.

23 Q. The American Statistical Association,
24 are you still a member of that organization?

25 A. Yes, sir.

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1 Q. And what is your membership status. Is
2 it associate member, full member?

3 A. A full member I would say.

4 Q. Have you held any offices within that
5 organization?

6 A. No.

7 Q. Have you been on any committees within
8 that organization?

9 A. I don't recall.

10 Q. When is the last time you attended a
11 meeting of the American Statistical Association?

12 MR. McCALL: American?

13 MR. HYDE: Yes.

14 A. Many years ago. I don't remember.

15 BY MR. HYDE:

16 Q. What are the requirements to be a member
17 of the American Statistical Association?

18 A. I don't know the exact requirements.

19 Q. What is the purpose of the American
20 Statistical Association? What is it that this
21 organization does?

22 A. They put out a journal, a very good
23 journal, called "Journal of the American
24 Statistical Association." They have one big
25 meeting every year and other small meetings, as
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1 well. And they also sponsor some educational
2 programs, scholarships for students in statistics.

3 Q. Are you currently a member of the
4 Biometric Society?

5 A. Yes, sir.

6 Q. What is the Biometric Society? What's
7 the purpose of that group?

8 A. It's along the same line as the American
9 Statistical Association. The emphasis of that
10 society would be on statistics applied in the
11 biological or the medical disciplines.

12 Q. Have you held any offices within that
13 organization?

14 A. No.

15 Q. What is your membership status within
16 the Biometric Society?

17 A. I'm a regular member.

18 Q. When was the last time you attended a
19 meeting of the Biometric Society.

20 A. I don't think I have attended any
21 meetings.

22 Q. Do you get any kind of publication from
23 the Biometric Society?

24 A. Yes. They have a journal called
25 "Biometrics." And I receive that on a regular
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1 basis.

2 Q. When did you first become a member of
3 the Biometric Society?

4 A. 12, 15 years ago.

5 Q. Do they have an annual meeting or
6 anything such as that?

7 A. I think so.

8 Q. You don't recall ever attending any of
9 those meetings?

10 A. No.

11 Q. The Caucus of Asian American Health
12 Workers, I think you indicated was a part of the
13 American Statistical Association?

14 A. Right.

15 Q. What is the purpose of the Caucus of
16 Asian American Health Workers? What did that
17 group do?

18 A. Just like any other group. We felt an
19 urge to form our own little group and communicate
20 with each other within a much bigger organization,
21 American Public Health Association.

22 Q. Can you give me the names of any other
23 members of the Caucus of Asian American Health
24 Workers that you can recall?

25 A. I cannot.

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1 Q. Are you still a member of that caucus?

2 A. No, since I'm no longer a member of the
3 American Public Health Association.

4 Q. Are you still a member of the Human
5 Biology Council?

6 A. Yes, sir.

7 Q. I see that you're a fellow in that
8 organization?

9 A. Yes, sir.

10 Q. What does the designation "fellow" mean
11 as it pertains to the Human Biology Council?

12 A. On the average, they're older than the
13 regular members. I really don't know what
14 requirements they have. But I submitted my
15 application several years ago, and they give me
16 the "fellow" designation.

17 Q. How long have you been a member of the
18 Human Biology Council?

19 A. Five or six years.

20 Q. Are you on any committees or do you hold
21 any offices within that organization?

22 A. No.

23 Q. Have you ever attended a meeting at the
24 Human Biology Council?

25 A. No.

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1 Q. Do you receive any publications from the
2 Human Biology Council?

3 A Yes.

4 Q. What is the name of that publication?

5 A. "Human Biology."

6 Q. What type of subjects are discussed
7 within that publication?

8 A. From time to time they have papers on
9 demographies and on biology related to human
10 populations, some articles in between-biology and
11 medicine, some applications of statistics in
12 biology and that kind of thing.

13 Q. Describe for me your association and
14 affiliation with the New York Academy of Sciences.

15 A. I belonged to that for a few years.

16 Q. When did you first belong to that
17 organization?

18 A. Probably in the mid-eighties, 1980's.

19 Q. Are you still a member of that
20 organization?

21

22 Q. Do you know what year you quit being a
23 member of the New York Academy of Sciences?

24 A. Probably in the late eighties.

25 Q. Did you hold any offices or were you on

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1 any committees within the New York Academy of
2 Sciences?

3

4 Q. Did you attend any meetings of the
5 New York Academy of Sciences?

6 A. I cannot recall.

7 Q. Are you presently a member of the
8 Washington Statistical Society?

9 A. No, not since I left the Washington,
10 D.C. area.

11 Q. What was your membership status with the
12 Washington Statistical Society when you were in
13 that organization?

14 A. I was a regular member.

15 Q. How long were you a member of the
16 Washington Statistical Society?

17 A. I guess four years or so when I lived in
18 the Washington, D.C. area.

19 Q. Did you ever attend any meetings of the
20 Washington Statistical Society?

21 A. There was a symposium sponsored by that
22 society in the late 1970's. I went to that
23 meeting.

24 Q. So, you recall going to one symposium of
25 the Washington Statistical Society; is that it?

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1 A. Right.

2 Q. Would you describe for me your
3 affiliation with the Society for Clinical Trials?

4 A. I was a member of the Industrial Society
5 when I was at Georgetown University and then also
6 when I was at Biometric Research Institute.

7 Q. I take it that you are no longer a
8 member of that society; is that correct?

9 A. No, because I'm not doing any clinical
10 trials.

11 Q. I'm sorry. That was a double negative.
12 Are you a member of the Society for Clinical
13 Trials?

14 A. No, I'm not.

15 Q. What was the last year you were a member
16 of the Society for Clinical Trials?

17 A. I would say in 1981.

18 Q. Did you ever attend any meetings of the
19 Society for Clinical Trials?

20 A. No.

21 Q. Did you hold any offices or were you on
22 any committees within the Society for Clinical
23 Trials?

24 A. No.

25 Q. Would you please describe for me your
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1 affiliation with the Society for Epidemiologic
2 Research?

3 A. I have been a member for about 12 years
4 in that society.

5 Q. What is your current membership status?

6 A. Full member.

7 Q. Have you ever been a member of any
8 committee or hold any office within the Society
9 for Epidemiologic Research?

10 A. No.

11 Q. Have you ever attended a meeting of the
12 Society for Epidemiologic Research?

13 A. I have attended several meetings
14 sponsored by that organization.

15 Q. When was the last meeting of the Society
16 for Epidemiologic Research that you attended?

17 A. I would say the last meeting was in
18 June, 1991.

19 Q. About how often on an annual basis have
20 you attended Society for Epidemiologic Research
21 meetings or functions?

22 A. They have one conference every year.

23 And I think within the last few years, I have been
24 going to those yearly conferences.

25 Q. Of the 12 years that you have been a
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1 member of the Society for Epidemiologic Research,
2 how many of the annual conferences have you
3 attended?

4 A. Maybe five or six times.

5 Q. And other than the yearly conferences,
6 have you attended any other meetings of the
7 Society for Epidemiological Research?

8 A. I think that's the only conference they
9 have on a yearly basis.

10 Q. Would you please describe for me your
11 affiliation with the Society for Occupational and
12 Environmental Health?

13 A. I'm a member of that society.

14 Q. How long have you been a member of that
15 organization?

16 A. I was a member for quite a few years in
17 the late 1970's and early eighties. And I joined
18 again maybe a year ago.

19 Q. So, you joined sometime in 1990 or '91?

20 A. Maybe early '91.

21 Q. So, you rejoined the Society for
22 Occupational and Environmental Health sometime in
23 early 1991?

24 A. Yeah.

25 Q. And your membership status is full

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1 member?

2 A. Well, you keep using the terms "full
3 member" and "associate member." I'm not so sure -
4 I mean, I have never looked at it that way. I
5 don't know whether they call it full member or
6 half member or quarter member.

7 Q. Well, the reason I ask is because in the
8 Human Biology Council, you're a fellow. And I'm
9 just curious as to what your membership status is
10 in all these organizations. And if that's unclear
11 whether you're a member or an associate member,
12 just give me your best answer.

13 A. I'm a regular member, as far as I know.

14 MR. McCALL: Or whether it exists,
15 huh?

16 THE WITNESS: I don't know whether
17 it exists. That's why I have a problem
18 with the question.

19 MR. McCALL: Yeah.

20 BY MR. HYDE:

21 Q. What is the purpose of the Society for
22 Occupational and Environmental Health? What's the
23 charge of this organization?

24 A. I think they have yearly conferences,
25 and they also have a journal.

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1 Q. When is the last time you attended a
2 yearly conference of the Society for Occupational
3 and Environmental Health?

4 A. The one that I can remember was eight or
5 nine years ago.

6 Q. When is the last time you attended any
7 meeting for the Society for Occupational and
8 Environmental Health?

9 A. Wait a minute. Is this the same
10 question or -

11 Q. Well -

12 A. What was the previous one?

13 Q. The previous one was: When was the last
14 time you attended the yearly conference of the
15 Society for Occupational and Environmental
16 Health? You said eight or nine years ago. Is
17 that right?

18 A. Right.

19 Q. My next question: When was the last
20 time you attended any meeting of the Society for
21 Occupational and Environmental Health?

22 A. That would be the same answer.

23 Q. Have you ever served on any committees
24 or held any offices within the Society for
25 Occupational and Environment Health?

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1 A. No.

2 Q. Would you please describe for me your
3 affiliation with the Society for Risk Analysis?

4 A. I'm a member in that organization.

5 Q. How long have you been a member of the
6 Society for Risk Analysis?

7 A. Three or four years.

8 Q. Do you hold any special membership
9 status for that organization?

10 A. My answer is no, and I don't know
11 whether they have special memberships.

12 Q. When was the last time you attended a
13 meeting of the Society for Risk Analysis?

14 A. I have never gone to any meetings
15 sponsored by this society.

16 Q. Have you ever held any offices or worked
17 on any committees within the Society for Risk
18 Analysis?

19 A. No.

20 Q. Are you still a consultant with the
21 Tabershaw Occupational Medicine Association, P.A.?

22 A. No, I don't think Tabershaw Occupational
23 Medicine Associates exists anymore.

24 Q. Are you still a consultant to the
25 Chemical Industry Institute of Toxicology?

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1 A. No.

2 Q. Are you presently a consultant with
3 Velsicol Chemical Corporation?

4 A. No.

5 Q. Are you presently a consultant to
6 Professional Consultants and Occupational Health,
7 Inc.?

8 A. No.

9 Q. Are you presently a consultant with
10 Union Carbide Corporation?

11 A. No.

12 Q. Are you presently a consultant with
13 Health Industry Manufacturers Association?

14 A. No.

15 Q. Are you presently a consultant to the
16 American Paper Institute of National Forest
17 Product Association?

18 A. No.

19 Q. Describe for me the nature of your
20 consulting work as it pertained to the Union
21 Carbide Corporation.

22 MS. ARRAS: You mean past tense -

23 MR. HYDE: Yes.

24 MS. ARRAS: -- pertained to?

25 A. Over the years I worked on a-number-of
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1 projects for them. Some examples would be
2 reviewing some studies that they had finished,
3 looked at their computerized employee health
4 data. That's pretty much the nature of my work
5 with them.

6 BY MR. HYDE:

7 Q. When was the last time you did any
8 consulting work with Union Carbide Corporation?

9 A. Three or four years ago maybe.

10 Q. Describe for me the nature of your
11 consulting work with Velsicol Chemical Corporation
12 when you were a -consultant with that group.

13 A. I think the nature of the work that I
14 did for Velsicol would be similar to what I
15 described for Union Carbide.

16 Q. Did your work center around chlorodane
17 and those type of materials?

18 A. No, that -- we never worked on that
19 chemical.

20 Q. Did you work with Dr. Carl Zentz as it
21 concerns any of your work with Velsicol Chemical?

22 A. No.

23 Q. Describe for me the nature of your
24 consulting work with the Chemical Industry
25 Institute of Toxicology?

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1 A. I was asked to work with their chief
2 epidemiologist many years ago on some statistical
3 programs that we can use in epidemiologic research.

4 Q. Is there anything else you did with the
5 Chemical Industry Institute of Toxicology other
6 than that work?

7 A. No.

8 Q. Describe for me your consulting work
9 relative to the psychiatry department of the
10 Fairfax Hospital.

11 A. I was working with a psychiatrist who
12 was on the staff of Fairfax Hospital, but who was
13 also a faculty member at Georgetown. And we wrote
14 a couple of papers based on some psychiatric data
15 that he had from Fairfax Hospital.

16 Q. I may have overlooked it, but you
17 haven't placed in here consultant to Mobil Oil
18 Corporation. Haven't you before been a consultant
19 to that company?

20 A. Our relationship, meaning the
21 relationship we had at ENSR Health Sciences, or,
22 you know, Medical Health Associates, was not so
23 much in terms of consulting, but a lot of
24 projects. We had two or three studies, not
25 consulting activity, with Mobil.

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1 Q. What is the nature of your consulting
2 work as it concerns the Motor Vehicle
3 Manufacturers Association?

4 A. That must have been when I was at
5 Georgetown. Dr. Chiazzie, my boss, former boss at
6 Georgetown, he did a lot of work for Motor Vehicle
7 Manufacturers Association. And I was asked to
8 participate in some of those projects.

9 Q. Do any of those studies or work stick
10 out right now as to what it was you were doing
11 with that organization?

12 A. I think we might have published a paper
13 or two as a result of our work. And that should
14 be in my CV (reviewing document).

15 Q. Did it pop out?

16 A. No, I didn't see that, either. I
17 thought we wrote a couple of reports. I don't
18 know whether Dr. Chiazzie submit that for
19 publication.

20 Q. I see also that you were a consultant
21 for the Organization Resource Counselors; is that
22 correct?

23 A. Right.

24 Q. What time period were you a consultant
25 for that organization?

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1 A. That was when I was at Georgetown. So,
2 it's got to be between '75 and '78.

3 Q. What type of consulting work did you do
4 with the Organization Resource Counselors, Inc.?

5 A. The ORC had a contract to do some
6 studies, and they hired a group at Georgetown to
7 be their chemical consultants. And I was one of
8 them.

9 Q. Did you have your own contract as a
10 consultant with ORC, or was your work-as a
11 consultant consumed within a group from
12 Georgetown? How was that -

13 A. It was an agreement between ORC and
14 Georgetown University.

15 Q. So, it was not a specific agreement
16 between you, personally, and ORC?

17 A. No.

18 Q. Tell the jury who makes up the ORC, as
19 far as the member companies.

20 A. I don't know.

21 Q. Isn't it true that the ORC is primarily
22 a group of oil and chemical companies?

23 A. I don't know.

24 Q. Isn't it also true that the ORC is -- one
25 of their -primary purposes is to affect regulations

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1 and litigation coming from Washington, D.C.?

2 A. I don't know.

3 Q. In there you also indicate that you were

4 a consultant with OSHA on the benzene standard

5 hearing. Again, your consulting work was only

6 limited to the mid-1980's for that one standard;

7 is that right?

8 A. Yes, sir.

9 Q. And that was a matter of a couple of

10 days' worth of work?

11 A. Several days.

12 Q. Several. And as it pertains to your

13 consulting work with the National Institute for

14 Occupational Safety and Health, again, you're

15 talking several days or several weeks' worth of

16 work; is that correct?

17 A. No, I would say two to three days,

18 whenever we had a meeting. And that happened

19 several times over a period of two or three years.

20 Q. You indicate you were a member of the

21 Site Visit Team, Smoking and Health Program,

22 National Cancer Institute. What did you do as a

23 member of that group?

24 A. One site visit that I remember

25 specifically was to .the American Health Foundation

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1 in New York City. At that time they had a
2 continuing contract from the National Cancer
3 Institute to do different kinds of research
4 projects on the health effects of smoking. And I
5 was asked by NCI, the National Cancer Institute,
6 to review the proposal, to listen to the
7 presentation in New York City, and basically, you
8 know, make a recommendation to NCR whether to fund
9 activity or not.

10 Q. Have you ever been employed .by any
11 tobacco industry as a consultant?

12 A. No.

13 MR. McCALL: Your answer was

14 "no"?

15 THE WITNESS: "No."

16 BY MR. HYDE:

17 Q. Did you do anything else other than
18 visit the American Health Foundation one time as
19 it pertained to your work on the Smoking and
20 Health Program, Site Visit Team, for the National
21 Cancer Institute?

22 A. They sent me quite a few proposals
23 asking for research money, but that was the only
24 site visit.

25 Q. The next-entry on your CV indicates a

1 proposal reviewer for the Smoking and Health
2 Program, National Cancer Institute. What were you
3 doing for that group?

4 A. Where are you now, in the middle of the
5 page?

6 Q. Page 4, proposal reviewer.

7 A. Right.

8 Q. And my question, what were you doing as
9 a proposal reviewer for the Smoking and Health
10 Program, National Cancer Institute?

11 A. Basically, as I say, you know, looked at
12 the proposals, asked some questions, and make a
13 recommendation to NCI regarding whether they
14 should fund the study or not.

15 Q. And up on the third from the top, it
16 says "grant application reviewer," Safety and
17 Occupational Health Study Section, National
18 Institute of Health. What were you doing as a
19 grant application reviewer?

20 A. I was one of the committee members for
21 NIH. They divide their review process into
22 different sections. And I was a committee member
23 for that Safety and Occupational Health Study
24 Section. Basically, again, we looked at grant
25 applications from universities or other private
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1 research organizations.

2 Q. How long were you a grant application
3 reviewer for the National Institute of Health?

4 A. A year or two.

5 Q. What was the time period?

6 A. Late eighties.

7 Q. As it concerns your work with the
8 National Cancer Institute, what was the respective
9 time frame for your work with that organization?

10 A. Either late seventies or early
11 eighties.

12 Q. Have you ever consulted with any labor
13 union? In other words, has any labor union ever
14 employed you to do any type of epidemiological
15 work?

16 A. Well, as I mentioned earlier, when I was
17 a student at the university, I participated in
18 that United Mine Workers Union study. So, that's
19 one that I can think of. There was another one
20 that -

21 MS. ARRAS: Dr. Wong, which
22 university and at what point in time?

23 THE WITNESS: The University of
24 Pittsburgh, '72 to '75.

25

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1 BY MR. HYDE:

2 Q. But your participation in that study was
3 to Xerox union records; is that right?

4 A. No. I only told you about the less
5 glamorous part of that. I also worked on the
6 statistical part and so on. In fact, I was going
7 to write my thesis based on that data. Otherwise,
8 I would not have gone down to Washington for three
9 months. But it turns out that there was some
10 holdup and I could not use the data in time for my
11 thesis. And I used something else instead.

12 I also worked on another project that
13 the union also participated in the study. I'm
14 trying to find the publication.

15 Publication 37. Okay. We did a study
16 in conjunction with a union to study members of
17 what they called the Heavy Construction Equipment
18 Operators Union, to study the mortality of their
19 members.

20 Q. What were your findings from that study?

21 A. I don't remember anything outstanding.
22 I just don't recall the detailed results, but
23 certainly not something that sticks in my mind.

24 Q. Do you know C.P. Wen?

25 A. Yes, I do.

1 Q. On Publication 31, what was the extent
2 of your participation as it concerns Publication
3 No. 31?

4 A. When I was employed by Tabershaw, we did
5 a study for -- I guess at that time the company
6 was called Gulf, Gulf Oil Company -- of the
7 employees at Port Arthur refinery. And we wrote a
8 report after we finished the study. Based on that
9 data, plus some other data that they have
10 in-house -- "in-house" meaning within the company -
11 the people at Gulf wrote a report combining some
12 of the results that we had in our epidemiologic
13 study that I finished at Tabershaw. So, it was a
14 joint paper.

15 Q. You actually participated in writing
16 that paper?

17 A. Not the manuscript, per se; but I
18 believe some of the writing in that paper was
19 taken out from the report that I -- that we
20 submitted at Tabershaw.

21 THE REPORTER: Let me change this
22 paper.

23 (DISCUSSION OFF THE RECORD)

24 BY MR. HYDE:

25 Q. On Publication No. 29, would you tell me

1 about your participation in that study and
2 publication?

3 A. I think 29 and 31 are more or less the
4 same publication. 29 was presented at a symposium
5 and published as part of the proceedings of that
6 symposium. And 31 was a formal paper published in
7 the journal.

8 Q. On Publication No. 36, what was your
9 participation in that study and publication?

10 A. Again, that paper was based on the study
11 or on the data that we created for Gulf while I
12 was at Tabershaw. And, subsequently, they analyzed
13 the data. That's what we had done, and we wrote a
14 paper together.

15 Q. You actually helped write that paper?

16 A. Part of it, yes.

17 Q. On No. 72, Publication No. 72, you wrote
18 an article "Epidemiology and Toxic Torts," Texas
19 Bar Journal. What caused you to write that
20 particular article?

21 A. Scientists always want to publish.

22 Q. What was the basic focus of that
23 particular article?

24 A. Basically educate lawyers on some basic
25 concepts of epidemiology.

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1 Q. To an extent, would that be kind of a
2 marketing tool for your business, this particular
3 presentation?

4 A. I resent that implication. I don't need
5 any marketing.

6 Q. No. 74, Publication -

7 A. That's all the questions you have on 72?

8 MR. HYDE: Off the record.

9 (DISCUSSION OFF THE RECORD)

10 BY MR. HYDE:

11 Q. Publication No. 74, an article
12 concerning "Exposure to Ethylene Oxide and
13 Hematopoietic Cancer," you indicate is to appear
14 in the New England Journal of Medicine; is that
15 correct?

16 A. Well, actually it has appeared. It was
17 published in the October issue. And I have
18 included that in the package that I handed over to
19 you this morning.

20 Q. I take it that you found no increased
21 incidence of hematopoietic cancer for workers
22 exposed to ethylene oxide; is that correct?

23 A. Why do you say that?

24 Q. Am I right?

25 A. There was an increase of non-Hodgkin's

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1 lymphoma among the male workers but not the among
2 female workers.

3 Q. When you say 'increased,' how elevated
4 was the non-Hodgkin's lymphoma in male workers?

5 A. I don't remember the numbers. Are you
6 asking me for numbers specifically?

7 Q: Well, just generally.

8 A. There was an increase statistically
9 significant, but I don't remember the exact
10 numbers.

11 MR. HYDE: Off the record.

12 (DISCUSSION OFF THE RECORD)

13 BY MR. HYDE:

14 Q. Dr. Wong, as it concerns the level of
15 ethylene oxide exposure to the workers listed in
16 Publication No. 74, what was the range of ethylene
17 oxide exposure to those workers?

18 A. I better look at the report before I
19 answer your question. I just don't remember that.

20 Q. On No. 76 it indicates that you
21 conducted a nested case-control study of lung
22 cancer with a couple of other authors. Would you
23 define what a nested case-control study is?

24 A. Well, let's first talk about what a
25 case-control study is.

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1 Q. Okay.

2 A. A case-control study is one in which you
3 compare the exposure history or employment history
4 of cases of patients with a certain disease that
5 you want to study to expose the histories or
6 employment histories of people without such
7 disease but otherwise comparable. We call those
8 people control. So, that would be a case-control
9 study.

10 A nested case-control study .is one that
11 you select both your cases and controls within a
12 cohort. A cohort is a group of people with some
13 common exposure, such as employees of a certain
14 company.

15 Q. What is the value of performing a nested
16 case-control study?

17 A. Can you be a little more specific?

18 MR. McCALL: As compared to what,
19 Keith?

20 BY MR. HYDE:

21 Q. Why do you conduct a nested case-control
22 study?

23 A. Using Publication 76 as an example, when
24 we started that project at that time, there was
25 several cohort studies in the literature reporting

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1 that there was a small increase of lung cancer
2 among workers exposed to man-made fiber or slag
3 wool fibers. But in those studies, in cohort
4 studies, usually we do not have information on
5 smoking. And cigarette smoking is certainly a j

6 major confounder in any lung cancer study.
7 And at the same time, we did not -- not
8 "we" -- in those studies, those cohort studies
9 did not have any information on contamination such
10 as asbestos or arcenic in some of the man-made
11 fiber.

12 On the other hand, if you use a
13 case-control study, the numbers of those subjects
14 would be much smaller. With a smaller number, we
15 can go out and collect information on smoking, on
16 lifestyle, and other confounding exposure.

17 THE REPORTER: "Confounding"?

18 THE WITNESS: Right.

19 BY MR. HYDE:

20 Q. So, really, a nested case-control study
21 allows you to conduct further analysis and more
22 specific analysis when the study -- when the
23 cohort study needs such an analysis; is that
24 right?

25 A. That's true.

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1 Q. So, nested case-control studies
2 certainly have a value; and sometimes they're very
3 valuable studies; would you agree to that?

4 A. If they are properly done, yes.

5 Q. Are you familiar with the nested
6 case-control study conducted by Matanoski and
7 others relative to butadiene?

8 A. I heard they conducted case-control
9 analysis of the same data subsequent to the
10 cohort -- the publication of the cohort study. I
11 don't think that has been published, the
12 case-control analysis.

13 Q. You're not familiar with any nested
14 case-control study by Matanoski associated with
15 the chemical butadiene; is that correct?

16 A. I have not seen a publication.

17 Q. When we get to Publication 74, I may
18 have some questions on that. You have indicated
19 that Publication No. 74 is included in the
20 documents that you've utilized as a basis for your
21 opinion; is that correct?

22 A. Yes, sir.

23 Q. Were you told not to write a report as
24 it relates to this case?

25 A. I was not told either way.

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1 Q. Do you normally write a report when
2 attorneys ask you to provide expert opinions?

3 A. Only if they ask me.

4 Q. Have you talked with any of the other
5 defendant experts in this case other than Ben
6 Thomas, Dr. Wallerstein, Dr. Irons, and, I believe,
7 Dr. Bickers? Have you talked with any other
8 experts in this matter?

9 A. At that meeting, at that November
10 meeting.

11 Q. Well, what I'm asking you -- I think the
12 defendants have some other experts, don't you,
13 other than -- and my question is: Have you talked
14 to any of those other experts?

15 A. No.

16 Q. How long have you known Dr. Wallerstein?

17 A. The first time I heard about him was
18 through a case that I worked on, the Hanson versus
19 Chevron case. He was also an expert in that case,
20 but I didn't talk to him then.

21 Q. So, you met Dr. Wallerstein through
22 other litigation; is that correct?

23 A. No, I did not meet him. I met him for
24 the first time in November.

25 Q. And you do know Dr. Irons; isn't that
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1 correct?

2 A. Yes, sir.

3 Q. How long have you known Dr. Irons?

4 A. Three years.

5 Q. Did you first meet Dr. Irons in the

6 Skeen versus Monsanto case?

7 A. Yes, sir.

8 Q. Before that you had not met Dr. Irons;

9 is that right?

10 A. No. _

11 Let me just clarify that. I have seen

12 his name before, but not know him, per se.

13 Q. Did you tell Ms. Arras about Dr. Irons

14 and his expertise in toxicology?

15 MS. ARRAS: I am going to object

16 to the form of the question.

17 BY MR. HYDE:

18 Q. You may answer the question.

19 A. She may have asked me some questions

20 about Richard Irons.

21 Q. Other than the meeting that was held, I

22 believe November 21st, have you talked with

23 Dr. Irons relative to this lawsuit?

24 . A. No.

25 Q. Have you talked to Dr. Thomas about this

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1 lawsuit, other than on November 21st?

2 A. No.

3 Q. Other than the meeting on November 21st,
4 have you talked with Dr. Wallerstein concerning
5 this lawsuit?

6 A. No.

7 Q. Do you recall a meeting at John Tyler's
8 law offices in 1989 in which the Skeen case was
9 discussed?

10 A. You were there, weren't you?

11 Q. No. I was asking you a question.

12 MS. ARRAS: I am going to object
13 as being vague. I mean, that's kind a
14 non-specific question.

15 BY MR. HYDE:

16 Q. Were you at a meeting in John Tyler's
17 office in Houston, Texas, sometime in 1989 where
18 the Skeen case was discussed?

19 A. I was at a meeting. I don't know
20 whether that was the only subject of the meeting.

21 Q. Did you receive any kind of handouts or
22 information that was passed out at that meeting?

23 A. No.

24 Q Did you meet with Dr. Irons or did you
25 talk with Dr. Irons when that meeting was held in
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1 John Tyler's office in 1989?

2 A. I don't remember talking to him about
3 that.

4 Q. Who paid your fee for attending that
5 meeting in John Tyler's office in 1989 relative to
6 discussing Skeen and benzene in general? Did
7 John Tyler -

8 MS. ARRAS: I am going to object.

9 There is no foundation laid that benzene
10 was discussed at the meeting.

11 BY MR. HYDE:

12 Q. Dr. Wong, was benzene discussed at the
13 meeting at John Tyler's office in Houston, Texas,
14 in that meeting that was held in 1989?

15 A. I believe we talked about benzene.

16 Q. My question was, did the Chemical
17 Manufacturers Association pay you to attend that
18 meeting, or did John Tyler pay you to attend that
19 meeting?

20 A. I know for sure CMA did not pay for me
21 to go to that meeting. You ask a very good
22 question. In fact, I don't know. I don't
23 remember anybody paying me to go down there.

24 Q. Were you reimbursed for your expenses
25 for attending-that meeting?

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1 A. I don't even remember that. It may have
2 been an occasion that I was down in the Houston
3 area and they asked me to go to the meeting.

4 Q. Have you added any more employees to
5 your Applied Health Sciences, or are you still the
6 only employee?

7 A. Since the last time I talked to you -

8 Q. Yes.

9 A. -- no.

10 Q. You're still the only employee; is that
11 correct?

12 A. Yes.

13 MR. McCALL: You're talking about
14 since the Wing deposition?

15 MR. HYDE: Yes, since the Wing
16 deposition -

17 A. I said "no."

18 BY MR. HYDE:

19 Q. You're still the only employee?

20 A. Right.

21 MS. ARRAS: You're the only
22 full-time employee?

23 THE WITNESS: Right.

24 BY MR. HYDE:

25 Q. As we sit here today, Applied-Health
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1 Sciences, are they performing any work for the
2 API?

3 A. I have a contract with ENSR Health
4 Sciences to finish a study that I was working on
5 for API for the last five, six years when I was at
6 ENSR.

7 Q. That was the transportation of petroleum
8 products, that EPI study associated with those
9 individuals?

10 A. The study of what we call distribution
11 workers.

12 Q. And has that study been released yet?

13 A. We submitted a draft report to API in
14 October. And we have received some comments back,
15 and I'm in the process of revising the report.

16 Q. Are you relying upon that study
17 involving the distribution workers, funded by the
18 API, in any way relative to the opinions you have
19 formed in this lawsuit?

20 A. Depends on whether there is the need to
21 rely on that study, depends on the questions that
22 I'm going to be asked.

23 Q. Well, obviously, you've formed opinions
24 about causation and epidemiology relative to the
25 four plaintiffs; is that correct?

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1 A. Yes, sir.

2 Q. And my question is: Has the
3 distribution workers API study in any way formed a
4 basis of your opinions relative to the four
5 plaintiffs in this lawsuit?

6 A. At this point, no.

7 Q. Do you have any other contracts or work
8 with the API?

9 A. No.

10 Q. Are you presently doing any .work with
11 the Chemical Manufacturers Association?

12 A. No.

13 Q. Has Applied Health Sciences done any
14 work for the CMA since the formation of Applied
15 Health Sciences?

16 A. No.

17 Q. Is Applied Health Sciences presently
18 doing any work for any of the oil and chemical
19 companies?

20 MR. McCALL: Keith, let me ask you
21 to clarify that a little bit more. I
22 mean -

23 MR. HYDE: No problem.

24 MR. McCALL: -- by "doing any
25 work" --

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1 BY MR. HYDE:

2 Q. Any kind of epidemiological work or any
3 kind of studies that your business conducts which,
4 I believe, includes risk analysis; is that right?
5 You do do risk analysis?

6 A. Depends on how you define "risk
7 analysis." How do you define "risk analysis"?

8 Q. I think you have indicated in the Wing
9 deposition that your company does do some type of
10 risk analysis.

11 A. Well, to me some of the epidemiology
12 work is risk analysis.

13 Q. Whatever that risk analysis work is, are
14 you doing any risk analysis work or
15 epidemiological work for any of the oil and
16 chemical companies?

17 A. Again, there are a couple of things that
18 I was working on when I was at ENSR Health
19 Sciences, and I continued to, you know, work on
20 those projects.

21 Q. Through -

22 A. ENSR Health Sciences.

23 Q. What are those projects?

24 A. One example is Chevron is in the process
25 of updating a number of projects that I started
NELL MC CALLUM do ASSOCIATES. INC.

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1 many years ago. And they asked me to look at some
2 of the analyses, look at the draft reports and so
3 on.

4 Q. Any other projects involving oil or
5 chemical companies that Applied Health Sciences is
6 presently doing?

7 A. Working with Mobil, reviewing some of
8 their internal studies and so on.

9 Q. Any others?

10 A. Those are the ones I can think of.

11 Q. Has Applied Health Sciences, or is
12 Applied Health Sciences doing any work for the
13 EPA, OSHA, or NIOSH?

14 A. No.

15 Q. Is Applied Health Sciences doing any
16 work for Cal-OSHA?

17 A. No.

18 Q. Is Applied Health Sciences presently -
19 or in the past, has Applied Health Sciences worked
20 with any agency of any Federal, state, or local
21 government as it concerns epidemiological work?

22 A. No.

23 Q. Is Applied Health Sciences doing any
24 work for IARC?

2.5 A. I was contacted by someone in IARC.
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1 They asked me whether I would be interested in
2 working -- let me take a look at my CV.
3 IARC is thinking of doing a major study
4 on lead. And I have published some articles on
5 that. And they asked me whether I would be
6 interested in working with them, sharing the data
7 and so on. Still in the discussion stage.
8 MS. ARRAS: That was with whom?
9 THE WITNESS: International Agency
10 for Research on Cancer.
11 MS. ARRAS: Okay.
12 BY MR. HYDE:
13 Q. Are you doing any other work with IARC
14 other than the preliminary discussions on lead?
15 A. No.
16 Q. Are you presently doing any work for any
17 insurance companies? And this is Applied Health
18 Sciences.
19 A. Insurance companies?
20 Q. Yes.
21 A. No. I mean -
22 MR. McCALL: Are you talking
23 about -
24 BY MR. HYDE:
25 Q. Non-litigation work for insurance
NELL MC CALLUM a ASSOCIATES, INC.

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1 companies, is Applied Health Sciences doing that
2 kind of work?

3 A. No.

4 Q. Presently how does Applied Health
5 Sciences advertise? How does your business
6 advertise?

7 A. We don't advertise.

8 MS. ARRAS: Objection. No
9 foundation.

10 BY MR. HYDE: _

11 Q. Does Applied Health Sciences advertise?

12 A. It does not.

13 Q. You have no pamphlets or brochures?

14 A. We do not.

15 Q. You send out no letters to potential
16 clients explaining your services?

17 A. We don't. When people call us up, we
18 may tell them what we do. But we don't make cold
19 calls, if that's what you asked.,

20 MR. HYDE: Off the record.

21 (DISCUSSION OFF THE RECORD)

22 BY MR. HYDE:

23 Q. Dr. Wong, I have already looked at your
24 contract; and I believe you're charging Ms. Arras
25 \$280 an hour; is that -- well; Ms. Arras' client
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1 \$280 an hour; is that right?

2 A. Yes, sir.

3 Q. And that's for deposition time, as well

4 as research time?

5 A. Yes, sir.

6 Q. The \$280 an hour, is your fee different

7 for non-litigation matters versus litigation

8 matters?

9 A. No, there is no difference.

10 Q. And, obviously, you have a contract with

11 Ms. Arras' law firm -

12 (DISCUSSION OFF THE RECORD)

13 BY MR. HYDE:

14 Q. Dr. Wong, what is your understanding as

15 to what the other attorneys will be paying you?

16 Is it your understanding that they're going to be

17 paying you a portion of your fees relative to this

18 lawsuit?

19 A. I don't know that arrangement.

20 Q. What were your final charges as it

21 concerns the Carter case, which was in Virginia?

22 Do you remember that?

23 A. No, I don't.

24 Q. Do you have a ball-park figure,

25 approximately how much you charged 'in the Carter

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1 case?

2 A. Some of the work I did on those cases
3 was done when I was at ENSR. After I left ENSR
4 and started at Applied Health Sciences, I would
5 say about \$20,000 or so.

6 Q. And as it concerns the Wing case, what
7 are your charges to-date in that matter?

8 A. I think the number is still about the
9 same as I gave you last time at the deposition for
10 the Wing case.

11 Q. Now, as it concerns other testimony that
12 you have given -- not in deposition or trials, but
13 in hearings in front of hearing officers or in
14 front of regulatory agencies or legislatures or
15 Senates or anything such as that, can you tell me
16 what testimony you have given under those
17 situations? In other words, can you tell me about
18 all the times you've ever testified in front of
19 any Senate sub-committee or anything such as that?

20 MS. ARRAS: I'm going to object to
21 the compoundness of the question.

22 There's about four questions in there.

23 What do you want him -- I think
24 you need to lay a foundation. I'm going
25 to object to a lack of foundation and

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1 object to the compoundness -

2 MR. HYDE: I just thought it would

3 be a little bit easier if I phrased it

4 that way.

5 BY MR. HYDE:

6 Q. Have you ever testified in front of any

7 Senate sub-committee -

8 A. No.

9 Q. -- national?

10 A. No.

11 Q. Have you ever testified in front of any

12 House of Representatives sub-committee?

13 A. No.

14 Q. Have you ever testified in front of any

15 state Senate sub-committee of any state?

16 A. No.

17 Q. You were never involved in any of the

18 Proposition 65 hearings out in California; is that
19 correct?

20 A. No.

21 Q. Did you provide any comments relative to

22 Proposition 65 out here in California?

23 A. No.

24 Q. Have you ever testified in front of any

25 state legislature sub-committee?

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1 A. No.

2 Q. Have you ever testified in front of any
3 state agency, such as Cal-OSHA or any state
4 environmental agency within any state?

5 A. No.

6 Q. Have you ever testified under oath in
7 front of any county government?

8 A. No.

9 Q. Have you ever testified in front of any
10 proceeding involving any city government,
11 including cities, municipalities, even parishes, I
12 suppose?

13 MR. McCALL: Parishes are
14 counties.

15 MR. HYDE: Yeah, I understand
16 that. But I didn't put them as
17 counties.

18 A. No.

19 BY MR. HYDE:

20 Q. And you have testified in an OSHA
21 hearing before; that's correct, we've already
22 discussed that?

23 A. Yes, sir.

24 Q. Is that the only OSHA hearing you've
25 ever testified in .at that time?

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1 A. No. There was another one that I
2 testified on behalf of the American Paper
3 Institute.

4 Q. That involved the wood dust?

5 A. Yes, sir.

6 Q. And you testified on behalf of industry;
7 is that correct?

8 A. For the American Paper Institute.

9 Q. Did the American Paper Institute oppose
10 the wood dust standard suggested by OSHA?

11 A. I don't know whether they opposed it or
12 not.

13 Q. Well, what was the subject of your
14 testimony?

15 A. My focus was to go over some of the
16 findings on my opinion on the epidemiologic
17 studies of employees in that industry.

18 MR. HYDE: James, can you read
19 that last answer back, please?

20 (THE PENDING ANSWER WAS READ)

21 BY MR. HYDE:

22 Q. What were your opinions that you
23 expressed in front of OSHA concerning the proposed
24 standard on wood dust?

25 A. I don't remember exactly what I -- what
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1 my statement was.

2 Q. Since November in the Wing deposition,
3 have you given any other depositions relative to
4 any type of case?

5 A. No. You were the last one. You asked
6 me some tough questions.

7 Q. Are you presently retained as an expert
8 in any other cases other than the Wing case and
9 this Ellis case?

10 MS. ARRAS: Do you mean for
11 anybody in the world?

12 MR. HYDE: Yeah.

13 A. Yeah, I'm retained in a number of
14 cases.

15 BY MR. HYDE:

16 Q. And which of those cases have you been
17 designated as a testifying expert?

18 A. I don't know.

19 Q. You have not been told that you would be
20 expected to testify in any of the cases that
21 you've been retained as an expert?

22 A. I just don't recall whether I've been
23 told specifically or not.

24 Q. Any of the cases that you're presently
25 retained as an expert in, do they involve benzene,

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1 butadiene, or ethylene oxide?

2 A. There is one ongoing case that involves
3 ethylene oxide.

4 Q. Is that one of the sterilization
5 companies that have retained you?

6 A. Yes, sir.

7 Q. Is the alleged disease leukemia?

8 A. No.

9 Q. Is that some sort of neurological
10 disorder?

11 A. Yes, sir.

12 Q. Have you ever testified on behalf of
13 Ashland Oil?

14 MR. McCALL: In litigation, Keith?

15 MR. HYDE: Yeah. I suppose it

16 would have to be litigation because -

17 MR. McCALL: Because it was

18 eliminated. Okay.

19 BY MR. HYDE:

20 Q. Have you ever testified on behalf of
21 Ashland in any litigation matter?

22 A. I gave a deposition in that Carter case,
23 and Ashland was one of the defendants.

24 Q. Any other cases other than Carter that
25 you have testified on behalf of Ashland?

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1 A. That's the only one I can think of.

2 Q. Have you ever testified on behalf of
3 Amoco in any litigation matter?

4 A. Not that I know of.

5 Q. Have you ever testified on behalf of
6 Arco in any litigation matter?

7 A. No.

8 Q. Have you ever testified on behalf of
9 British Petroleum in any litigation matter?

10 A. No. .

11 Q. Have you ever testified on behalf of
12 Fina in any litigation matter?

13 A. I don't know. They may be a co-defendant
14 in some of the cases that I worked for. But I
15 have not worked with them directly.

16 Q. Have you ever testified on behalf of
17 Goodyear in any litigation matter?

18 A. No, not that I know of.

19 Q. Have you ever testified on behalf of
20 B.F. Goodrich in any litigation matter?

21 A. No.

22 Q. Have you ever testified on behalf of
23 Ameripol-Synpol in any litigation matter?

24 A. Never heard of them.

25 Q. Have you ever testified on behalf of

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1 Uniroyal in any litigation matter?

2 A. No.

3 Q. Have you ever testified on behalf of

4 Exxon in any litigation matter?

5 A. Not directly. Again, unless they were

6 one of the co-defendants in some of the cases that

7 I worked for.

8 Q. Have you ever testified on behalf of

9 Texaco in any litigation matter?

10 A. Not that I know of. .

11 Q. Have you ever testified on behalf of

12 Mobil Oil or Mobil Chemical in any litigation

13 matter?

14 A. I don't know.

15 Q. Do you think you might have?

16 A. I don't pay attention to the list of

17 defendants in the cases I work on. Sometimes

18 there may be a co-defendant and they may be part

19 of the group who retained me. But if they didn't

20 really specify that, I may not have known.

21 Q. Have you ever testified on behalf of

22 Unocal or Union Oil in any litigation matter?

23 A. Well, Unocal for sure, because they were

24 a party in the Carter case.

25 Q. Any others?

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1 A. That's the one that I can think of.

2 Q. Have you ever testified on behalf of
3 Occidental Petroleum, Oxy Chem, Oxy Petrochemical,
4 or any of the Oxy corporations?

5 A. Not that I know of.

6 MR. HYDE: Obviously, without
7 thinking about this case.

8 MR. SPEARS: Okay. Thank you.

9 MR. McCALL: Thank you, Keith.

10 MR. HYDE: Off the record.

11 (DISCUSSION OFF THE RECORD)

12 BY MR. HYDE:

13 Q. Have you ever testified on behalf of
14 Cities Service in any litigation matter?

15 A. Not that I know of.

16 Q. Have you ever testified on behalf of
17 Firestone in any litigation matter?

18 A. No.

19 Q. Have you ever testified on behalf of
20 Shell in any litigation matter?

21 A. The Carter case.

22 Q. Any others?

23 MR. McCALL: Who is the company,
24 Shell?

25 MR. HYDE: Shell.

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1 A. I have worked for Shell on a couple of
2 DPCT cases.

3 BY MR. HYDE:

4 Q. What was the alleged illnesses as a
5 result of exposure to DPCT?

6 MS. ARRAS: Can you repeat the
7 question? I didn't hear it.

8 BY MR. HYDE:

9 Q. What were the alleged illnesses
10 associated with exposure to DPCT?

11 A. One case was a gastric cancer.

12 Q. Did you find any association between the
13 gastric cancer and exposure to DPCT?

14 A. No, not according to the study that we
15 did.

16 Q. Do you recall testifying on behalf of
17 Shell in any other litigation matters?

18 A. I can't think of any.

19 Q. Have you ever testified on behalf of
20 Marathon in any litigation matter?

21 A. No.

22 Q. You have testified on behalf of Monsanto
23 in litigation matters; is that correct?

24 A. Yes, sir.

25 Q. And that was the Skeen case?

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1 A. Yes, sir.

2 Q. Have you been retained as an expert in
3 any other matters involving Monsanto?

4 A. I've been retained to work on one case.

5 Q. Is that the Walker case?

6 A. No.

7 Q. What case have you been retained to work
8 on?

9 A. I forget the name of the plaintiff, but
10 the case was on hold; so we're not doing anything
11 at this point.

12 Q. Is that case out of Houston?

13 A. Yes, sir.

14 Q. Was that a case with Dan Goforth,
15 Bob Scott, and Carlene Lewis?

16 A. No.

17 Q. Who are the defense attorneys that
18 you're working with in that case?

19 A. Larkin, Akin, Prim, Hall and something.

20 Q. Woodard, Prim & Hall?

21 A. I can't remember all those names.

22 Q. You don't recall what the case was?

23 A. No, I don't.

24 Q. Was it the Thomas case?

25- A. No, not Thomas.

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1 Q. Was it the Bickham case?

2 A. No.

3 Q. Have you ever testified on behalf of

4 PPG?

5 A. No.

6 Q. Have you ever testified on behalf of

7 Olin in any litigation matter?

8 A. What? What's that?

9 Q. Olin.

10 A. No. .

11 Q. Have you ever testified on behalf of

12 Gulf Chemical in any litigation matter, or Gulf

13 Oil or Chevron in any litigation matter, other

14 than, I believe you said, the Larson case?

15 A. What case is that?

16 Q. Didn't you say Larson?

17 MR. MCCALL: Wait. You just said

18 Gulf and then Chevron. I realize they

19 merged, but -

20 BY MR. HYDE:

21 Q. Okay. Let's start over. I was trying

22 to save time.

23 Have you ever testified on behalf of

24 Gulf Oil or Gulf Chemical in any litigation

25 matter?

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1 A. No.

2 Q. Have you ever testified on behalf of
3 Chevron or Chevron Chemical in any litigation
4 matter?

5 A. Yes.

6 Q. And that was a benzene case; isn't that
7 correct?

8 A. The Ryan case.

9 Q. And the alleged illness was acute
10 myelogenous leukemia? .

11 A. Yes, sir.

12 Q. Have you worked with Chevron in any
13 other litigation matters other than that case?

14 A. No.

15 Q. Have you ever testified on behalf of
16 Eastman Kodak in any litigation matter?

17 A. No.

18 Q. Have you ever testified on behalf of
19 Tennessee Eastman in any litigation matter?

20

21 Q. Have you ever testified on behalf of
22 Rohm & Haas in any litigation matter?

23 A. No.

24 Q. Have you ever testified on behalf of
25 Conoco in any litigation matter?

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1 A. No.

2 Q. Have you ever testified on behalf of
3 DuPont in any litigation matter?

4 A. No.

5 Q. Have you ever testified on behalf of
6 .Allied Chemical in any litigation matter?

7 A. No.

8 Q. Have you ever testified on behalf of
9 Union Carbide in any litigation matter?

10 A. No. .

11 Q. Have you ever testified on behalf of
12 Mitsubishi on any litigation matter involving
13 toxic tort?

14 A. No.

15 (DISCUSSION OFF THE RECORD)

16 BY MR. HYDE:

17 Q. Dr. Wong -

18 MS. ARRAS: I would just like to
19 clarify that the doctor testified
20 earlier that he's not sure of all the
21 named defendants in any particular
22 case. So, these are based on his
23 recollection of the actual testimony for
24 particular clients or defendants as
25 opposed-to -- it's possible that some of

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1 these defendants may have appeared on
2 the caption or been part of some type of
3 group defense effort that he's not aware
4 of. I just want to clarify that.

5 BY MR. HYDE:

6 Q. Okay.

7 A. At least those were not parties
8 directly -- the ones that I worked with directly.

9 Q. Back on the Monsanto case that you're
10 presently involved in, what was the alleged
11 chemical to cause whatever disorder was involved?

12 A. Paint.

13 Q. What's the alleged disease or problem
14 with the plaintiff?

15 A. Leukemia.

16 Q. Do you have a percentage of the amount
17 of time you have testified for defendants versus
18 plaintiffs, like 99 to 1 or something like that?
19 MS. ARRAS: Could you clarify

20 "testify"? Do you mean at depositions
21 or at trial?

22 MR. HYDE: Depositions or at
23 trial.

24 A. I have not given any deposition or trial
25 testimony for plaintiffs at this point.

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1 BY MR. HYDE:

2 Q. Have you ever testified that a
3 plaintiff's condition was caused by the work
4 environment or chemical agent that he was alleged
5 to have been exposed to?

6 A. Yeah, there was one case that I worked
7 on several months ago. The conclusion was the
8 medical condition was caused by the exposure.

9 Q. What was the alleged exposure?

10 A. He was exposed to some cleaning fluids.

11 Q. What was the alleged disease?

12 A. Pulmonary irritation.

13 Q. But in that case you did not testify; is
14 that correct?

15 A. No. I don't know what happened. I
16 think they settled the case or whatever.

17 Q. So, as it comes down to testifying, you
18 have never testified that a plaintiff's condition
19 was caused by a work environment?

20 A. That was my answer to you.

21 Q. Well, you provided expert opinions to
22 attorneys. But my question is, did you ever
23 testify that a plaintiff's condition was caused by
24 a work environment?

25 A. My answer is no.

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1 Q. Dr. Wong, let's go over again your
2 definition of 'epidemiology.'" Would you give it
3 to me?

4 A. 'Epidemiology' is the study of the
5 distribution and determinants of diseases in human
6 populations. -

7 Q. What is the purpose of conducting an
8 epidemiological study?

9 A. Well, as the definition implies, the two
10 major components in any epidemiologic-research,
11 one is to identify the high risk group in the
12 population with certain disease, find out the
13 distribution of the disease in the population.
14 The second component is to determine the
15 risk factors responsible for the high rate of
16 disease in that particular population.

17 Q. And why would someone want to identify
18 risk factors in a population?

19 A. So we can reduce the risk factor.

20 Q. Therefore, epidemiology is a very
21 important tool in public health?

22 A. Absolutely.

23 Q. Have you ever suggested that a company
24 perform an epidemiological study of its work force
25 and then that study not be conducted?

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1 MS. ARRAS: If you know.

2 A. No, I cannot think of any examples.

3 (DISCUSSION OFF THE RECORD)

4 BY MR. HYDE:

5 Q. Dr. Wong, I would like to start with the
6 exhibits listed in Deposition 3A. Would you
7 please read for the record what documents are
8 contained in Deposition 3A? And when you come to
9 correspondence from the attorneys, if you just
10 want to say "correspondence from attorneys,"
11 that's fine. We don't have to go any further than
12 that.

13 A. Mostly they are correspondence letters.

14 There are some notes that I made to myself on this
15 case, some notes that I took during phone
16 conversations. That's some sub-parts in 3A.

17 Q. I see a butadiene reference. Is this a
18 list of references that you put together?

19 A. No. This is a list that I received from
20 Barbara Arras. Actually, I think it's an exhibit
21 of Dr. Gardner.

22 Q. So, you might have received this
23 document from John Tyler as it concerns the Wing
24 case; is that right?

25 A. I-don't remember.

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1 Q. Dr. Wong, would you please read the
2 exhibits that are included in Deposition Exhibit
3 Wong 3B?

4 A. 3B?

5 Q. Yes.

6 A. Basically, there are two reports from
7 Nancy Culver, dated October 4th, 1991, and then
8 another one dated September 9th, 1991. And then
9 there is -- on top of that there is also a map.
10 (DISCUSSION OFF THE RECORD)

11 BY MR. HYDE:

12 Q. Did you read Nancy Culver's report?

13 A. I did read through them.

14 Q. Did you see anything in Nancy Culver's
15 report that you disagree with?

16 A. I don't have any foundation to disagree
17 with her report. But I don't find her report very
18 informative, either.

19 Q. Dr. Wong, please go on over with the
20 names of the papers that are included in
21 Deposition Exhibit No. 4.

22 A. How do you want me to do this?

23 Q. Just give the names of all the articles
24 that are contained in Deposition Exhibit No. 4.
25 Just read them out.

NELL MC CALLUM s ASSACIATFS. Mr.

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1 A. Just the authors' names?

2 Q. No. No. Just the title -

3 A. The title?

4 Q. Yes.

5 A. There's a lot of them.

6 Q. There's a lot of authors, too. Which

7 would you rather do? It doesn't matter to me.

8 A. I think it would be easier just to -

9 just the title.

10 Q. Well, give me the title and the first

11 author.

12 A. Okay. "Lymphocytic Leukemia and

13 Exposures to Benzene and Other Solvents in the

14 Rubber Industry," by Arp, A-r-p, 1983.

15 Q. Go ahead and give me the date, too.

16 Next article?

17 A. The next one is just a couple of pages

18 from the nosology book published by the U.S.

19 National Center for Health Statistics on the ICT

20 code for lymphatic and hematopoietic cancer.

21 Q. Okay. The next paper?

22 A. The next one is a chapter titled

23 "Non-Hodgkin's Lymphoma and Mycosis Fungoides,"

24 published by -- the author is Greene, G-r-e-e-n-e.

25 The next one is an article titled

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1 "Ionizing Radiation and Drugs in the Pathogenesis
2 of Lymphoid Neoplasia." The author is Finch.

3 Q. Now, I've got something that, in my
4 order, there was a "Non-Hodgkin's Lymphoma and
5 Mycosis Fungoides." I think they're split in two.

6 Is -

7 A. No, it's just the same thing. This
8 would be one chapter.

9 Q. And I think the "Ionizing Radiation and
10 Drugs and Pathogenesis of Lymphoid Neoplasia" by
11 Finch, you already listed that document?

12 A. Yes.

13 Q. The next article?

14 A. The next one entitled is "Critical
15 Review of Cancer Epidemiology in Petroleum
16 Industry Employees, with a Quantitative
17 Meta-Analysis by Cancer Site." The first author
18 is Wong.

19 The next one is "An Industry wide
20 mortality study of chemical workers occupationally
21 exposed to benzene. I General Results," by Wong.

22 Q. Hold on a minute. Let me separate
23 these.

24 The next article, please.

25 A. The next one is the same article,
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1 Part II of that article for nDose Response
2 Analyses," by Wong.
3 The next one, "Leukemia in Benzene
4 Workers," by Rinsky.
5 Next one, "Benzene and Leukemia, an
6 Epidemiologic Risk Assessment," by Rinsky.
7 The next paper is "Mortality among
8 Chemical Workers Exposed to Benzene and other
9 Agents," by Pierre Decoufle.
10 Q. Next article, please.
11 A. The next one is titled "Benzene and
12 Lymphoma," by Neal Young.
13 Then I have one piece of paper
14 summarizing some of the studies that I looked at.
15 Q. And this is a document that you put
16 together; is that correct?
17 A. Yes, sir.
18 Q. When did you put this document together?
19 A. Within the last month or two.
20 Q. You put it together as it concerns this
21 lawsuit and this is why you did it?
22 A. Yes, sir.
23 Q. The next article, please.
24 .A. The next article is "A Death-Certificate
25 Case-Control Study of Non-Hodgkin's Lymphoma and
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1 Occupation in Men in North Carolina". The first
2 author was Schumacher.

3 Q. That's a 1988 publication?

4 A. Yes, sir.

5 Q. What's the next article?

6 A. "Non-Hodgkin's Lymphoma: Case-Control
7 Epidemiological Study in Yorkshire, by Cartwright.

8 Q. That was a 1988 publication?

9 A. Yes, sir.

10 Q. Next article?

11 A. "Lymphatic and Hematopoietic Tissue
12 Cancer in a Chemical Manufacturing Environment,"
13 by Ott, 1989.

14 Q. Next article?

15 A. "The Epidemiology of Non-Hodgkin's
16 Lymphoma in the Northeast of Italy: A
17 Hospital-Based Case-Control Study." The first
18 author is Francheschi.

19 Q. 1989 publication?

20 A. Yes.

21 Then, again, I have notes summarizing
22 one study.

23 Q. That was a study you put together
24 relative to this lawsuit?

25 A. Yes, sir.

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1 Q. What is the next study?

2 A. Right after that there is a short
3 article entitled "Benzene and Lymphomas," by
4 Smith.

5 Q. What's the next article?

6 A. The next article is called "Lymphomas
7 and Occupational Benzene Exposure," by Vianna and
8 Polan.

9 Q. What is the date of that publication?

10 A. '79.

11 The next article is "Farming and
12 Mortality from Non-Hodgkin's Lymphoma: A
13 Case-Control Study." And Cantor is the author.
14 Next, "Farming Occupations and Mortality
15 from Non-Hodgkin's Lymphoma in Utah, a
16 Case-Control Study," by Schumacher.
17 Q. Next study?

18 A. "A Cancer Registry-Based Study of
19 Occupational Risk for Lymphoma, Multiple Myeloma,
20 and Leukemia," by Brownson and Reif.

21 The next one is "Selected Cancer
22 Mortality and Farm Practices in Iowa." And the
23 author -- the first author is Burmeister.

24 The next one is an abstract or Ph.D.
25 Thesis entitled "A Case-Control Study of
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1 Non-Hodgkin's Lymphoma,' by McDonald.

2 Q. A 1986 publication?

3 A. The thesis was dated 1986, but the
4 abstract appeared in 1987.

5 Q. Next article, please.

6 A. "Assessment of 1,3-Butadiene
7 Epidemiology Studies," by Ott, 1990.

8 Q. Have you ever worked with Mr. Ott?

9 A. Dr. Ott?

10 Q. Dr. Ott. _

11 A. Worked with him?

12 Q. Yes.

13 A. What do you mean by, "work with him"?

14 Q. Worked with him in any capacity as in
15 being employed in the same company?

16 A. No.

17 Q. Have you ever worked with Dr. Ott in
18 your work with ENSR Health Sciences or
19 Environmental Health Associates?

20 A. No.

21 The next one is "Mortality of a Cohort
22 of Workers in the Styrene-Butadiene Polymer
23 Manufacturing Industry, (1943-1982)," by
24 Matanoski.

25 Next article, Future Directions in
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1 Epidemiologic Studies of 1,3-Butadiene-Exposed
2 Workers," by Acquavella.

3 Q. Do you know John Acquavella?

4 A. I know him, yes.

5 Q. Did you ever do any work for

6 John Acquavella when he was at Exxon?

7 A. No.

8 Q. Have you ever done any work with John

9 Acquavella since he has been employed by Monsanto?

10 A. No.

11 Q. How do you know John Acquavella?

12 A. I run into him at meetings, you know,

13 meetings that are sponsored by the Society for

14 Epidemiologic Research.

15 Q. Have you ever discussed 1,3-butadiene

16 epidemiological studies with John Acquavella?

17 A. No.

18 Q. Have you ever discussed any

19 epidemiological studies associated with benzene

20 with John Acquavella?

21 A. No.

22 Q. What's the next document?

23 A. "Mortality of Workers in

24 Styrene-Butadiene Polymer Production," by

25 Matanoski, 1987.

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1 Next one, 'The paradox of butadiene
2 epidemiology," by Acquavella.

3 Q. I'm sorry. I don't have -

4 A. You don't have that one?

5 Q. Let me find it real quick. I seem to
6 have a -- after the Matanoski study, I have a
7 study by Ted Meinhardt?

8 A. I'm sorry. I missed that one.

9 Q. Okay. What's the title of that
10 document? .

11 A. Okay. The title of that document is
12 "Environmental epidemiologic investigation of the
13 styrene-butadiene rubber industry."

14 Q. And it's by Meinhardt?

15 A. Right.

16 Q. And the date of that publication is?

17 A. '82.

18 Q. Then the next document is the "Paradox
19 of butadiene epidemiology"?

20 A. Right.

21 Q. That, again, is by Acquavella?

22 A. Right.

23 Q. What is the date of that document?

24 A. '89.

25 Q. What's the next document?

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1 A. The next one is 'An Update of
2 Mortality among Workers at a 1,3-Butadiene
3 Facility - Preliminary Results," by Divine.

4 Q. And you know Dr. Divine, don't you?

5 A. Yes, sir.

6 Q. Describe your work with Dr. Divine over
7 the years. What have you done with her?

8 MS. ARRAS: If you have done any
9 work with Dr. Divine.

10 A. Specifically for Texaco we -- when I was
11 at ENSR -- I believe it was the last year -- Barbara
12 Divine was doing a study, an internal study. And
13 they asked us to run some names that they have,
14 check against some database that we have at ENSR,
15 to determine the vital status of those employees.
16 That was a very limited project.

17 But Dr. Divine was the chairperson at
18 the epidemiologic sub-committee at API. So, she
19 goes to all the API meetings for the project I'm
20 working on.

21 Q. And the next set of documents?

22 A. Okay. The title is "A cohort study of
23 mortality and cancer incidence in ethylene oxide
24 production workers," by Hogstedt, 1979.

25 The next one is "Mortality Among
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1 Ethylene Oxide Workers," by Robert Morgan.
2 Q. You used to work with Dr. Morgan, didn't
3 you?
4 A. Yes, sir.
5 Next one, "Mortality Study on Employees
6 Exposed to Alkylene Oxides, (Ethylene
7 Oxide/Propylene Oxide) and their Derivatives," by
8 Thiess.
9 Next one, "A Cohort Study on Cancer
10 Mortality of Ethylene Oxide Workers", by Bisanti.
11 Next one, A multicentre mortality study
12 of workers exposed to ethylene oxide," by
13 Kiesselbach.
14 The next one, "Workers exposed to
15 ethylene oxide: A follow-up study," by Gardner.
16 Q. 1989 publication?
17 A. Yes, sir.
18 Next study, "Men assigned to ethylene
19 oxide production or other ethylene oxide related
20 chemical manufacturing: A mortality study by
21 Greenberg.
22 Next study, "An epidemiological study of
23 cancer risk among workers exposed to ethylene
24 oxide using hemaglobin adducts to validate
25 enviromental exposure assessments," by Hagmar.
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1 The next one is called 'Mortality Among
2 Workers Exposed to Ethylene Oxide." First author
3 is Steenland, 1991.

4 Next one is called "Mortality Among
5 Workers Exposed to Ethylene Oxide," by Wong.
6 Then there is a response to that by
7 Steenland. We have two copies of the same thing
8 (indicating).

9 Q. Okay.

10 A. The last document is a report. The
11 title is "A Cohort Mortality Study of Workers
12 Potentially Exposed to Ethylene Oxide." The first
13 author is Wong.

14 Q. Is this the Publication No. 74 in your
15 curriculum vitae?

16 A. This is the one -- 74 -- this is a
17 publication. This is the report (indicating).

18 MR. HYDE: Off the record.

19 (DISCUSSION OFF THE RECORD)

20 BY MR. HYDE:

21 Q. Dr. Wong, the articles that we just went
22 over and various other documents in Wong
23 Deposition Exhibits 3A, 3B, and 4. Do those make
24 up all of the documents that form a basis of your
25 opinions relative. to this matter?

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1 A. Yes, sir.

2 Q. Are there any other documents that need
3 to be added to this list or to this stack as it
4 pertains to your opinions in this matter?

5 A. No, other than some general publications
6 or books on general concepts of epidemiology.

7 Q. What would those books be, if you could
8 tell me, the ones that may be -- books that
9 would -

10 A. It may be -

11 Q. -- form the basis of your opinion -

12 A. -- textbooks of epidemiology or basic
13 statistical textbooks.

14 Q. Do any of those books' titles or authors
15 come to mind?

16 A. No.

17 MR. HYDE: Now, I would like to
18 ask this question one time and go
19 through the companies once again. But
20 instead of having to ask the entire
21 question, which would be, "Have you ever
22 done any epidemiological studies with
23 any of these companies," such as A, B,
24 C, and D, if I could just say the
25 question one time, list the companies,
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1 and have him say "yes" or "no" would
2 that be okay with y'all?

3 MS. ARRAS: You asked him if he
4 consulted with any of these companies;
5 you asked him if he testified for any of
6 these companies. I don't really see the
7 distinction between performing an
8 epidemiologic study as separate from
9 consulting.

10 MR. HYDE: Well, there is a
11 difference in that I don't believe I
12 went over a list that may help him
13 recall, such as when we were talking
14 about oil companies, he just said that
15 he had done work with Texaco when I ran
16 across this article concerning Barbara
17 Divine.

18 So, that's why, in order to be a
19 little more accurate, I would like to
20 ask the question one time and then go
21 over these -

22 MR. McCALL: As part of the
23 question you will list all of the oil
24 companies and let him follow and at the
25 end --

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1 MR. HYDE: Oil and chemical.

2 MR. McCALL: -- and at the end he
3 can respond?

4 MR. HYDE: Yeah.

5 MR. McCALL: I got you. It will
6 save time.

7 MR. HYDE: Yeah, save time.

8 BY MR. HYDE:

9 Q. And if we get lost in here and you want
10 to stop, then, you know, let me know

11 MS. ARRAS: Did you want to make a
12 note, then -- if you're just going to run
13 through this, do you want him to stop at
14 the point in time when he can say "yes"
15 and we discuss it, or do you want -

16 MR. HYDE: He can say "yes" or
17 "no" to each name. How's that?

18 MS. ARRAS: All right.

19 BY MR. HYDE:

20 Q. Dr. Wong, have you ever worked with any
21 of the following companies concerning any
22 epidemiological study, or any of these particular
23 companies' workers? I'm just going to list the
24 names of these companies.

25 Ashland Oil?

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1 MS. ARRAS: Before you go on, I
2 would like to clarify the question. You
3 said worked with as it concerns
4 epidemiologic studies. Do you mean, did
5 Dr. Wong actually perform an
6 epidemiologic study for these people?

7 MR. HYDE: Or do any kind of
8 analysis of epidemiologic information or
9 assist them in developing an
10 epidemiological study.

11 MS. ARRAS: All right.

12 BY MR. HYDE:

13 Q. So, I will phrase the question. I'm
14 going to list various companies. And I would like
15 to know, "yes" or "no," whether you have worked
16 with any of these companies in any type of
17 epidemiological work.

18 Ashland Oil?

19 A. Not with Ashland Oil directly. Many
20 years ago when I was worked for Dr. Tabershaw, he
21 had a project from API. And Ashland was one of
22 the participants in that study.

23 Q. Amoco?

24 A. No.

25 Q. Arco?

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1 A. Arco was a participant in the CMA
2 benzene study for a little while.

3 Q. British Petroleum?

4 A. No.

5 Q. Fina?

6 A. No.

7 Q. Goodyear?

8 A. No.

9 Q. B.F. Goodrich?

10 A. No.

11 Q. Uniroyal?

12 A. No.

13 Q. Exxon?

14 A. Exxon is part of the API study that I'm
15 working on now.

16 Q. On the distribution workers?

17 A. Yes, sir.

18 Q. Texaco?

19 A. Other than that example I gave you.

20 Q. Mobil Oil or Mobil Chemical?

21 A. We have done a couple of epidemiologic
22 studies for Mobil in the past.

23 Q. Unocal?

24 A. No.

25 Q. Occidental Petroleum or any of the Oxy
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1 companies?

2 A. No.

3 Q. Cities Service?

4 A. No.

5 Q. Firestone?

6 A. No.

7 Q. Shell?

8 A. We have done a number of projects for

9 Shell.

10 Q. Did any of those projects involve the

11 chemical benzene or butadiene?

12 A. No.

13 Q. Marathon?

14 A. No.

15 Q. Monsanto?

16 A. No.

17 Q. Wasn't Monsanto part of the CMA study?

18 A. Oh, I'm sorry. Monsanto was. Monsanto

19 was one of the participants of the CMA benzene

20 study. .

21 Q. Other than the CMA benzene work with

22 Monsanto, have you conducted any other work with

23 Monsanto?

24 A. No.

25 Q PPG?

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1 A. Yes.

2 Q. What kind work have you done with PPG?

3 A. We are in the final stage of mortality
4 study for of PPG employees.

5 Q. Gulf?

6 A. Yes.

7 Q. That was the study that we have already
8 talked about -

9 A. Yes, sir.

10 Q. -- with C.P. Wen?

11 Chevron?

12 A. Yes.

13 Q. Eastman Kodak or Tennessee Eastman?

14 A. No.

15 Q. Rohm & Haas?

16 A. No.

17 Q. Conoco?

18 A. No.

19 Q. DuPont?

20 A. DuPont was one of the participants in
21 the CMA benzene study.

22 Q. Allied?

23 A. No.

24 Q. Union Carbide?

25 A. Yes.

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1 Q. Mitsubishi?

2 A. No.

3 (BRIEF RECESS)

4 BY MR. HYDE:

5 Q. Dr. Wong, earlier, I asked you what the
6 purpose was for conducting epidemiological
7 studies. And you indicated that one of the
8 reasons, the purposes, was to identify risk
9 factors associated with a disease in a population;
is that right?

11 A. Yes, sir.

12 Q. What are the risk factors associated
13 with non-Hodgkin's lymphoma?

14 A. I did some research on that. I have
15 summarized what I found in one of the documents in
16 Exhibit 3A -- it's probably the third or fourth
17 group of papers. You see some of this like
18 spreadsheet (indicating).

19 Q. Okay. Is it in that group where the
20 spreadsheet is?

21 A. Yes.

22 Q. What are the risk factors associated
23 with non-Hodgkin's lymphoma?

24 A. There is a page, says "Risk Factors of
25 Non-Hodgkin's Lymphoma." Farming has been found
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1 to be a risk factor in several studies. Family
2 history of cancer has also been identified as a
3 risk factor in a couple of studies. Smoking is
4 another risk factor. In terms of the three
5 chemicals that we are interested in in these
6 cases, none of them turned out to be a risk
7 factor.

8 Q. How about butadiene?

9 A. I said for all the three chemicals.

10 Q. Okay. Are there any drugs or
11 pharmaceuticals that you believe serve as a risk
12 factor for the development of non-Hodgkin's
13 lymphoma?

14 A. There is some discussion of that. I
15 took a quick look, but I didn't pay much attention
16 to that. That was in one or two articles that I
17 included in the folder labeled as non-Hodgkin's
18 lymphoma, non-occupational exposures.

19 Q. What is the disease process of
20 non-Hodgkin's lymphoma?

21 A. I am not an expert in that area.

22 Q. Do you know of any similarities between
23 non-Hodgkin's lymphoma and chronic lymphocytic
24 leukemia?

25 A. I don't know.

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1 Q. Do you know of any similarities between
2 non-Hodgkin's lymphoma and multiple myeloma?

3 A. They are different diseases.

4 Q. Do you know whether or not the disease
5 derives from the same cell type as it pertains to
6 the cells within the blood, such as "B" cell line
7 or anything such as that?

8 MR. McCALL: Counsel, the
9 disease -- again, can you specify -

10 MR. HYDE: Non-Hodgkin's lymphoma
11 and multiple myeloma.

12 MR. McCALL: Could you repeat the
13 question again for me, please?

14 BY MR. HYDE:

15 Q. Do you know of any similarity between
16 non-Hodgkin's lymphoma and multiple myeloma?

17 A. I don't know of any. And as an
18 epidemiologist, we will analyze those two as two
19 separate diseases.

20 Q. Is race a risk factor associated with
21 non-Hodgkin's lymphoma?

22 A. There may be some difference in terms of
23 non-Hodgkin's lymphoma rates between white and
24 non-white, as well as between male and female. In
25 the same package, there is a graph on the age -
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1 specific rates of non-Hodgkin's lymphoma for those
2 four race, sex groups.

3 Q. In the CMA benzene study, do you recall
4 whether there was an increased incidence of
5 non-Hodgkin's lymphoma as result of the CMA
6 benzene epidemiological studies?

7 MR. McCALL: Counsel, could you
8 define for me so that I understand what
9 you mean by "increased risk"?

10 MR. HYDE: "Increased risk" being
11 that greater than one.

12 MR. McCALL: Thank you.

13 A. Okay. In that study we analyzed the
14 data in a number of ways. In one analysis we have
15 the ICD code 200, which is lymphosarcoma. Then we
16 also have a separate group called "other lymphatic
17 tissue cancer," which we include 202, 203, and
18 208. And 203 is, of course, multiple myeloma.
19 But based on that particular program, I
20 would not be able separate 203. So, I lumped 203
21 with 202 and 200. Okay. So, there is not -- what
22 most other people would call non-Hodgkin's
23 lymphoma, per se.

24 Q. So, what's the answer to my question?

25 A. The answer to your question is: If we
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1 look at -- if we do not look at the group together
2 with multiple myeloma, which is clearly not part
3 of non-Hodgkin's lymphoma, if we look at
4 lymphosarcoma, per se, there was no increase for
5 that. There was no increase for lymphosarcoma.

6 Q. That's with categories 202, 203, and
7 what?

8 A. No. No. No. Lymphosarcoma is 200.

9 Q. Okay. Now, what about the categories
10 that lump 202 and 203 -- and I believe. there was
11 one other category. Is there an increased
12 incidence of diseases of those categories?

13 A. There was an elevation, but the increase
14 was not statistically significant.

15 Q. What was the elevation?

16 A. The number of groups within the study,
17 depending on which group you are talking about.

18 Q. Well, what was the number that reflects
19 an elevation in-the diseases of those categories?

20 A. That was looking at the group that was
21 exposed to benzene on a continuous basis. The
22 SMR, standardized mortality ratio, for that group
23 for the category of other lymphatic tissue cancer
24 was .144 -- or 144 percent.

25 Q. What was the "P" number there on that

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1 study?

2 A. I did not calculate the "P" value for
3 that specifically. But a 95 percent confidence
4 limit ranged from 39 to 370.

5 Q. Most likely is the "P" value .05?

6 A. It was not significant. Therefore, it
7 has to be greater than .05.

8 Q. Still, when you say elevated and was
9 144, you had 44 percent more incidence of that
10 classification of disease than was expected; is
11 that correct?

12 A. Right, based on very small numbers.

13 Q. Well, that was a CMA study, wasn't it?

14 A. Yes.

15 Q. It was certainly a large study, wasn't
16 it?

17 A. Large in terms of the number of people.

18 But for this particular disease, there were only
19 four deaths in that group.

20 Q. Well, certainly in one of the studies
21 that you referred to as chemical workers at Union
22 Carbide by Ott, certainly there were more chemical
23 workers involved in the CMA study than there were
24 in Ott's study at Union Carbide?

25 MR. McCALL: That's a question?

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1 MR. HYDE: Yes.

2 A. That's a question?

3 BY MR. HYDE:

4 Q. Yes.

5 A. No.

6 Q. You mean there were more man hours or
7 person hours in the Union Carbide Ott study than
8 there was in the CMA study?

9 A. I don't know what you mean by "man
10 hours." But the important thing to look at when
11 you compare how big a study is, you have to
12 specify what disease you're interested in.

13 In the example I just gave you, in my
14 study, in that continuously exposed group, I only
15 have four other lymphatic tissue cancer deaths.
16 And then on top of that, I have three
17 lymphosarcomas. So, altogether, including
18 multiple myeloma and ICD 208, I only have seven,
19 compared to 52 in the table that I gave you from
20 the Ott study.

21 Q. And the CMA studies were approximately
22 seven to eight companies or plants involved in the
studies; is that correct -

A. Yes.

Q. -- seven or eight plants?

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1 A. Yes.

2 Q. And out of seven or eight chemical
3 plants where benzene was manufactured, there were
4 only four lympho -- what was the exact title?

5 A. Other lymphatic tissue cancers.

6 Q. There were only four other lympho -

7 A. Lymphatic tissue cancers.

8 Q. -- lymphatic tissue cancers; is that
9 right?

10 A. Right.

11 Q. And yet at Cities Service, which is one
12 plant, there are four lymphatic cancers, being
13 these four men that we have talked about here that
14 are Plaintiffs; that's correct, isn't it?

15 A. Yes.

16 Q. Does that strike you odd as an expert in
17 the field of epidemiology?

18 MR. McCALL: Let me object to the
19 form of the question. Without
20 consideration of other confounding
21 factors or other risk factors being
22 taken into consideration in the total
23 picture -- I think limiting it solely to
24 employment history without
25 considerations of other facts is
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1 misleading and I object to the form of
2 the question.

3 A. The question is misleading from the
4 epidemiologic point of view. The study that I did
5 was based on mortality, death certificates. The
6 four cases that you mentioned, as far as I know,
7 out of the four, only one have passed away. So,
8 had we done a study for Cities Service, we would
9 have counted only one.

10 BY MR. HYDE:

11 Q. You don't think any of these people are
12 going to survive this disease, do you?

13 A. I don't know. But you don't count that
14 until the death occurs. And by then you have a
15 lot more person years. It's not a matter of how
16 many people you have in the study. It's also a
17 function of how long you follow those people.

18 Q. Let me see if I understand this
19 correctly. So, right now the only statistic that
20 would have been counted would have been
21 Mr. Talbott, and you would not have counted
22 Mr. Lilly, Mr. LeBlanc, and Mr. Ellis; is that
23 correct?

24 A. If we were going to do a mortality
25 study, yes.

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1 Q. Have you ever studied a plant or a group
2 of plants where you have identified four
3 non-Hodgkin's lymphomas in that particular plant,
4 be they dead or alive?
5 MR. McCALL: Counsel, once again,
6 you're excluding any other factors that
7 these people may have other than
8 employment at one location?
9 MR. HYDE: Yes.
10 MR. McCALL: I want to object to
11 the form of the question as misleading
12 again.
13 Go ahead and answer it, if you
14 can, Dr. Wong.
15 A. When you say I have done a study, you
16 mean -- you've limited that to studies that I have
17 done?
18 BY MR. HYDE:
19 Q. Yeah, that you've participated in.
20 A. The study that I did for Chevron out
21 here in the Bay area, the refinery out here in the
22 Bay area, plus the refinery down in the Los
23 Angeles area, we observed 17 lymphosarcomas.
24 Q. Was that an excess number?
25 A. Well, 17 compared to an expected of
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1 13.4.

2 Q. So, what do you have, about a 25 percent
3 excess?

4 A. So, there was slight excess. But that
5 was not statistically significant.

6 Q. Why did you not include that study in
7 your analysis that I'm looking at in Exhibit 3A,
8 which is the spreadsheet, it looks like from Lotus
9 or something such as that?

10 A. Oh, I have that. It's on a separate
11 piece of paper.

12 Q. But when it goes to risk factors, you
13 don't have benzene -- under the benzene category,
14 you don't list the Chevron study that you just
15 referred to. Why is that?

16 A. Because that's -- there are about 20 or
17 so studies. And there's no way I can fit all of
18 that in there.

19 Q. Well, did you only pick the low ones to
20 put in the risk factor analysis under benzene or -

21 A. No. If you look at this table -- this is
22 part of the paper that I wrote in 1989, the meta
23 analysis, summarized all the studies on refinery
24 workers. That is a separate analysis.

25 Q. That's Page 305?

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1 A. 302.

2 Q. Okay. Let me turn to that page real
3 quick.

4 On Page 302 from the Wong and Raab
5 study, there's one, two, three, four, -- five
6 studies that indicate an increased incidence of
7 lymphosarcoma; is that right?

8 A. Yeah. And there were nine that show a
9 deficit.

10 Q. Okay. Then on the next page is
11 mortality from other lymphatic tissue.

12 A. Right.

13 Q. And on that -- what do you consider other
14 lymphatic tissue cancer? What would that include?

15 A. As I told you, that would include ICD
16 code 202, 203, and 208.

17 Q. And that would include non-Hodgkin's
18 lymphomas; is that right?

19 A. 203 -- no. 202 is part of non-Hodgkin's
20 lymphoma. 203 is multiple myeloma. And 208 is
21 miscellaneous categories.

22 Q. As far as the disease multiple myeloma,
23 you don't know whether that disease derives from
24 the same cell type, B-cell line of -

25 A. No, I don't know; but nobody count that
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1 as part of non-Hodgkin's lymphoma.

2 Q. But on Page 305 of the Cancer
3 Epidemiology and Petroleum Industry, there are
4 one, two, three -- thirteen studies of which ten of
5 those studies indicate an elevated incidence of
6 deaths from lymphatic tissue cancer; isn't that
7 right?

8 A. Yes. But the proper way to look at that
9 table is to look at the bottom line, 1.15. That
10 is the overall SMR when you combine all those
11 studies.

12 Q. Still, the incidence is increased over
13 what was expected as it relates to the total
14 number of lymphatic tissues cancers in the
15 petroleum industry?

16 A. It's a non-significant increase.

17 Q. Just by chance?

18 A. In other words, that small increase
19 could have been due to chance.

20 Q. And that small increase was reflected in
21 ten separate studies; is that right?

22 A. I'm not so sure you can argue it that
23 way. When you combine the result, there is more
24 increase.

25 Q. Now, looking at -- this is
your meta

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1 analysis; is that right?

2 A. Yes, sir.

3 Q. Do you know Kaplin, who is noted on the
4 third report from the top? Do you know that
5 investigator?

6 A. I know Dr. Kaplin, yes.

7 Q. Have you ever talked with Dr. Kaplin
8 concerning the use of his study in any meta
9 analysis?

10 A. No.

11 Q. Do you know Hanis, H-a-n-i-s?

12 A. I know her, yes.

13 Q. Is it a doctor?

14 A. Yes.

15 Q. Have you ever discussed with Dr. Hanis
16 your use of her study, or Exxon's study, in your
17 meta analysis?

18 A. No.

19 Q. Next is Dr. Wen at Gulf Oil, or now
20 Chevron. Have you ever discussed with Dr. Wen the
21 use of his report in your meta analysis?

22 A. No.

23 Q. The next study is the Enterline,
24 Henderson study. Have you ever discussed with
25 them your use of their report in meta analysis?

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1 A. No.

2 Q. The next study is McGraw of the Shell
3 refinery at Wood River. Have you ever discussed
4 with McGraw the use of that report in your meta
5 analysis?

6 A. No.

7 Q. The next study is Joyner, of the Shell
8 Deer Park refinery. Have you ever discussed with
9 Joyner the use of their report in your meta
10 analysis?

11 A. I did not use that report in the meta
12 analysis.

13 Q. I'm sorry.

14 A. There was a blank entry.

15 Q. The next two are two studies by Divine,
16 et al. Have you ever discussed with Dr. Divine
17 the use of those studies in meta analysis?

18 A. No, sir.

19 Q. The next study was by Rushton and and
20 Alderson. Do you know those authors?

21 A. I know Dr. Rushton.

22 Q. Have you ever discussed with Dr. Rushton
23 the use of this study in your meta analysis?

24 A. No, I have not.

25 Q. The next study was with Christie in the
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1 facility in Australia. Do you know Christie?

2 A. No.

3 Q. So, therefore, you've never discussed
4 with Christie the use of their study in your meta
5 analysis?

6 A. No, sir.

7 Q. Who else has published a meta analysis
8 as it pertains to epidemiology in the petroleum
9 and chemistry industry, other than yourself?

10 A. I don't know of any.

11 Q. Where else has meta analysis been used
12 in epidemiology?

13 A. There are quite a few examples in the
14 literature.

15 Q. Wouldn't you agree with me that meta
16 analysis is still an experimental technique?

17 A. Oh, no. It has been used for a long,
18 long time, accepted by the community, scientific
19 community.

20 Q. Do you know of any epidemiologists who
21 disagree with the use of meta analysis -

22 A. I'm sure -

23 Q. -- and its validity of -- of meta
24 analysis?

25 A. See, when you say -meta analysis," it
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1 means different things to different people. There
2 is some misuse of, you know, meta analysis. But
3 the way I use meta analysis is perfectly
4 acceptable.

5 To give you an example, Sir Richard Dahl
6 used the same procedure that I use, except I used
7 the procedure a couple of years before he did -
8 the grandfather of epidemiology.

9 Q. What were the criteria for inclusion of
10 workers in Barbara Divine's study of the Texaco
11 facility? In other words, how long did an
12 employee have to work at the Texaco plant before
13 that employee would be counted in the
14 epidemiological study?

15 MS. ARRAS: Which study are you
16 referring to?

17 THE WITNESS: (Indicating)

18 A. They had two -- the Texaco group has two
19 studies that I included in the meta analysis. One
20 was on refinery; and entry criteria was five
21 years, at least five years of work. The other
22 study, the second study, was on production and
23 pipeline workers. And the entry criteria was six
24 months'.

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1 BY MR. HYDE:

2 Q. So, right there, just within those two
3 studies, you have different parameters associated
4 with the population that was studied; that's
5 correct, isn't -

6 A. But that's -- that happens all the time,
7 even within a single study. You have people who
8 worked there for a year. You have people who
9 worked there for five years or 20 years or
10 30 years.

11 Q. But I guess if
you have a study group in
12 one study that only includes workers that worked
13 there for five years and another study that only
14 includes workers who worked more than six months,
15 then you're going to exclude some workers in the
16 second study who may have worked at the plant
17 three and a half years and been exposed to
18 benzene; that's correct, isn't it?

19 A. Yes.

20 Q. Now, the Mobil study concerning
21 epidemiology and the refinery or petrochemical
22 plant required -- isn't it just up one day in the
23 facility?

24 A. Did you say Mobil?

25 Q. Mobil. Wasn't that the requirement?

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1 A. One year.

2 Q. One year.

3 Have you ever seen any studies that
4 would allow persons in the study population who
5 have just worked one day in the plant?

6 A. I think Dr. Rinsky's study use a very
7 short definition. It may be one day.

8 Q. Any others?

9 A. I can't think of any studies that would
10 have such a short employment requirement.

11 Q. With the different parameters that these
12 studies, these each individual studies utilize,
13 doesn't it become a factor of mixing apples and
14 oranges at some point in time when you start doing
15 this meta analysis?

16 A. Oh, absolutely not, because you have
17 that same kind of difference in length of
18 employment within any single study.

19 Q. Don't you have different levels of
20 chemical exposures in different plants?

21 A. That's also true within a study.

22 Q. Don't you have some plants that include
23 administrative personnel that were not exposed to
24 benzene?

25 A. By and large, most of those studies
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1 would include blue-collar workers.

2 Q. But don't some of the studies include
3 administrative personnel who are not exposed to
4 benzene?

5 A. Well, remember, we're talking about
6 studies of refinery workers. Some of them might
7 not have been exposed to benzene to start with.

8 Q. And they're included in the study?

9 A. Oh, yeah.

10 Q. And I guess what I'm saying is, for
11 every one of the studies that you included, how
12 did you determine whether administrative workers
13 were included in the survey, by just reading the
14 survey?

15 A. By reading the paper.

16 Q. But you didn't have the raw data; is
17 that right?

18 A. No, we did not have the raw data.

19 Q. Has there ever been any letters to the
20 editors of any journal that you have published, or
21 meta analysis, wherein your meta analysis was
22 criticized?

23 A. There was a letter to the editor
24 - commenting on some aspects of the study, the
25 analysis.

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1 Q. Did you write a letter back to the
2 editor pointing out why your study was correct; in
3 other words, disagreeing with the person who
4 disagreed with you?

5 A. I responded to that letter, yes.

6 Q. Who paid for you to do the meta analysis
7 that's included in Attachment 3A, which you and
8 Jerry Raab wrote? Who actually funded that study?

9 A. That research was partly funded by
10 Mobil. But I also put in a lot of my own time.

11 Q. Other than the second largest oil
12 company, Mobil, funding this publication and
13 study, was there anybody else who assisted in
14 funding?

15 MR. McCALL: Let me object to the
16 form of the question insofar as it
17 implies that Mobil -- you failed to
18 include "partially funded" in your
19 question and you leave the implication
20 that it was funded totally. And I
21 object to the question again as
22 misleading.

23 BY MR. HYDE:

24 Q. And my question is: Was there anybody
25 else who provided funding for the study, this meta
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1 analysis?

2 A. No, sir.

3 Q. Now, you put in some time in the study
4 that you were not compensated for; is that
5 correct?

6 A. I put in some of my own time writing a
7 paper and so on.

8 Q. What percentage of your time did you
9 receive compensation for relative to the meta
10 analysis that you and Jerry Raab published?

11 A. I cannot tell you.

12 Q. Well, would 90 percent of your time have
13 been compensated by Mobil?

14 A. I don't know.

15 Q. Well, would it be fair to say that a
16 majority of your time was compensated by Mobil; in
17 other words, 50 percent of your time?

18 A. I don't know. I cannot give you an
19 estimate.

20 Q. You were working for ENSR Health
21 Sciences at that time?

22 A. Yes, sir.

23 Q. -- when you published this
24 If Dr. Raab has testified that Mobil
25 funded this study, do you disagree with his
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1 testimony?

2 MR. McCALL: Let me object to the
3 form of the question insofar as it
4 assumes facts that are not yet in
5 evidence. And to that extent, I will
6 object to it.

7 You can answer it if -

8 A. What was the question?

9 BY MR. HYDE:

10 Q. Do you have any reason to disagree with
11 Dr. Raab if Dr. Raab has testified under oath
12 before that Mobil funded that meta analysis that
13 was written by you and Jerry Raab?

14 MR. McCALL: Same objection. Go
15 ahead and answer.

16 A. I did say that Mobil funded the project,
17 but I also put in a lot of my own time. That's
18 what I said.

19 BY MR. HYDE:

20 Q. How much money did Mobil spend for the
21 meta analysis that you and Jerry Raab authored?

22 A. I don't remember.

23 Q. Several hundred thousand, wasn't it?

24 A. Oh, no.

25 Q. Was it more than \$100,000?

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1 A. Less.

2 Q. Do you know whether it was more than
3 \$50,000?

4 A. Most likely it's around that area. I
5 don't remember the number exactly, but certainly
6 less than 100,000.

7 Q. Now, on these studies of non-Hodgkin's
8 lymphoma from the North Carolina plant, the
9 Schumacher studies, do you know whether benzene is
10 a product that is utilized at any of the
11 facilities where these North Carolina workers were
12 employed?

13 A. I think you're confused there. It's not
14 a study of only workers. It's what we call a
15 population based case control study.

16 Q. Well, what I'm asking you is, can you
17 name me one refinery or chemical plant that has a
18 benzene unit in North Carolina?

19 MS. ARRAS: I'm going to object
20 because it assumes facts -- it assumes
21 that the only source of benzene exposure
22 would be a chemical plant or a refinery.

23 BY MR. HYDE:

24 Q. Dr. Wong, you can answer.

25 A. I don't know of any, and I don't think
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that question makes much sense in this case, in
2 this study, because it's a population based case
3 control study. Those people could have been
4 exposed to benzene in Beaumont and then later on
5 moved to North Carolina and lived there and died
6 there. So, that's not very meaningful.

7 BY MR. HYDE:

8 Q. But you don't know that any of these
9 North Carolina workers or individuals were exposed
10 to benzene, do you?

11 A. According to the paper, yes, they were.

12 Q. What level of benzene were these workers
13 exposed to?

14 A. I don't know what level.

15 Q. Is that important for you to know what
16 level of benzene these people were exposed to?

17 A. Well, that would be the next level of
18 questions. Number one, you find out whether there
19 is an association with certain exposure or not.
20 And if there is, then you would like to get a dose
21 response relationship. But in this case there is
22 no relationship between benzene exposure and
23 non-Hodgkin's lymphoma, period.

24 Q. My question is, in identifying a risk
25 factor, don't you have to know whether or not
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1 these workers were ever exposed to benzene?

2 A. She did look into that.

3 Q. My question is, what did the author find

4 as it concerns the level of benzene exposure to

5 these workers?

6 MR. McCALL: Counsel, again, we're

7 talking about Schumacher?

8 MR. HYDE: Yes.

9 A. She did not find any increased risk

10 among people whose occupation would expose -- would

11 exposed them to benzene, and she stopped there.

12 BY MR. HYDE:

13 Q. Would you agree with me that these

14 workers in North Carolina were not pipefitters,

15 boilermakers and operators in refineries and

16 chemical plants where benzene, butadiene, and

17 ethylene oxide is present?

18 A. No. They might as well be some of them.

19 Q. But you don't know the level of

20 exposure; isn't that right?

21 A. No, I don't.

22 Q. Are we comparing apples and oranges when

23 we compare workers in North Carolina to workers in

24 the Calcasieu Parish, Louisiana, as it pertains to

25 the level of benzene exposure, butadiene exposure,

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1 and ethylene oxide exposure?

2 MR. McCALL: Let me object to the
3 form of the question insofar as your use
4 of Calcasieu Parish. It implies that
5 there's a study in there. And I think
6 the question is misleading and wrong and
7 objectionable as to form.

8 MS. ARRAS: I'll object also in
9 the sense that we don't have any data on
10 Calcasieu Parish workers as-a group; so
11 there is no way to make the comparison.

12 BY MR. HYDE:

13 Q. Okay. You can still answer my
14 question.

15 A. Yeah, I can answer that question.

16 As I said a few minutes earlier, some of
17 the people who died in North Carolina could have
18 worked at refineries elsewhere. I want to make it
19 very clear so that you will not mislead me again.

20 Q. And they could have been astronauts who
21 went to the moon, couldn't they -

22 A. Yes. Yes.

23 Q. -- for all we know?

24 A. Oh, yeah.

25 (DISCUSSION OFF THE RECORD)

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1 BY MR. HYDE:

2 Q. Okay. I would like to go with you
3 through the various facts that you have relative
4 to Misters Lilly, Talbott, LeBlanc, and Ellis.
5 And I think you have a document somewhere that
6 might be of assistance to you?

7 A. Right.

8 Q. How old is Mr. Lilly?

9 A. He was born in 1927. At 6:00 o'clock I
10 will not do a simple calculation.

11 Q. Mr. Talbott, how old was he when he
12 passed away?

13 A. When did he pass away, last month? So,
14 1991 he passed away. He was born in 1919. So,
15 that makes him 42 now -- I can't think straight
16 anymore.

17 MR. HYDE: I won't ask ages.

18 MS. ARRAS: Don't ask -- I mean,
19 the information is contained on an
20 exhibit that's marked in the record and
21 filed. So, I really don't think that
22 he -- I object to -

23 THE WITNESS: And my blood sugar
24 is running very low.

25 (DISCUSSION OFF THE-RECORD)

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1 A. He was 72.

2 BY MR. HYDE:

3 Q. And the age of Mr. LeBlanc?

4 A. He was born in 1925.

5 Q. And the age of Mr. Ellis?

6 A. He was born in 1923.

7 Q. And were any of these -- of course, you
8 realize these are the Plaintiffs involved in this
9 lawsuit?

10 A. Yes, sir.

11 Q. And are any of these individuals -- well,
12 let's say, what is the race of Mr. Lilly?

13 A. He's black.

14 Q. How about Mr. Talbott?

15 A. White.

16 Q. Mr. LeBlanc?

17 A. White.

18 Q. And Mr. Ellis?

19 A. White.

20 Q. What is your understanding of the
21 smoking history for Mr. Lilly?

22 A. There was a range in terms of pack
23 years, somewhere between 79 to 106
pack-years.

24 Q. Between 79 and 106 pack-years?

25 A. Pack-years.

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1 Q. And what was the smoking history
2 associated with Mr. Talbott?
3 A. 15 pack-years.
4 Q. Would you consider Mr. Talbott a smoker?
5 A. Yes.
6 Q. At what level do you consider an
7 individual a smoker based on pack-year history?
8 A. In most epidemiologic studies, if
9 someone smoked more than 100 cigarettes in his or
10 her lifetime, he or she would be considered as a
11 smoker, or former smoker if he or she quit.
12 Q. At what point in time -- in other words,
13 after how many years after a person quit smoking
14 do you consider that person to be a non-smoker?
15 A. Never.
16 Q. What was the smoking history associated
17 with Mr. LeBlanc?
18 A. More than 43 pack-years.
19 Q. And what was the smoking history for
20 Mr. Ell is?
21 A. 60 to 90 pack-years.
22 Q. What is your understanding of Mr. Lilly's
23 occupation or craft?
24 A. At Cities Service?
25 Q. Yes.
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1 A. He was a boilermaker.

2 Q. Anything else?

3 A. That's all I have. That's all I put
4 down.

5 MR. McCALL: Counsel, let me -

6 BY MR. HYDE:

7 Q. You do not have that Mr. Lilly was a
8 laborer at the Cities Service refinery?

9 MR. McCALL: Counsel, let me
10 interject at this time. There is going
11 to be some information provided to him
12 prior to trial concerning employment
13 histories on some of these individuals.
14 I'm just telling you right now.

15 BY MR. HYDE:

16 Q. Dr. Wong, do you have any information to
17 indicate that Mr. Lilly was a laborer at the
18 Cities Service refinery?

19 A. I might have it in the materials that
20 was provided to me.

21 Q. Well, do you have it on your sheet right
22 there?

23 A. No, I don't have that.

24 Q. Did you read Mr. Lilly's deposition?

25 A. I have read -- I don't remember.

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1 Q. Well, you didn't -

2 A. I must have.

3 Q. Okay. You didn't bring with you today
4 any depositions in any of the exhibits that I saw;
5 that's correct, isn't it?

6 A. Yes, sir.

7 MS. ARRAS: I'd just like to
8 clarify for the record that for the sake
9 of the burdensomeness of bringing the
10 documents themselves, there are indexes
11 to various things that he has contained
12 in the exhibits so that you can
13 determine what he actually has received.

14 BY MR. HYDE:

15 Q. Did you read Mr. Lilly's deposition?

16 A. I must have.

17 Q. Did you put together that chart that's
18 in front of you right now?

19 A. Yes.

20 Q. What did you use to put together that
21 chart?

22 A. I read the deposition of -- different
23 pieces of paper. I made notes, and this is a
24 summary.

25 Q. Do you know whether Mr. Lilly ever
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1 worked in the laboratory?

2 A. Yes.

3 Q. Do you know what he did in the

4 laboratory?

5 A. He washed test tubes or containers that

6 they put samples in.

7 Q. He washed lab bottles; is that right?

8 A. Yes.

9 Q. Do you know that he washed a safety

10 man's shirt in pure benzene?

11 MR. McCALL: Let me object to the

12 form of the question. It assumes facts

13 that are not yet in evidence.

14 A. I don't know.

15 BY MR. HYDE:

16 Q. You never knew that?

17 A. No.

18 Q. Now, I would like for you to tell me

19 what your assumption was as it pertains to

20 Mr. Lilly's exposure to benzene at the Cities

21 Service refinery.

22 A. I have not made any assumptions.

23 Q. Do you know whether he was exposed to

24 benzene at the Cities Service refinery?

25 A-. To form my opinion, I don't need to make

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1 that assumption.

2 Q. Dr. Wong, you don't know what the
3 exposure level to benzene was in the Schumacher,
4 North Carolina epidemiological study; am I
5 correct?

6 A. Correct.

7 Q. Yet, there were at least 17 studies of
8 which most of those studies indicated an increased
9 incidence of lymphatic cancer. And you know that
10 these workers were exposed to benzene;. isn't that
11 right?

12 A. No, that's not right. We should never
13 have let lawyers interpret epidemiologic studies.
14 (DISCUSSION OFF THE RECORD)

15 BY MR. HYDE:

16 Q. Dr. Wong, isn't it a fundamental
17 parameter of an epidemiological study to know what
18 the cohort was exposed to?

19 A. Yes.

20 Q. Have you conducted any kind of analysis
21 of the incidence of non-Hodgkin's lymphoma at the
22 Cities Service refinery?

23 A. No, sir.

24 Q. Were you asked to do that?

25 A. No, sir.

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1 Q. Is that something that would assist you
2 in forming your opinions relative to the causation
3 of Misters Lilly's, Talbott's, LeBlanc's and
4 Ellis' non-Hodgkin's lymphoma?

5 MR. McCALL: I'm going to object
6 to the form of the question insofar as
7 it implies facts that -- at least two of
8 the Plaintiffs worked at the Cities
9 Service refinery, which I think is not
10 the case. It's objectionable as to form.

11 BY MR. HYDE:

12 Q. The Cities Service complex, we'll change
13 it that way, including PCI, have you done any
14 analysis of the Cities Service complex relative to
15 the incidence of non-Hodgkin's lymphoma amongst
16 the workers at that complex?

17 A. No, sir.

18 Q. Is that something that would assist you
19 in forming your opinion relative to this lawsuit?

20 A. Not necessarily.

21 Q. Why not?

22 A. Because we have quite a large number of
23 studies of people with similar exposure.

24 Q. And of those large numbers of studies,
25 most of those studies indicated an increased

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1 incidence of lymphatic cancer amongst the workers?

2 A. No, sir. That's not true.

3 Q. I've missed that? I'm wrong? Is that

4 right?

5 A. Yes, you are wrong.

6 Q. Okay. Let's go back to your meta

7 analysis paper again.

8 (DISCUSSION OFF THE RECORD)

9 BY MR. HYDE:

10 Q. You indicated you would not need to do

11 an epidemiological analysis of the Cities Service

12 complex and it probably would not be helpful to

13 you because of the large number of studies

14 associated with refinery and petroleum employees;

15 is that right?

16 A. I said it was not necessary to do a

17 study at the Cities Service complex in order to

18 arrive to an opinion in this case.

19 Q. Why?

20 A. Because there are studies, much larger

21 studies, of people with similar exposure.

22 Q. And those would be on Table XIV of your

23 study with Jerry Raab; is that correct?

24 A. Not just Table XIV, but Table XII on

25 Page 302.

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1 Q. Which category does non-Hodgkin's
2 lymphoma fall into, lymphosarcoma or lymphatic
3 tissue cancer?

4 A. Well, let me go over this one more
5 time. Lymphosarcoma is ICD code 200. Other
6 lymphatic tissue cancer includes ICD code 202,
7 203, and 208. Non-Hodgkin's lymphoma is the
8 combination of 200 and 202.

9 Q. Isn't it more specifically the
classification code 202, though?

11 A. No. 200 is more -- the major component
12 of non-Hodgkin's lymphoma is 200.

13 Q. But you will agree with me that other
14 lymphatic tissue cancer is also a category in
15 which non-Hodgkin's lymphoma falls into?

16 A. One small component of that.

17 Q. And of the 13 studies that you list in
18 Table XIV, 10 of those studies indicate an excess
19 of lymphatic tissue cancer?

20 A. That's. the way I teach my students not
21 to interpret literature review. Do not count how
22 many positive studies and how many negative
23 studies, because some studies are much larger than
24 the other and you don't give the same weights to
25 each study.

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1 Q. Well, you do that in your meta analysis.

2 A. No, I do not. I told you before, to
3 look at the bottom line. There is a summary,
4 standardized mortality ratio. That standardized
5 mortality ratio gives you the proper weights to
6 each study.

7 Q. And for Table XIV you have a 15 percent
8 increase in lymphatic tissue cancer; that is
9 correct?

10 A. That is correct.

11 Q. Okay. But you're saying it's not
12 statistically significant?

13 A. That's correct.

14 Q. At what "P" value would 1.15 SMR be
15 statistically significant?

16 A. For any SMR where the "P" value is less
17 than .05, then it becomes significant.

18 Q. Well, can you not adjust the "P" value?

19 If you're looking at the power -- if your "P"
20 value, let's say, was .40, would 1.15 then be -
21 could it be statistically significant?

22 A. I don't understand your question.

23 Q. Okay. Strike that.

24 Are you familiar with the
25 epidemiological studies associated with
NELL MC CALLUM 3 ASSOCIATES, INC.

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1 angiosarcoma?

2 MS. ARRAS: In what?

3 BY MR. HYDE:

4 Q. In vinyl chloride.

5 A. Which study?

6 Q. Any studies.

7 A. The one that I did, yes, I am familiar.

8 Q. The very first study, which I don't

9 remember the author's name right now -

10 A. Johnson?

11 Q. I don't remember.

12 MS. ARRAS: Are you talking first

13 chronologically?

14 MR. HYDE: Yes, chronologically.

15 BY MR. HYDE:

16 Q. -- that indicated a statistically

17 significant increase in deaths from angiosarcoma

18 from vinyl chloride, wasn't that from one

19 facility, one plant?

20 A. I don't know.

21 Q. Wasn't the initial questions about vinyl

22 chloride causing angiosarcoma the result of

23 questions from one physician concerning an excess

24 number of angiosarcoma deaths in a vinyl chloride

25 plant?

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1 A. I think you're getting into the area of
2 the utility of case reports. I would certainly
3 agree that case reports serve a very useful
4 purpose of setting priority of what your research
5 efforts should be. Looking back, you can always
6 choose some examples, saying that, see, we knew
7 that long before we do any epidemiologic studies.
8 But there are also counter-examples. In
9 those cases, subsequent epidemiologic studies
10 refute the earlier causation or association
11 suggested by case reports. We all have a 20/20
12 hindsight.

13 Q. As an epidemiologist, is it your opinion
14 that there is nothing significant or questionable
15 about four working men who have been diagnosed
16 with non-Hodgkin's lymphoma, all of whom worked at
17 the Cities Service complex?

18 A. Associated with that question, you have
19 got to ask yourself a whole bunch of other
20 questions; such as: How many people are involved,
21 how long a period you are looking at, how many
22 other confounding exposure these four people might
23 have in common, how many other work sites they
24 have been to.

25. Q. And those kind of questions could be
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1 answered by some type of mathematical analysis or
2 epidemiological-study; isn't that right?

3 A. Depending on what kind of data you
4 have. Some of those questions can be answered by
5 epidemiologic research.

6 Q. But you did not do any of that research
7 relative to these four working men's situations
8 and conditions out at the Cities Service complex;
9 isn't that right?

10 A. No, I did not.

11 (BRIEF RECESS)

12 BY MR. HYDE:

13 Q. Now, do you understand Mr. Lilly was a
14 boilermaker at Cities Service and a laborer and a
15 laboratory worker; you now understand that as part
16 of his occupational history?

17 A. Right.

18 Q. Do you have any opinion as to the level
19 of benzene exposure that Mr. Lilly would have had
20 in his work as a boilermaker at the Cities Service
21 complex, to benzene now?

22 A. Personal exposure?

23 Q. Yes.

24 A. No, sir.

25 Q. Do you have --

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1 MS. ARRAS: Excuse me. You said
2 as a boilermaker?

3 MR. HYDE: Yes.

4 MS. ARRAS: Okay. That's fine.

5 BY MR. HYDE:

6 Q. You did say that he was a boilermaker,
7 didn't you?

8 A. According to the notes I have, yeah.

9 Q. And your notes just didn't reflect his
10 laborer work, as well as his laboratory work?

11 A. It does.

12 Q. Oh, it does?

13 A. It does (indicating).

14 Q. But you have no opinion as to his extent
15 of benzene exposure while he was a boilermaker; is
16 that correct?

17 A. No.

18 Q. No, it's not correct?

19 A. Don't ask a double negative question.

20 Ask again.

21 Q. Do you have an opinion as to Mr. Lilly's
22 benzene exposure during the time when Mr. Lilly
23 was a boilermaker?

24 A. No, other than in general terms his
25 exposure would be similar to maintenance workers
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1 at a refinery.

2 Q. Other maintenance workers at that
3 refinery?

4 A. Not at that refinery, maintenance
5 workers at refineries in the petrochemical
6 industry.

7 Q. So, is it your opinion that Mr. Lilly's
8 benzene exposure as a boilermaker would be the
9 same as a boilermaker's benzene exposure at the
10 Exxon Baton Rouge or Baytown refinery?.

11 A. I won't pick that particular refinery.
12 I would say his exposure would be similar to the
13 average exposure of all the maintenance workers in
14 the studies that I rely on.

15 Q. Well, would Mr. Lilly's benzene exposure
16 be similar to a boilermaker's benzene exposure at
17 the Mobil refinery in Beaumont?

18 A. You're still picking one or two
19 particular refineries in the entire industry. I'm
20 not relying on one or two studies. I'm relying on
21 all the studies that have been published out there
22 in the literature. So, my database is much bigger
23 than just one or two refineries.

24 Q. Looking on Page 305 of your "Cancer
25 Epidemiology and Petroleum Industry," written by.
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1 you and Dr. Raab, the Beaumont refinery had an
2 SMR for lymphatic tissue cancer of 1.57, yet the
3 Exxon facilities had lymphatic tissue SMR's of
4 less than '1. How can you account for that?

5 A. That tells you occupational exposure is
6 most likely not a factor. There are other
7 confounding factors.

8 Q. Why would that tell you that?

9 A. Because it's not consistent. Had that
10 been a relationship between occupational exposure
11 in the industry, and that particular disease, then
12 you would expect to see a certain consistent
13 pattern.

14 Q. Isn't it also possible that the Exxon
15 facility used state-of-the-art engineering
16 controls, whereas the Mobil refinery did not use
17 state-of-the-art engineering controls and
18 . industrial hygiene practices relative to worker
19 exposure to benzene at the refineries? Couldn't
20 that be a factor?

21 A. I didn't know of that. And, remember,
22 we are talking about cohort studies, which we
23 include people exposed to the general environment
24 at the refinery all the way back to the 1920's
25 or '30's.

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1 Q. But you don't know the engineering and
2 industrial hygiene practices associated with the
3 Exxon facility versus those of the Mobil facility,
4 do you?

5 A. Not specifically, no.

6 Q. You don't know the difference of
7 exposure levels to the workers at the Mobil
8 refinery versus the workers at the Baton Rouge or
9 Baytown or Exxon refineries, do you?

10 A. I don't know specifically. .I don't
11 think that it's a major difference between the
12 refineries.

13 Q. You're assuming that, aren't you?

14 A. I have read a couple of reports talking
15 about exposure levels in the industry.

16 Q. Okay. Do you have an opinion as to
17 whether or not the workers at the Exxon refinery
18 were exposed to less benzene than the Mobil
19 workers at the Beaumont facility --

20 A. Are we talking -

21 Q. -- as reflected by the Hanis studies of
22 1982 and 1985?

23 A. Are you talking about time-weighted
24 average?

25 Q. Time-weighted average, part per million
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1 years, however you would like to express it. Is
2 there a difference between those two populations'
3 benzene exposure?

4 A. And how big a difference is a
5 difference? I mean -

6 Q. I want to know if you recognize that
7 there is any difference.

8 A. I'm sure there is always a small
9 difference, you know, even within the refinery
10 itself. It's a matter of how big a difference
11 you're talking about.

12 Q. Did you know that Exxon in the 1940's
13 employed industrial hygienists at their
14 refineries?

15 A. I don't know -- I don't know the date.

16 Q. Did you know that the Beaumont Mobil
17 refinery did not have an industrial hygienist at
18 its refinery until the 1970's; did you know that?

19 A. I didn't know that.

20 Q. Which of those two refineries, the
21 Beaumont Mobil refinery or the Exxon Baytown
22 refinery, do you think had the lower benzene
23 exposures?

24 A. I don't know.

25 Q. Isn't that important for you to know
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1 when evaluating two studies like you've done in
2 your meta analysis?

3 A. No. I'm talking about an average of the
4 entire industry.

5 Q. Doesn't your average, through meta
6 analysis, basically just dilute those studies that
7 indicate a higher incidence of disease such as
8 lymphatic tissue cancer?

9 A. No.

10 Q. Looking at the Morgan and Wong Beaumont
11 refinery study results for lymphatic tissue
12 cancer, there indicates an SMR of 1.57. Does that
13 mean that there is a 57 percent increase in the
14 expected numbers of lymphatic tissue cancer?

15 A. No.

16 Q. Over expected?

17 A. No. The interpretation of that study
18 was an increase, that the increase could have been
19 due to chance. It was not statistically
20 significant.

21 Q. You expected to see 7.62 deaths, but
22 actually there was observed 12 deaths from that
23 refinery?

24 A. And the difference could have been due
25 to chance.

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1 Q. Could have been due to chance?

2 A. Right.

3 Q. It's also possible that it could not

4 have been due to chance?

5 A. There could be other confounding

6 exposures.

7 Q. Isn't it also possible that because of

8 the higher benzene levels at the Beaumont refinery

9 as compared to the Exxon refineries, that is an

10 explanation of why there is an increase incidence

11 of lymphatic tissue deaths at the Beaumont

12 refinery?

13 A. I didn't know there was -- that exposure

14 level at Beaumont was higher.

15 Q. Do you have any opinion as to

16 Lilly's exposure to benzene, those levels,

17 during the time when Mr. Lilly was a laborer at

18 the Cities Service complex?

19 A. Again, I would put that into the broad

20 category of maintenance workers. That's how we

21 classify workers in the industry.

22 Q. At many refineries, would

you agree with

23 me that laborer work is performed by contract

24 employees?

25 A. I don't know.

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1 Q. Would you agree with me that not one
2 study in Table XIV involving lymphatic tissue
3 cancer includes contract employees in that study?

4 A. These studies consist of employees of
5 companies. Some of them might have been
6 contractors. I don't know.

7 Q. Well, it's true that none of these
8 companies would keep morbidity and mortality
9 information on contract employees, now, would
10 they?

11 A. No.

12 Q. So, more than likely, none of these
13 studies include contract workers; is that correct?

14 A. Not if they have not worked as an
15 employee of the company.

16 Q. And you have no background relative to
17 what jobs at a refinery are typically given to
18 contract workers; that's a correct statement,
19 isn't it?

20 A. Can you say that again?

21 Q. You don't have the industrial experience
22 to rely upon as it concerns the utilization of
23 contract workers at a refinery or petrochemical
24 plant? You don't know how they're utilized, do
25 you?

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1 MS. ARRAS: I'm going to object as
2 being vague in the sense -- you're trying
3 to have him draw a conclusion as to
4 every petrochemical plant company in the
5 United States?

6 MR. HYDE: The industry in
7 general.

8 MS. ARRAS: I think that's pretty
9 broad.

10 MR. HYDE: Well, let Kim answer
11 it, then.

12 A. I can't answer your question. My
13 understanding is, their job functions would be
14 similar to those of maintenance workers,
15 maintenance employees.

16 BY MR. HYDE:

17 Q. And you have gained your knowledge
18 relative to contractors and the type of work they
19 may or may not do from the epidemiological studies
20 that have been conducted by the various oil
21 companies, or American Petroleum Institute or
22 Chemical Manufacturers Association; is that right?

23 A. Yes.

24 Q. If you assume with me that in most
25 refineries contract workers do the common laborer
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1 work, then these studies would not reflect,
2 generally, common laborer disease history?

3 A. I don't think it's a fair statement to
4 make.

5 Q. Why not?

6 A. Because in the studies that I included
7 in our paper, we do have maintenance employees.
8 And in that group of employees, we do have people
9 with the job title laborer. So, we do have those
10 people. But they are on the payroll of the
11 company, per se.

12 Q. You understand that Mr. Lilly is a black
13 man?

14 A. Yes.

15 Q. Do you know what kind of work a black
16 man was given at the Cities Service refinery in
17 the 1940's, 1950's?

18 MS. ARRAS: I'm going to object to
19 this. It calls for assumptions on his
20 part. It's very vague.

21 MR. SPEARS: Well, the question
22 is, what does he know. And I'm not sure
23 he wouldn't know that. But you can
24 answer.

25

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1 BY MR. HYDE:

2 Q. Let's strike that and go to a new
3 question.

4 What do you know about the type of work

5 Mr. Lilly performed in the 1940's and 1950's,
6 given the fact that he was a black man working at
7 that refinery?

8 A. Well, we discussed earlier, he washed
9 bottles in the lab.

10 Q. Did you also read where he would also
11 shovel out the bottoms from tanks and work in the
12 sewer systems? Did you read that in his
13 deposition?

14 .MR. McCALL: Counsel, once again,
15 are you referring to the forties and
16 fifties in terms of his work -

17 MR. HYDE: Yes.

18 MR. McCALL: -- as opposed to his
19 later work?

20 MR. HYDE: Yes.

21 A. Yeah, I read that.

22 BY MR. HYDE:

23 Q. Would you say that Mr. Lilly probably
24 was exposed to significant amounts of benzene as a
25 laborer in the Cities Service complex during the
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1 1940's and 1950's?

2 A. I have no information on that.

3 Q. Do you have any opinion as to the extent
4 of exposure to benzene Mr. Lilly had when he would
5 clean someone's shirt with benzene?

6 A. I didn't know that.

7 Q. As an epidemiologist knowledgeable of
8 benzene epidemiology, would you recommend that a
9 person ever wash a shirt in pure benzene?

10 MR. McCALL: As an

11 epidemiologist?

12 MR. HYDE: Yeah, as an

13 epidemiologist, knowledgeable in the
14 literature associated with benzene.

15 MR. McCALL: I'll object to the
16 form of the question as the question
17 itself calls for something beyond this
18 man's field of expertise in this case.
19 It's objectionable.

20 BY MR. HYDE:

21 Q. Will you answer that question?

22 A. I don't recommend -- make recommendations
23 on work practice, per se.

24 Q. As a scientist knowledgeable of the
25 epidemiological studies concerning benzene, would
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1 you ever suggest to any of your clients that they
2 permit their employees to wash clothing in benzene?

3 MR. McCALL: I'm going to object

4 to the form of the question, assuming

5 facts that are not in evidence.

6 Go ahead, Dr. Wong, if you can

7 answer it.

8 A. I think you're getting into an area of

9 what I would say is decision making or policy

10 making. I am not an expert on policy making,

11 other than within my household. I certainly make

12 a policy of forbidding my kids to smoke even one

13 single cigarette.

14 But if you give me a patient who has

15 lung cancer and his exposure to cigarettes was

16 only one -- you know, he smoke only one cigarette

17 in his lifetime, as a scientist, I cannot put any

18 relationship between that single cigarette smoking

19 and his lung cancer. But -

20 BY MR. HYDE:

21 Q. You -

22 A. It's a little story just to tell you

23 that I'm not a policy maker.

24 Q. But the point is, for someone you care

25 about, you wouldn't want them smoking even one

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1 cigarette; is that correct?

2 A. For one thing, I don't like cigarette
3 smoke in the house.

4 Q. But I'm correct, you wouldn't want
5 anybody that you cared about to even smoke one
6 cigarette?

7 A. That's right.

8 Q. Anybody who you cared about, you would
9 not want them to wash a piece of clothing in
10 benzene; is that a fair statement? .

11 MR. McCALL: Once again -

12 A. I did not say that.

13 MR. McCALL: -- let me object to
14 the form of the question, Counsel. It's
15 facts not in evidence. If you are
16 talking about -

17 A. I did not say that.

18 BY MR. HYDE:

19 Q. Well, are you saying that it wouldn't
20 bother you if someone who you cared about washed
21 their clothes, shirt, in benzene?

22 A. I have no information on the health
23 effects of washing clothes in benzene.

24 Q. Doesn't just general concept of that
25 offend you as an epidemiologist knowledgeable of
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1 the epidemiological studies associated with
2 benzene?

3 A. Offend me -- I have no idea what -- what
4 the procedure would be -- what the exposure level
5 would be.

6 Q. Do you think it's a prudent procedure
7 for someone to be allowed to wash their shirt in
8 benzene?

9 MR. McCALL: We're talking about
10 in general now?

11 MS. ARRAS: We're talking about
12 doing it once?

13 A. Once, twice, three times?

14 BY MR. HYDE:

15 Q. One time. Is it prudent for someone to
16 wash a shirt in benzene one time?

17 A. I would not do it myself.

18 Q. Why wouldn't you do it yourself?

19 A. I would probably throw away the shirt.

20 Q. But you wouldn't use the benzene because
21 it's a health hazard; isn't that right?

22 A. No.

23 Q. You wouldn't do it because benzene is a
24 carcinogen; isn't that correct?

25 A. I have no access to benzene to-start
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1 with.

2 Q. I'm giving you a hypothetical. If you
3 had benzene, would you wash your shirt in it?

4 A. I guess it depends on what other
5 alternatives there are and what else I'm going to
6 do with the shirt.

7 Q. There's no alternatives. Either throw
8 the shirt away or wash it in benzene. Would you
9 wash it in benzene?

10 MR. McCALL: And, Counsel, we're
11 talking about today -

12 MR. HYDE: Today. Right now.

13 MR. McCALL: -- what he knows
14 today.

15 MS. ARRAS: In 1991.

16 BY MR. HYDE:

17 Q. What you know today.

18 A. I would not.

19 Q. And why?

20 A. Because there is no need for me to, I
21 guess. I don't know how else I can answer that
22 question.

23 Q. It's also because you don't need to
24 expose yourself to benzene; isn't that -

25 A. Exactly.

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1 Q. -- correct? _

2 And you don't need to expose yourself or
3 you don't want to expose yourself because benzene
4 is a health hazard?

5 A. At high enough level, it can cause acute
6 myelogenous leukemia. Let's be very specific.
7 When you say "health hazard," you are making some
8 blanket statement, which I would not agree to.

9 Q. On your chart that you put together
10 relative to risk factors associated with
11 non-Hodgkin's lymphoma, I see that you did not
12 include any of Rinsky's studies. That's correct,
13 isn't it, as it pertains to benzene and
14 non-Hodgkin's lymphoma?

15 A. Did Rinsky talk on non-Hodgkin's
16 lymphoma?

17 Q. Did he?

18 A. No.

19 Q. He's never talked about non-Hodgkin's
20 lymphoma?

21 A. No.

22 MR. HYDE: Off the record.

23 (DISCUSSION OFF THE RECORD)

24 MR. HYDE: For the record, we are
25 going to stop right now. It's
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1 approximately 6:45 We have been going
2 for a long time. The witness is tired,
3 and the attorneys are tired.
4 We are going to have an agreement
5 that we will continue Dr. Wong's
6 deposition by telephone. But this
7 transcript is not to be transcribed and
8 no parties except Dr. Wong are to have
9 access to the exhibits until right
10 before the deposition -- the. telephone
11 deposition starts back, which will -
12 more than likely, the attorneys will get
13 together in Lake Charles to complete the
14 deposition.
15 It's further agreed that since
16 this is a continuation of the
17 deposition, that Dr. Wong will remain
18 under oath as it pertains to this
19 deposition and will not need to be
20 re-sworn at the time when the telephone
21 deposition is -- is that agreeable?
22 MR. McCALL: Sure.
23 MR. SPEARS: Right.
24 MR. McCALL: Are you going to
25 arrange, as per Mr. Baggett's
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1 insistance, that a court reporter be
2 with Dr. Wong on this end next time
3 around?

4 MR. HYDE: No. We'll just have
5 the court reporter with us. Is that
6 agreeable to y'all?

7 MR. McCALL: Just the problems
8 that we've had with that in the past.
9 That's. why we have gone to court
10 reporters with the deponent

11 MR. HYDE: Well, I mean -

12 MR. McCALL: I'll work with you
13 whichever way, but that's become a
14 problem in the past.

15 MR. HYDE: I will agree to have
16 the court reporter in Lake Charles with
17 the attorneys, if that's agreeable to
18 y'all.

19 MR. SPEARS: Sure.

20 Do you have a fax machine in your
21 office, Dr. Wong, just in case y'all
22 want to send something back to look at?

23 MS. ARRAS: As far as the exhibits
24 are concerned, as we did with
2.5 Dr. Bingham, they'll be sent by Federal
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1 Express -

2 -MR. McCALL: To the wrong
3 address.

4 MS. ARRAS: -- they'll be sent by
5 Federal Express the day before the
6 deposition is to recommence.

7 MR. HYDE: Well, he can just bring
8 them with him during the deposition.
9 But certainly we should not have them
10 until the day before.

11 MS. ARRAS: Right. The court
12 reporter is charged with the duty of not
13 making the exhibits available to any
14 party until 24 -- approximately 24 hours
15 before the deposition.

16 However, if he potentially brings
17 them with him to the deposition, I don't
18 know that that doesn't pose a bit of a
19 problem.

20 MR. HYDE: Dr. Wong has his
21 exhibits with him.

22 MS. ARRAS: All right. Then
23 you'll bring them to the deposition when
24 it recommences.

25 MR. SPEARS: We're going to have
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1 to be with him and the court reporter
2 because they're going to have their set
3 of exhibits.

4 MS. ARRAS: I know.

5 MR. SPEARS: So, wherever that
6 is. Dr. Wong will be here, but we'll be
7 together, somewhere.

8 MS. ARRAS: Unfortunately.

9 MR. HYDE: Does that reflect all
10 our agreements?

11 MS. ARRAS: I believe so.

12 MR. HYDE: And we'll try to
13 complete this deposition within the next
14 two weeks, then?

15 MR. SPEARS: At least. Sometime
16 when we don't have any other
17 depositions.

18 MS. ARRAS: The problem is the
19 holidays. I don't know that anybody is
20 going to be available to go to Lake
21 Charles.

22 THE WITNESS: Do you want to pick
23 a date now?

24 MR. HYDE: I don't have my
25 calendar with me.

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1 Let's go off the record now -

2 well, let's say this, are there any
3 other agreements associated with the
4 continuation of Dr. Wong's deposition
5 that we need to get on the record?

6 MS. ARRAS: Well -

7 MR. McCALL: That's fine.

8 MS. ARRAS: Let's go off record.

9 (DISCUSSION OFF THE RECORD)

10 (THE DEPOSITION WAS ADJOURNED AT 7:00 P.M.)

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1 THE STATE OF TEXAS XX

2 COUNTY OF JEFFERSON XX

3 I, JAMES G. ELLIS, a Certified Shorthand
4 Reporter, hereby certify that the foregoing
5 testimony was given before me after the witness
6 had first been duly sworn.

7 I further certify that this deposition was
8 prepared under my direction and is a complete and
9 correct transcript of the proceedings and that it
10 is being given to MR. J. KEITH HYDE. -

11 I further certify that I am neither attorney
12 for, related to, nor employed by any of the parties
13 to the lawsuit in which this deposition was taken.
14 Further, I am neither related to nor employed by
15 any of the attorneys of record in this cause; nor
16 do I have a financial interest in the matter.
17 GIVEN UNDER MY HAND AND SEAL OF OFFICE in
18 .Beaumont, Texas, on this the day of
19 1991.

20

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