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1
2 JAMES COWEY AND RUTH COWEY
3
4 PLAINTIFFS,
5 VS.
6 RADIATOR SPECIALTY
7 COMPANY, ET AL
8 DEFENDANTS.

CAUSE NO. A-167,693
IN THE DISTRICT COURT
JEFFERSON COUNTY, TEXAS

58TH JUDICIAL DISTRICT

9
10 TELEPHONIC ORAL DEPOSITION OF
11 JOHN W. SPENCER, CIH, CSP
12 DECEMBER 2, 2003
13
14

15 TELEPHONIC ORAL DEPOSITION OF JOHN W. SPENCER, CIH,
16 CSP, produced as a witness at the instance of the
17 PLAINTIFFS, and duly sworn, was taken in the
18 above-styled and numbered cause on the 2nd of December,
19 2003, from 4:06 p.m. to 8:26 p.m., before Kathy Miller,
20 CSR in and for the State of Texas, reported by machine
21 shorthand, at the law offices of Heard, Robins, Cloud,
22 Lubel & Greenwood, LLP, 910 Travis, Suite 2020, Houston,
23 Texas pursuant to the Texas Rules of Civil Procedure and
24 the provisions stated on the record or attached hereto. 25

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2

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1 MR. EPPS: Reading and signing, John will
2 read and sign. If you're going to expedite the
3 deposition, which I ask that you do, please e-mail me a
4 copy.

5 JOHN W. SPENCER, CIH, CSP,
6 having been first duly sworn, testified as follows:

7 EXAMINATION

8 BY MR. LUBEL:

9 Q. Please state your full name.

10 A. John Spencer.

11 Q. And where do you live?

12 A. Baltimore, Maryland.

13 Q. And where are you right now while this
14 deposition is taking place?

15 A. New York City.

16 Q. And what are you doing in New York City,
17 Mr. Spencer?

18 A. I had some meetings with different clients up
19 here.

20 Q. Are your meetings at the offices of
21 Fulbright & Jaworski?

22 A. No. 23 Q. Have you got your file materials regarding
24 Liquid Wrench and Mr. Cowey's case in front of you?

25 A. I don't have my entire file, but I have, I

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1 believe, the pertinent materials.

2 Q. And have you had a chance to review those
3 materials?

4 A. Yes. 5 Q. Let's go through, and take an inventory, if
6 you will, of the materials that -- that you have before
7 you. Can you go ahead and list them all for us?

8 A. Okay. I have a report that I prepared dated
9 23 October 2003. I have a report of findings dated 27
10 September 2002, done by me. I have a report that I just
11 recently received from Behzad Samimi, which I have only
12 reviewed super -- superficially at this point. I have a
13 report by Vernon Rose dated November 13, 2003. I have a
14 paper, "Industrial Benzene Exposure from Petroleum
15 Naphtha," by Elkins, et al. I have some material safety
16 data sheets of Radiator Specialty Company, and I think
17 that's basically the sum of what I have with me.

18 MR. EPPS: Let me ask a question, before
19 we go much further. Anybody talked to Jim Riley to see
20 whether he was going to attend?

21 MR. RILEY: I'm right here, Carl.

22 MR. EPPS: I'm sorry, Jim, I didn't hear
23 that.

24 MR. RILEY: That's all right. And I'll
25 get you a copy.

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1 MR. LUBEL: Is that all you needed, Carl?

2 MR. EPPS: Yes. Thank you.

3 Q. (BY MR. LUBEL) Mr. Spencer, have you
4 identified all of the documents that you have before
5 you, at least for this deposition?

6 A. Yes.

7 Q. All right. Let's do

8 A. What I have not listed, what I don't have with
9 me, but I have reviewed, is also the deposition
10 testimony of Vernon Rose.

11 Q. Anything else that you can remember?

12 A. I believe there was also deposition testimony
13 of Richard Irons.

14 Q. Anything else?

15 A. That's all I can think of right now.

16 Q. All right. Let's -- let's start with
17 Dr. Irons' testimony. Have you reviewed that
18 deposition?

19 A. I did, yes.

20 Q. Was it taken in the James Cowey case or
21 another case?

22 A. Well, maybe I'm getting confused. I don't
23 have it here with me. I thought it was in this case.

24 Q. How does the Dr. Irons' testimony impact your
25 opinions in this case?

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1 A. It does not.

2 Q. So it's not applicable as to what your
3 opinions are, I take it?

4 A. That's correct.

5 Q. Okay. Then, I take it that you have reviewed
6 the Vernon Rose deposition testimony that he's given in
7 Mr. Cowey's case; is that true?

8 A. Yes. 9 Q. Now, you don't have that in front of you, but
10 you've read it, and are you familiar enough with it to
11 visit about it in this -- in this deposition of
12 yourself?

13 A. Yes.

14 Q. And then you mentioned some MSDS sheets from
15 Radiator Specialty Company?

16 A. Yes.

17 Q. What are the dates of those MSDS sheets that
18 you have in front of you?

19 A. Let me see if I can find them. 1978.

20 THE WITNESS: Excuse me. Get a drink of
21 water.

22 A. The other one I have is dated October 2001.

23 Q. (BY MR. LUBEL) Any others?

24 A. I'm sorry?

25 Q. Are there any others?

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1 A. No. That's it.

2 Q. And then you referenced an Elkins article?

3 A. Yes.

4 Q. Can you tell us the title and date of that
5 article?

6 A. I believe I read the title, but it's

7 "Industrial Benzene Exposure from Petroleum Naphtha,"

8 and it has Roman Numeral -- Roman Numeral 2, "Pertinent

9 Physical Properties of Hydrocarbon Mixtures," and the

10 date of that article is March 1963.

11 Q. And then what is the date of the Dr. Samimi

12 report that you have?

13 A. Let's see if I can find a date on here. I

14 know it was just the one that was recently produced. I

15 don't see that he has a date on here. I'm sorry, I

16 don't see any date on his report.

17 Q. Do you see the fax transmission at the top?

18 A. Yes.

19 Q. What's the date that you have on there?

20 A. 11-24-03.

21 Q. When did you receive that report?

22 A. I -

23 Q. Did we lose you?

24 A. No. I'm sorry. I'm trying to figure that

25 out. I believe it was on that date.

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1 Q. And who sent you that?

2 A. I believe this came from the office of
3 Fulbright & Jaworski.

4 Q. Okay. And then you've referenced a September
5 27, 2002 report of findings?

6 A. Yes.

7 Q. Does it say "Draft" on it?

8 A. Yes, it does.

9 Q. And then you've referenced your report in this
10 case dated October 23rd of 2003?

11 A. Yes.

12 Q. Okay. Let me -- let me go through, and I'm
13 going to mark some exhibits.

14 MR. LUBEL: Do you have some stickers,

15 Kathy?

16 Q. (BY MR. LUBEL) I have correspondence between
17 yourself and the law firms. Are you familiar with that
18 correspondence generally?

19 A. Well, certainly, I -- I know that I have
20 received some. I could not tell you the content of it.
21 (Exhibit 1 marked.)

22 A. I don't think there was anything there which I
23 was using to develop opinions from.

24 Q. (BY MR. LUBEL) Well, let me just talk to you
25 about some of them. And I've marked the entire

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1 correspondence that Fulbright & Jaworski has provided me
2 as Exhibit Number 1. And I want to start out talking to
3 you about an invoice from Environmental Profiles,
4 Incorporated dated September 30th, 2003, invoice number
5 5716. Do you work for Environmental Profiles,
6 Incorporated?

7 A. Yes, I do.

8 Q. What is your title? What is your job title?

9 A. I am an industrial hygienist and president of
10 the company.

11 Q. Do you have an ownership interest in it?

12 A. Yes.

13 Q. Who are the owners of that entity?

14 A. That would be me.

15 Q. Okay. So you're the sole shareholder of it?

16 A. Correct.

17 Q. And when did you incorporate that company?

18 A. 1993.

19 Q. And have you been the sole shareholder of that
20 company since it was incorporated in 1993?

21 A. I originally had a partner.

22 Q. Who was that?

23 A. I'm sorry, did you hear that?

24 Q. Yes, sir. I said who was that?

25 A. Oh, Paul Esposito.

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1 Q. And what happened to Mr. Esposito?

2 A. He started his own firm.

3 Q. What's the name of his company? What is the
4 name of his company?

5 A. It's Star something.

6 Q. And where is it located?

7 A. He's in Maryland.

8 Q. And what were the reasons for you-all's
9 break-up, generally?

10 A. Hmm, just doing different things, different
11 type of activities, and different approaches.

12 Q. Is he an industrial hygienist like yourself?

13 A. Yes.

14 Q. And did he take any of your existing clients
15 with him when he left the company?

16 A. Yes.

17 Q. Now, when were you first hired by the Liquid
18 Wrench defendants in any capacity?

19 A. It's probably been at least a couple of years
20 ago.

21 Q. And who first contacted you?

22 A. I believe it was Mr. Epps.

23 Q. And at that time, or shortly thereafter, did
24 you and Mr. Epps reach an agreement on how you were
25 going to proceed?

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1 A. Yes, I believe so.

2 Q. And what was the nature of that agreement?

3 A. Well, just generally, that I would review the
4 materials, and determine what sort of analysis I could
5 perform.

6 Q. Now, were you hired by Mr. Epps initially with
7 respect to a particular lawsuit, or just hired in
8 general, on the Liquid Wrench issue?

9 A. It was for a lawsuit.

10 Q. What was the name of that lawsuit?

11 A. I really -- I don't -- do not remember that.

12 Q. And what type of work did you do for Mr. Epps
13 in the first case?

14 A. Evaluate exposure to an individual using
15 Liquid Wrench.

16 Q. And how did you perform that evaluation in
17 that first case?

18 A. I think I had -- I don't specifically recall.

19 It may have been a function of modeling-related work,
20 and some surrogate exposure data.

21 Q. And where would you have retrieved the
22 surrogate exposure data?

23 A. I don't specifically recall, but the typical
24 sources would have been from various NIOSH health hazard
25 evaluations, or published literature.

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1 Q. And what would you have been looking for?

2 A. Individuals using solvent products containing
3 low levels of benzene.

4 Q. And would you have sent that information to
5 Mr. Epps, once you retrieved it?

6 A. Possibly. I honestly don't remember how far
7 the case went, and whether I sent him any materials.

8 Q. Well, do you recall whether you located any
9 surrogate information?

10 A. Yes, I -- I believe there was -- there was
11 some data. But I -- I honestly -- I don't remember the
12 details of that data right now.

13 Q. Do you remember if it was published data?

14 A. I just don't -- I don't recall the specific
15 data.

16 Q. And I believe you said that you would have
17 performed some modeling estimates, or something of that
18 nature?

19 A. Yes. May have done some crude modeling,
20 some -- yes.

21 Q. And how would you have done that?

22 A. Using a standard industrial hygiene modeling
23 approach, determining room size, generation rate of a
24 particular solvent, and determining the amount, the mass
25 of material, being volatilized into the air.

1 Q. And do you recall which model you used?

2 A. I -- I don't. It's -- not -- not

3 specifically. I --

4 Q. Well, sitting here today, do you have a pretty
5 good idea of what models you would have picked from?

6 A. It may have been -- there's one or two models,
7 a simple box model, and there's another that involves
8 more of a dynamic generation rate and ventilation rate.

9 Q. Now, is the box model referred to as the box
10 model, or does it have another name?

11 A. Generally, would be called a box model.

12 Q. And how about this dynamic model, what would
13 it be called, in your jargon?

14 A. You know, I don't know the specific name. I
15 don't know if it even has one. It's dynamic dilution
16 modeling.

17 Q. And were either one of these models, models
18 that you had invented, or were they in the marketplace
19 in use by industrial hygienists such as yourself?

20 A. No, these would be standard models used by
21 industrial hygienists.

22 Q. And your recollection is, is you would have
23 used one of these models, either the box model or the
24 dynamic dilution model, in order to provide some
25 estimates of exposures given various conditions?

1 A. Yes. Right -- and I may have used both, I
2 just don't specifically recall. The purpose of -- of
3 which is just to establish a magnitude of range of
4 exposures, and then compare that to actual data, see if
5 you're finding a correlation between the two.

6 Q. Now, what are the advantages in using the box
7 model as opposed to the dynamic dilution model?

8 A. Well, I don't know if it's an advantage. The
9 box model overstates -- as a lot of modeling does, will
10 overstate the exposure. You're creating a very worst
11 case scenario, using worst case assumptions.

12 Q. Well, what is the

13 A. A beginning point.

14 Q. What's the difference in the outcome between
15 the box model and the dynamic model? If a client were
16 to call you and say, which model are you going to use?
17 And, you say, well, I'm going to use the box model, why
18 do you tell -- and they say, well, why would you use the
19 box model over the dynamic dilution model? What are you
20 going to tell them?

21 A. Well, the -- if you're just trying to get a
22 very fast and crude estimate of what the maximum level
23 of exposure could be, then that's what the box model is
24 for.

25 Q. So, what is it about the dynamic dilution

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1 model that provides a more realistic exposure estimate?

2 A. You're installing additional variables and
3 parameters into your evaluation, such as the generation
4 rate of a solvent, you know, how many grams come off in
5 a minute. And, also, the ventilation rate of a space.

6 Q. Now, in this first case, when you think that
7 you used a modeling technique, and potentially a
8 surrogate, did you compare that to actual monitoring in
9 the first case?

10 A. Again, I'm -- I'm not absolutely sure. I -- I
11 believe that's the case, but I -- I can't -- I can't
12 testify with accuracy that's exactly what I did. I'd
13 have to go -- try to go back and find that information
14 if I still have it.

15 Q. Well, where do industrial hygienists, such as
16 yourself, locate these models to use on exposure
17 estimates?

18 A. There's various books that are available.

19 There's also courses that are given by the Association
20 on Industrial Hygiene Air Modeling, courses which I have
21 taken over the years.

22 Q. Well, I take it, then, if they're in textbooks
23 that industrial hygienists use, and it's in the courses
24 that industrial hygienists take from the association,
25 then it is appropriate for people such as yourself to

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1 use these models in trying to determine estimates of
2 exposures; is that true?

3 A. Sure. I mean, modeling is a secondary means
4 of evaluating exposure, and it can be used to help
5 validate actual air monitoring data, and that's
6 generally how it's used.

7 Q. And have there been -

8 A. In combination with actual air monitoring
9 data.

10 Q. Have there been cases that you've worked on
11 where you've given opinions on exposure estimates based
12 upon modeling?

13 A. I do not believe that I have done that, where
14 it's solely on modeling.

15 Q. So each and every time that you have been
16 retained as an expert to look at exposure estimates,
17 you've done both the modeling and performed actual
18 measurements, or sampling?

19 A. Well, whether it's for litigation, or for my
20 general practice, the approach is to -- if I don't have
21 actual data from that process, I look for relevant data
22 from -- where other industrial hygienists have done
23 relevant studies of similar or the same product.

24 Q. And then what if that information doesn't
25 exist?

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1 A. Well, then I go out and do air sampling.

2 Q. But do you also perform the modeling?

3 A. I may. Again, just to corroborate the air

4 sampling data.

5 Q. But has there ever been an occasion where you

6 were working on a lawsuit where you performed modeling

7 in order to estimate the exposures? In other words, you

8 just did the modeling, you didn't do actual measurements

9 or sampling?

10 A. I do not believe so, no.

11 Q. Now, you said something about you used the

12 modeling to corroborate the -- the sampling. Is that --

13 did I hear you correctly?

14 A. Yes.

15 Q. Why is that?

16 A. It's an additional benchmark to give you -- to

17 evaluate the reliability of data.

18 Q. Okay. Now, did you perform any modeling in

19 the -- in the Liquid Wrench cases that you've worked on

20 before you started working on the Cowey case?

21 A. I'm sorry. So -- did I perform modeling on --

22 in other cases?

23 Q. Right. In other Liquid Wrench cases.

24 A. That's what -- I'm just not absolutely

25 certain. I'd have to try to go back and find if I could)

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1 have -- if I still have those files what I did
2 previously. I just don't specifically recall if I did
3 any modeling or not.

4 Q. Have you done any modeling in Mr. Cowey's
5 case?

6 A. Yes.

7 Q. And which model did you use?

8 A. It is called a Near Field-Far Field model.

9 Q. And did you use that model to corroborate the
10 actual sampling?

11 A. Yes. 12 Q. And how did you choose the Near Field-Far
13 Field model?

14 A. It is probably the -- the most accurate and
15 most widely accepted model used by industrial hygienists
16 who are familiar and involved in doing modeling work.

17 Q. Well, what happened to the box model and the
18 dynamic model? Are they obsolete now?

19 A. You know, I guess that's probably a good term.
20 I mean, there -- it's a more antiquated process. This
21 Near Field-Far Field model is certainly a more
22 sophisticated approach, and evaluation process. It's
23 not as crude as the previous models we discussed.

24 Q. When did the Near Field-Far Field model come
25 into existence?

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1 A. Oh, gosh, I don't know. I mean, it's been
2 around, obviously, awhile. I -- I don't know the
3 specific date when it -- you know, I couldn't even tell
4 you a decade when it became available. Certainly with
5 the advent of computers, it became easier to use.

6 Q. Why didn't you use that particular model in
7 the first case where you said you used either the box
8 model or the dynamic dilution model?

9 A. I think, at that time, I was first looking at
10 this, I was looking at a very gross level of exposure,
11 and -- and frankly, I probably just wasn't as
12 sophisticated in doing the analysis, that it was -- it
13 was a much grosser look.

14 Q. Well, the September 27, 2002 report of
15 findings that you mentioned that you had before you?

16 A. Yes. 17 Q. When was that actual work done that led to
18 that report?

19 A. The actual sampling was done in, I believe, in
20 August.

21 Q. Of that year?

22 A. Yes.

23 Q. Now, are you using the data from that sampling
24 in the Cowey case?

25 A. Yes. I am certainly using it as a reference

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1 point, to discuss -- or perhaps not specifically what
2 Mr. Cowey was exposed to, but to represent a -- again, a
3 worst case scenario, that would represent something that
4 was likely a higher level exposure than Mr. Cowey would
5 have experienced.

6 Q. But my question is: Did you -- did you perform
7 any sampling of any Liquid Wrench product specifically
8 for Mr. Cowey's case?

9 A. No.

10 Q. You were relying upon the data that you had
11 obtained in roughly August of 2002?

12 A. Yes. In -- in addition to the modeling that
13 we did.

14 Q. Now, does your report dated October 23rd,
15 2003, in the Cowey case, reference the data that you
16 obtained in August of 2002?

17 A. Yes.

18 Q. Where is that in the report?

19 A. On the first page, on the second paragraph,
20 initial estimates were derived from air monitoring data
21 generated during the EPI Liquid Wrench evaluation.

22 Q. But where in this report does it give any
23 indication that the air monitoring data was generated in
24 roughly August of 2002?

25 A. Oh, it doesn't. I mean, we've only done one

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1 evaluation. So -- probably we could have added the
2 date, and more specifically identified that report
3 there, but that's what that is.

4 Q. Well, how would the person reading the October
5 23rd, 2003 report know that you had performed sampling
6 data almost 15 months before this report was issued?

7 A. I guess they could ask.

8 Q. But you wouldn't know from reading the report
9 itself?

10 A. No. You wouldn't know in terms of the date,
11 no.

12 Q. Now, did you send the sampling results to a
13 laboratory to be analyzed?

14 A. When we did our study in 2002?

15 Q. Yes, sir.

16 A. Yes.

17 Q. And where is the correspondence to the
18 laboratory that analyzed the samples that you had taken?

19 A. Oh, I have those materials in my office.

20 Q. Have you provided that information at any time
21 to Mr. Epps, or any other lawyers representing Liquid
22 Wrench?

23 A. I do not believe that I have at this time. I
24 am not absolutely sure about that, but I don't know that
25 I have sent them that information yet.

Page 23

1 Q. How many pages are we talking about of
2 correspondence to the laboratory?

3 A. I don't know offhand. 20 to 40 pages.

4 Q. And did you receive results from the
5 laboratory regarding the samples that they had analyzed?

6 A. Yes. 7 Q. And how did they correspond with you,
8 regarding those results?

9 A. I'm sorry, I don't know that I follow your
10 question.

11 Q. How did you learn of what the results from the
12 laboratory were on the samples?

13 A. They -- they sent a -- a laboratory report
14 indicating a sample number and results of their
15 findings.

16 Q. And do you -- did you maintain that
17 correspondence of the results?

18 A. Yes. 19 Q. And have you provided that to any of the
20 lawyers for United States Steel Corporation, or the
21 Liquid Wrench defendants?

22 A. I do not believe that I have. That was the
23 information I was talking about just a moment ago.

24 Q. Well, how were the samples transported to the
25 laboratory?

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1 A. How were they transported?

2 Q. Right.

3 A. Overnight mail.

4 Q. And what were the samples contained within?

5 A. I don't specifically recall. It may have been

6 some sort of cooler, or -- or other packaging. I just

7 don't remember. It's whatever was specified in the

8 OSHA-NIOSH ana -- analytical methodologies.

9 Q. And what do the OSHA-NIOSH methodologies

10 require of you in transporting that material to be

11 analyzed by a laboratory?

12 A. Yeah. Again, I'm not -- I'm not sure I recall

13 the -- the method, what it describes. It -- it may be

14 if we sent it within a specific period of time, that we

15 didn't have to do anything special. I can't remember.

16 We may have -- I know in the past I have shipped these

17 things out in a cooler to keep things cool. I'd have to

18 go look at the method to answer that question

19 accurately.

20 Q. Now, is there any particular reason that you

21 did not provide the sampling data, the actual data

22 itself, to the lawyers for United States Steel

23 Corporation or Liquid Wrench?

24 A. Well, I think only because I'm not sure that

25 we had ever fully completed this report. I think it's

Page 25

1 still marked as a draft, and we just didn't send all the
2 materials out because it still had draft marked on it.
3 We weren't completed.

4 Q. Well, did you ever complete the report?

5 A. We haven't gone any farther than the version
6 that you have in front of you.

7 Q. Well, did -- what work had you not completed?

8 A. I think that we were basically done, as far as
9 I knew. We just didn't -- the client just didn't tell
10 us to take draft off of it, and we never went any
11 further than that.

12 Q. So, as you sit here today, you believe that
13 your work has been completed?

14 A. Yes. I mean, there may be some minor
15 modifications for the report. I don't know what those
16 would be. But I think generally, it's done, yeah.

17 Q. Well, when were you of the opinion that the
18 work was done?

19 A. At least of the date of this report.

20 Q. Which is what?

21 A. 27 September 2002.

22 Q. Well, why hadn't you provided the lawyers with
23 the actual sampling data and the results from the
24 laboratory since the report was completed in September
25 of 2002?

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1 A. Again, I -- I don't know. We just -- it -- we
2 sent the draft, and didn't have any additional response
3 from the client -- and I may be wrong about that. We
4 may have sent that material. I am not absolutely
5 certain.

6 MR. LUBEL: Carl, do you -

7 A. I probably need to check that when I get to my
8 office.

9 MR. LUBEL: Carl, do you have it?

10 MR. EPPS: I don't know this is a
11 question and answer for the lawyers, but I'll answer
12 that one. Not to my knowledge.

13 Q. (BY MR. LUBEL) Well, Mr. Spencer, are you
14 relying on the sampling that you took for the opinions
15 that you're giving in Mr. Cowey's case?

16 A. Yes. 17 Q. And are you relying on the results from the
18 laboratories regarding those samples that you took?

19 A. Yes. 20 Q. And how long have you known that you were
21 going to rely on those -- that information, for this
22 case?

23 A. Well, I think from the time that I started
24 working on this case.

25 Q. Which was when?

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1 A. I don't specifically recall the date. A
2 couple months ago.

3 Q. Well, I'm looking at a letter from Jeffrey
4 Kemp. Do you know who he is?

5 A. Yes.

6 Q. A letter to you dated August 21st, 2003. And
7 I don't know if that's when you first got hired in this
8 case or not, but assuming it was around that time
9 period, would you have at least known by August of 2003
10 that you were going to use or rely upon the sampling
11 data and the laboratory analysis for Mr. Cowey's case?

12 A. Yes. And that data is included in Appendix A
13 of this report. It's just summarized in the report.

14 Q. What report?

15 A. The one that we're referring to from 27
16 September 2002.

17 Q. I understand that. But that date is not -
18 not referenced or summarized in the October 31st report
19 that you did in Mr. Cowey's case, is it?

20 A. We -- we utilized that data in the Cowey
21 report, from this.

22 Q. Okay. But show me in the report dated October
23 23rd of 2003, to Mr. Dillard, in the Cowey case, where
24 it lays out the sampling data and the laboratory
25 analysis.

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1 A. On Table 1. Page 2, Table 1. This is data
2 that comes from Table 3 -- I'm sorry -- Table 3, Table
3 6, and table 9, of the 27 September 2002 report.

4 Q. Yeah, but the tables that are listed in the
5 September 27, 2002 report are different than the tables
6 that are listed on the October 23rd, 2003 report,
7 correct?

8 A. Yes. They're different because we accounted
9 for the usage of solvent that Mr. Cowey indicated in his
10 testimony.

11 Q. Well, let's look at Table 6, in the 2002
12 report of findings, as an example. You see the first
13 column says, sample number, and then it says, BC-15?

14 A. Yes.

15 Q. And then it says, sampling time 120 minutes?

16 A. Yes.

17 Q. And then it's got air sample volume in liters.

18 A. Correct.

19 Q. And then benzene and air concentration, parts
20 per million?

21 A. Yes.

22 Q. Where is that data in the October 23rd, 2003
23 report?

24 A. It is reflected in -- in Table 1, on line -
25 where it says, benzene content percentage, seven

1 percent. And then it has it there twice, in that first
2 column on the left. So, it is represented -- I'm sorry.
3 This is for the seven percent. Yes, it's represented
4 twice. Both times received says seven percent, that's
5 where that data is represented.

6 Q. But where in the October 2003 report does it
7 say BC-15 sample number?

8 A. Well, we don't have the sample number there.

9 Q. Okay. Where does it say, sampling time 120
10 minutes?

11 A. Well, it doesn't say that. I don't need
12 that -- that data.

13 Q. Okay. Where

14 A. But I used the data from that Table 6 and to
15 develop the number for -- based on Mr. Cowey's
16 description of the amounts of material that he used.

17 Q. Where does it say, benzene in air
18 concentration 1.51 parts per million?

19 A. Well, it doesn't. We took the average of the
20 two numbers, where you see all the way over, the
21 calculated eight-hour time weighted average, at 0.351,
22 and we utilized that number to develop the level for
23 Mr. Cowey.

24 Q. I understand that. But how could an
25 industrial hygienist, using the October 2003 report,

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1 figure out the specifics of the samples you took,
2 without looking at the underlying data that's contained
3 in the September 2002 report?

4 A. Well, I guess that you could -- they could ask
5 me.

6 Q. But short of that -

7 A. That's kind of what we're doing now.

8 Q. Short of that, how are they supposed to do it?

9 A. They could have the two pieces of the two
10 reports, and go through them mathematically and figure
11 it out.

12 Q. Well, but I'm saying if they don't have the
13 September 2002 report, how are they supposed to do it?

14 A. Well, I -- I don't know. If they don't have
15 that report, then they need to get that report.

16 Q. Well, can you explain why it was just produced
17 to me today?

18 A. No. I can't explain that.

19 Q. Now, if you were an industrial hygienist
20 working on this case, would you want to look at the
21 underlying data and the laboratory analysis specifically
22 to offer opinions?

23 A. I'm sorry, say that again.

24 Q. If -- if you were an industrial hygienist,
25 hired on the other side of the case, not the defense

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1 side, but the plaintiff's side, would you want to see
2 the underlying data?

3 A. Yes, I would. And I guess I would ask the
4 attorney I was working with to get that information.

5 Q. Now, this September 27, 2002 report of
6 findings that you say summarizes the sampling data --
7 first of all, did I state that correctly?

8 A. Yes. 9 Q. All right. Now, my next question is: It's a
10 summary of the underlying data, correct? And you've
11 created the summary from looking at the actual
12 underlying data; is that true?

13 A. Well, we just simply transcribed what was on
14 the laboratory report into a table that was easier to
15 read.

16 Q. Well, but you told us that the underlying data
17 was roughly somewhere between 20 and 40 pages long.

18 A. Right. I was guessing. I don't know exactly
19 how long it is.

20 Q. Now, which laboratory performed the analysis?

21 A. American Medical Laboratories.

22 Q. And you've -- you've got their report of their
23 findings, correct?

24 A. Well, I don't call it a report of findings.

25 It's just a laboratory report of analysis.

1 Q. Well, does their analysis detail how they
2 performed their -- their tests, if you will?

3 A. Well, it describes the same thing that we
4 described in the report. It refers to the NIOSH
5 analytical methods that they utilized.

6 Q. And which methods did they utilize?

7 A. Let's see. I think it's NIOSH method 1500.

8 I'm just looking for where it is. I just saw it in the
9 report. Here it is. NIOSH Manual Analytical Methods
10 Number 1501-Aromatic Hydrocarbons.

11 Q. And that's the 2002 report?

12 A. Yes.

13 Q. And you learned that from looking at the --
14 the analysis done by the laboratory?

15 A. Well, that was the -- we knew that prior to
16 the laboratory doing that work.

17 Q. How did you know that?

18 A. As the industrial hygienist, I have to select
19 the appropriate air sampling and analytical methods.

20 Q. So, you knew that because you had selected the
21 analytical method that the laboratory was supposed to
22 follow; is that true?

23 A. Correct. It -- right. The same method I have
24 been using throughout my career in monitoring for
25 benzene-

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1 Q. Now, in your September 2002 report, do you
2 make any estimate of dermal exposures?

3 A. No.

4 Q. In your October 23rd of 2003 report in
5 Mr. Cowey's case, do you make any estimate of dermal
6 exposures?

7 A. No.

8 Q. Have you ever made estimates of dermal
9 exposures?

10 A. Yes.

11 Q. In benzene cases?

12 A. Yes.

13 Q. In benzene Liquid Wrench cases?

14 A. No.

15 Q. Did you have any discussion with the lawyers
16 for United States Steel Corporation about whether they
17 wanted you to estimate dermal exposure levels?

18 A. No.

19 Q. Did you tell the attorneys for United States
20 Steel Corporation not to perform any estimates of dermal
21 exposures?

22 A. No.

23 Q. Have you ever told them that?

24 A. No.

25 Q. Now, how do you go about estimating dermal

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1 exposures, just generally speaking, for benzene?

2 A. You apply the elements of a dermal flux model.

3 You have to evaluate the amount of material of benzene
4 concentration, surface area of skin being affected, the
5 length of time being affected, plug that information
6 into a model.

7 Q. Is it an approved model?

8 A. I wouldn't say it's approved. It's the only
9 dermal flux model I know about.

10 Q. Is the name of it the dermal flux model?

11 A. Yes.

12 Q. And is that something that industrial
13 hygienists, such as yourself, have been using for many
14 years?

15 A. Yes.

16 Q. Now, do you know why it is that United States
17 Steel Corporation's attorneys did not ask you to perform
18 a dermal flux model exposure estimate for Mr. Cowey?

19 A. No. I mean, I -- in my review, I did not see
20 that there was a -- a sufficient amount of material to
21 warrant such an assessment.

22 Q. What would have been a sufficient amount of
23 material to warrant such an assessment?

24 A. High benzene concentrations over large surface
25 areas of skin for extended periods of time.

1 Q. How large?

2 A. Generally, the hands and the arms are what's
3 required to really generate sufficient doses, and, you
4 know, closer to pure benzene product than something
5 with, you know, lower percentages of benzene and
6 solvent.

7 Q. How close to pure benzene?

8 A. I would say 50 percent or more.

9 Q. And are there studies that you're relying upon
10 that say that you need that type of benzene content in
11 order to perform the dermal flux model?

12 A. Well, the studies that have been done on that
13 generally are on pure benzene. In fact, I think -- I
14 believe they're all on pure benzene.

15 Q. All right. But I'm just asking you if there
16 is some sort of study or authoritative document that
17 says, if you're going to use the dermal flux model to
18 estimate skin exposures to benzene, you need to have a
19 product that contains 50 percent or more benzene in it
20 to do?

21 A. Oh, I see. No. I don't think any of those
22 papers say that. What I'm really going off is based on
23 my own experience in doing calculations, in other
24 issues, and looking at the benzene content of materials
25 and where it really begins to have some sort of impact

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1 in terms of absorbed dose through the skin. Is that
2 clear?

3 Q. And what documents are you referring to?

4 A. There is a paper by Susten, et al. I don't
5 know -- I don't recall the name of the paper. There is
6 also Maibach and Anjo, another commonly referenced paper
7 in the dermal uptake literature for benzene. Those are
8 -- those are two.

9 Q. And what do those articles say, to the best of
10 your recollection, about this particular issue?

11 A. Basically what I already described, that you
12 can have certainly absorbed benzene through the skin,
13 but over extended periods of time of contact and high
14 concentrations of benzene.

15 Q. But do either one of those studies say that
16 benzene-containing products in the range of 1 to 30
17 percent do not provide reliable results if you use the
18 dermal flux model, analysis?

19 A. Oh, no. That's what I just said a moment ago.

20 They don't say that. That's just my experience in doing
21 the calculations and looking at varying concentrations
22 of benzene.

23 Q. Well, what were Mr. Cowey's dermal exposures
24 to benzene-containing Liquid Wrench?

25 A. Very limited, if any.

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1 Q. What were they? Can you estimate them? Or do
2 you know?

3 A. No. Again, just in my own experience of
4 looking at this, it was not -- in my professional
5 judgment, just not considered a significant source of
6 exposure. And I -- I didn't see where any of the
7 plaintiffs' experts were pointing to this as a source of
8 exposure, any significant exposure.

9 Q. So, I take it, then, that if the plaintiffs'
10 experts, in your opinion, had formed opinions on dermal
11 exposures, then at that time you would have tried to
12 analyze what they were?

13 A. I certainly would have analyzed what the --
14 the plaintiffs' assumptions were, and the accuracy of
15 those assumptions.

16 I'm sorry. I meant to say the plaintiffs'
17 experts.

18 Q. Well, can you take the information from the
19 depositions and the documents in this case, and apply it
20 through the dermal flux model and get even a crude
21 estimate of his dermal exposure, or do you -- or do you
22 need more information?

23 A. I mean, certainly you can make assumptions.

24 But you know what they say about assumptions.

25 Q. Well, what --

1 A. And just in my experience, even looking at
2 this from a worst case scenario, if he had it all over
3 his hands for extended periods of time, it would not
4 have represented a -- in my professional judgment, a
5 significant source of exposure.

6 Q. Well, what was his -- what would his exposure
7 have been if, let's say, five days a week he had it on
8 his hands?

9 A. Well, again, given the time that he described
10 using this material and how he was using it, I only --
11 there wouldn't even be much of a detectable absorbed
12 concentration.

13 Q. Well, how often did Mr. Cowey get the Liquid
14 Wrench containing benzene on his hands?

15 A. Well, I'm assuming that each time he used the
16 Liquid Wrench, he got some material on his fingers and
17 on his hands each time he used it.

18 Q. Well, how long did it remain on his hands?

19 A. Well, benzene, if it's present, it might be
20 there -- it would be there moments.

21 Q. Well, how does it get absorbed through the
22 skin?

23 A. Some gets absorbed, and some of it is
24 volatilized off.

25 Q. Right. But how -- how does the benzene in

Page 39

1 Liquid Wrench, how can it get absorbed through the skin?

2 A. Through skin contact. And -- I mean, that's
3 how it's absorbed.

4 Q. And then where does it go after it's absorbed
5 by the skin?

6 A. Hello.

7 Q. Did you hear me, Mr. Spencer?

8 A. Hello.

9 Q. Hello.

10 A. Yes. I wasn't hearing anything.

11 Q. After the benzene is absorbed by the skin,
12 where does it go in the body?

13 A. It's partitioned to bloodstream, the fatty
14 tissue, and it becomes metab -- some of it becomes
15 metabolized, some passes out in the urine, some of it is
16 passed out through exhalation.

17 Q. Well, do you know how much is metabolized?

18 A. I can't cite that for you right now. It's
19 probably more a medical question than industrial
20 hygienist. But, no, I can't cite that as I sit here.

21 Q. You referenced earlier that in other benzene
22 cases you had done -- or performed this dermal flux
23 model to estimate skin exposures; is that true?

24 A. To estimate dermal uptake, yes.

25 Q. And dermal just means skin, right? That's

Page 40

1 just a fancy word for it?

2 A. Yes.

3 Q. And what was it about those cases that caused

4 you to perform the dermal flux model?

5 A. Allegations from plaintiffs' experts that that

6 was the significant route of exposure for the plaintiff.

7 Q. And what types of conditions existed? How was

8 it different than this case?

9 A. Much greater volumes of material, higher

10 concentrations of benzene. I mean, the application was

11 different. The individual was washing their hands in

12 the material.

13 Q. In benzene?

14 A. Yes.

15 Q. That's not a good thing, is it?

16 A. No.

17 Q. How long were they washing their hands in it?

18 A. I don't remember the specifics of it. I mean,

19 obviously, you're not going to wash your hands too long

20 in benzene.

21 Q. Why is that?

22 A. Because of the dermatitis issue associated

23 with a solvent like benzene.

24 Q. All right. Let me take you back to these two

25 material safety data sheets that you referenced.

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1 A. Yes.

2 Q. I think one was '78, and one, you said, was
3 roughly 2001; is that correct?

4 A. Yes.

5 Q. Let's first talk about the '78 version. Does
6 yours say Wells Exhibit Number 11 on it?

7 A. Yes.

8 MR. LUBEL: I'm going to mark that as
9 Exhibit Number 2 to your deposition.

10 (Exhibit 2 marked.)

11 Q. (BY MR. LUBEL) Did the Liquid Wrench product
12 that is referenced in Exhibit Number 2, this material
13 safety data sheet, have benzene in it?

14 A. I don't know whether it did or not.

15 Q. Then, what -- what are you using it for?

16 A. I was -- I had pulled this MSDS -- I was
17 looking at -- oh, I don't see it on here. I was looking
18 for the physical -- oh, here it is. I was looking at
19 the boiling point, range of physical properties of the
20 solvent.

21 Q. And what about that made it relevant?

22 A. I simply evaluated the boiling point of this
23 product versus the later product, and the solvent system
24 used by Radiator Specialty Company.

25 Q. But how was that information used in your --

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1 in your study?

2 A. Well, it speaks to the issue -- I had pulled
3 these materials, material safety data sheets, as a
4 result of Vernon Rose's deposition testimony, and he was
5 making an issue of the solvent system we use versus the
6 solvent system originally used by Radiator Specialty
7 Company.

8 Q. Oh, I thought you said that your September
9 2002 report references two material safety data sheets,
10 one being the 1978 version and one being the 2001
11 version?

12 A. 2001, right.

13 Q. So, does -- does your report of findings dated
14 September 27, 2002, does it reference both of these
15 material safety data sheets?

16 A. No.

17 Q. It just references the 2001 version?

18 A. I don't -- our report doesn't -- it does not
19 reference either of these. I didn't -- these, I simply
20 pulled, in response to some allegations that Vern Rose
21 was making in his deposition.

22 Q. What particular allegation?

23 A. He was not aware of the consequence of using a
24 different solvent system in our study, and the
25 volatilization of benzene from one solvent versus the

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1 other. I was going to help him clarify that.

2 Q. But what is it about Exhibit 2, the 1978
3 material safety data sheet, that clarifies that?

4 A. The boiling point of this material is
5 basically the same or lower than the boiling point of
6 the material that we used; and applying Vernon Rose's
7 literature that he provided, that is the Elkins article
8 which we have already discussed, it's clear that the
9 rate of volatilization is a function of the boiling
10 point of the -- of the solvent.

11 Q. All right. Now, what was the boiling point of
12 the Liquid Wrench solvent that Mr. Cowey was using back
13 in the '50s, '60s, and early '70s?

14 A. It appears that -- I have looked at raffinate
15 materials, and it falls within the same range that was
16 on this MSDS. I think it was 176 to I believe that was
17 228.

18 Q. Right. But I'm asking you: Do you have the
19 boiling point numbers for the Liquid Wrench, the product
20 itself, that Mr. Cowey was using before, let's say,
21 1978?

22 A. I was -- I was simply using this MSDS --
23 actually, this is prior to 1978. See, this one
24 supersedes 1978. And the boiling point of this product
25 was lower than the boiling point of the current Liquid

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1 Wrench product.

2 Q. Right. But the -- Exhibit Number 2, the
3 earlier material safety data sheet, that now you're
4 saying is prior -- that's --

5 A. I have another one here, I'm sorry, it was
6 underneath of this, but it looks like it's -- it says it
7 supersedes 7 -- the '78 -- let me see if there is a date
8 on this. I'm sorry, I missed this one. No. This is
9 1977. And this one gives the same boiling point as the
10 product of today. This is from 1977.

11 Q. All right. But my point is, do you know what
12 the boiling point of the Liquid Wrench product was,
13 let's say, in 1970?

14 A. Well, I looked up -- I don't have this here
15 with me, but I looked up raffinate, which was the
16 constituent of that product at that time, in the '60s
17 and '70s, early '70s, and it was less than the boiling
18 point of the material that we used.

19 Q. You looked up raffinate, the component of
20 Liquid Wrench, correct?

21 A. That's correct. 22 Q. And what was the boiling point?

23 A. And also cyclohex -- cyclohexane,
24 cyclohexanone, which was another component of the
25 raffinate.

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1 Q. Well, how was the constituents, the raw
2 materials, the ingredients, whatever you want to call
3 them, of the Liquid Wrench, in 1970, different from the
4 Liquid Wrench on the material safety data sheet that
5 you've referred to as '77 or '78, that we've marked as
6 Exhibit 2?

7 A. It was lower.

8 Q. Now, how do you -

9 A. The boiling point was lower.

10 Q. How did you come to that conclusion?

11 A. Looking up the constituent parts of the
12 original Liquid Wrench formulation.

13 Q. And what were the component parts of the
14 original or regular Liquid Wrench formulation?

15 A. The -- the raffinate, and it was cyclohex --
16 cyclohexanone, cyclohexane. I don't have those
17 documents here with me.

18 Q. Was there anything else in the product other
19 than raffinate and cyclohexane?

20 A. Those are two major constituents that I
21 recall. There may have been another, but I -- those are
22 the two major ones that I recall.

23 Q. Well, what's your understanding as to whether
24 the Liquid Wrench post-1978 had raffinate in it? Did it
25 or did it not?

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1 A. In 1978, it's my understanding that they --
2 that that was the point in time where they had
3 discontinued use of raffinate.

4 Q. And what were the differences in the pre-'78
5 product and the post-'78 product, as far as the
6 constituents?

7 A. Well, these MSDS's describe -- as I understand
8 it, and I -- again, I don't have this information with
9 me, they -- they changed to a -- a different solvent
10 system, more of a kerosene-like system, or a diesel-type
11 material.

12 Q. When -- when did that change take place?

13 A. 1978.

14 Q. All right. Now, which one of these two
15 material safety data sheets that you provided us with,
16 or your lawyers have, reference raffinate?

17 A. Well, these -- that's what I'm saying. I
18 looked up raffinate and the cyclohexanane -- hexane, or
19 hexanone, separately, and I -- I thought I had those in
20 my file. I don't have them. I had looked at them
21 separately, and the boiling point for those products was
22 lower than the boiling point of the product today.

23 Q. Okay. Was kerosene a component of Liquid
24 Wrench post-1978?

25 A. I don't -- I really didn't do an -- an

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1 analysis of -- I -- it's part of my recollection that at
2 some point kerosene may have been used, but I do not
3 have specifics on that information.

4 Q. Are you able to tell us the differences
5 between the actual components in the pre-'78 Liquid
6 Wrench and the post-'78 Liquid Wrench?

7 A. I am not prepared to discuss that, other than
8 from the boiling point standpoint of material pre-'78,
9 to when it had raffinate in it, to what the material is
10 now.

11 Q. Okay. Well, I'm going to go ahead and mark as
12 Exhibit 2, both of the material safety data sheets that
13 you've talked about.

14 A. Okay. 15 Q. The 2001 version, and the late '70s version.
16 Okay?

17 A. Okay.

18 Q. I'm going to digress for a minute.

19 A. Oh.

20 MR. EPPS: Lance, you marked as Exhibit
21 2, the Wells Exhibit Number 11, and what is the other
22 Exhibit 2, for my purposes?

23 MR. LUBEL: It's a material safety data
24 sheet that's in the stack of materials that you-all sent
25 me today that is dated revised October 2001.

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1 MR. EPPS: Okay.

2 Q. (BY MR. LUBEL) Are you relying on these
3 material safety data sheets for your opinions in this
4 case?

5 A. I am relying on the current MSDS, and then
6 there is other literature that I would rely on for the
7 raffinate and the cyclohexane products.

8 Q. And by current, you mean the October 1 -- or
9 October 2001 version?

10 A. Correct.

11 Q. Now, I'm going to go back to Exhibit Number 1,
12 which contains some correspondence between yourself and
13 the lawyers. In particular, when did you first learn
14 that you were an expert for both United States Steel
15 Corporation and Radiator Specialty Company?

16 A. I -- I can't give you a specific date. I -- I
17 don't know.

18 Q. At some point in time, in October, did you
19 learn that Radiator Specialty Company was paying half
20 your bill?

21 A. I -- again, I just -- I don't know when that
22 came to be.

23 Q. At any rate, you found it out at some point?

24 A. I was aware of that because I was aware that
25 they were certainly working, I guess, together.

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1 Q. Together, you mean work together between U.S.
2 Steel Company and Radiator Specialty Company?

3 A. Yes. If that's the proper terminology.

4 Q. I think it fits this case.

5 Now, when you performed the work in August of
6 2002, that led to the report of findings in September of
7 2002, were you doing work for both Radiator Specialty
8 Company and United States Steel Corporation?

9 A. No. I did not make that distinction. I was
10 just looking at the -- the product on its own merits,
11 and I wasn't making a distinction or differentiation.
12 So I can't answer that.

13 Q. Well, who -

14 A. I don't know.

15 Q. Who were you reporting to?

16 A. I was talking with the folks at Fulbright &
17 Jaworski primarily, and Mr. Epps.

18 Q. All right. Now, when you prepared this
19 report, what case were you preparing it for?

20 A. I'm sorry, which report are you talking about
21 now?

22 Q. The September -

23 A. The 20 -

24 Q. The 2 September 2002 report.

25 A. I -- I don't know. I don't know if there was

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1 a specific case. I was working with Mr. Epps at that
2 time.

3 Q. And you were reporting to Fulbright & Jaworski

4 A. No. At that time, it was -- it was simply

5 Mr. Epps. I'm sorry, I thought we were talking about
6 the Cowey case in particular.

7 Q. Well, did you understand when you were doing
8 this work, it was to be used in litigation?

9 A. I certainly believed that that would have been
10 the case, yes.

11 Q. Now, when I look at the bills, in particular
12 the first bill, dated September 30th, 2003, where you
13 billed Fulbright & Jaworski, Jeff Kemp, in the Cowey
14 case, there's a reference to exposure recon --

15 A. Uh-oh.

16 Q. -- exposure reconstruction. What was that?

17 A. That would have been, I think, for the Cowey
18 case.

19 Q. All right. But then there is another bill,
20 dated October 31st of 2003, where there's an entry for
21 exposure assessment and exposure reconstruction several
22 times.

23 A. Okay.

24 Q. What is that about?

25 A. The same thing.

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1 Q. And there's a check in here from the law firm
2 of Coats, Rose, Yale, Ryman & Lee, private corporation.
3 Who are they?

4 A. I believe that's -- that's the law firm for
5 Radiator Specialty Company.

6 Q. And then there is also a check from a company
7 called Avonite, Incorporated. Who is that?

8 A. I don't know.

9 Q. Hmm. Just got a check and deposited it,
10 right?

11 A. Well, I usually don't even see them.

12 Q. Who do they go to?

13 A. Bookkeeper.

14 Q. Who is that?

15 A. Someone that works in my office.

16 Q. What is -

17 A. Part-time.

18 Q. What is that person's name?

19 A. I prefer not to give her name.

20 Q. Why?

21 A. She's not a part of the litigation.

22 Q. But she works for your company, that's
23 involved in litigation.

24 A. Well, I am involved in the case, and my
25 company. She's not.

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1 Q. Well, what are her responsibilities?

2 A. Her responsibilities are just helping manage
3 and run the office.

4 Q. Well, does she answer the phone?

5 A. Sometimes, yes.

6 Q. So, she'll be talking to some of your clients,
7 won't she?

8 A. Generally, she does not, other than just
9 answering the telephone.

10 Q. Well, does she accept correspondence, and then
11 put it on your desk for you to review?

12 A. Well, she might handle the mail when it comes
13 in, and then put it on my desk.

14 Q. But that would include mail from your clients,
15 right?

16 A. Sure.

17 Q. How long has she been working for you?

18 A. Several years.

19 Q. Did she take somebody's place?

20 A. I had a bookkeeper prior to that, yes.

21 Q. Who was that?

22 A. Another woman.

23 Q. Do you not want to tell us her name either?

24 A. No. I see no need to bring their names into
25 this litigation.

Page 53

1 Q. Well, who else works for you other than the
2 un-named bookkeepers and yourself?

3 A. I have several other people, industrial
4 hygienists, environmental scientists, programmers.

5 Q. Well, can you tell us their names?

6 A. There's Mark Nealley, Marc Plisko, Leonard
7 Burrelli.

8 Q. Well, did any of those people work on the
9 Cowey case?

10 A. Marc Plisko has certainly. I -- I have --
11 have had him do some research and assist me in some
12 aspects of this, yes.

13 Q. Okay. What did -- what in particular did he
14 help you with?

15 A. He is involved in doing research, looking up
16 chemical information, working with me on the modeling
17 itself, to have somebody to bounce things off of, and
18 try not to work in a vacuum.

19 Q. And do you have any notes regarding any of his
20 findings?

21 A. No. That -- no.

22 Q. Where would they be?

23 A. There aren't any.

24 Q. What about e-mails?

25 A. I'm sorry?

Page 54

1 Q. Do you-all e-mail each other?

2 A. No.

3 Q. So you-all just communicate in person?

4 A. Yeah. Yeah. Right down the hall.

5 Q. So the work he would have done would have been
6 communicated orally to you? There wouldn't be any
7 notes?

8 A. That's correct.

9 Q. Well, did he perform any calculations?

10 A. We actually worked on -- in doing calculations
11 together and double-checking one another, yes. So to
12 that extent, yes.

13 Q. Where are his calculations?

14 A. Well, the same as my calculations.

15 Q. He didn't independently do the calculations?

16 A. He -- sure. He made -- he probably did at
17 some point, just to verify that -- of doing things
18 correctly.

19 Q. And then where would his version go? In the
20 wastebasket?

21 A. I would suspect the trash.

22 Q. Okay. Did anything else get trashed other
23 than his notes or calculations?

24 A. No. Not that I'm aware of.

25 Q. Now, who did the deposition summaries?

Page 55

1 A. I did that -- well, I wrote them.

2 Q. I've got a typed version. Who typed them?

3 A. Yeah. That's an administrative assistant in
4 my office.

5 Q. Who's that?

6 A. Another young woman that works for me.

7 Q. What is that young woman's name?

8 A. I prefer not to give her name.

3

9 Q. How long has she worked for you?

10 A. About a year.

11 Q. And did she take the place of somebody?

12 A. Yes.

13 Q. And what was the name of the person she took
14 the place of?

15 A. I prefer not to give that name.

16 Q. Is there some secret that I'm -- that you've
17 got that I'm not aware of?

18 A. Just not -- I don't like to be casual about
19 giving out personal information about people that --
20 that goes onto a public record.

21 Q. So, if I wanted to take their deposition, you
22 wouldn't agree to it?

23 A. Oh, no. I -- they wouldn't know anything
24 anyway, no, but I certainly wouldn't have any reason to',
25 agree to that.

Page 56

1 Q. What would there be to hide?

2 A. I don't think there would be anything to hide.

3 There would be nothing to gain.

4 Q. So, what is the name of the administrative
5 assistant that took your notes of the depositions, and
6 then transcribed them?

7 A. You've already asked me that.

8 Q. Is that another secret person?

9 A. No. It's the same secret person.

10 Q. Okay. All right. I only show deposition
11 summaries of two of Mr. Cowey's depositions, and one of
12 Ms. Cowey's. Is that your recollection?

13 A. You said Mrs. Cowey as well?

14 Q. Yes, sir.

15 A. Yes.

16 Q. Did you summarize the -- the third deposition
17 of Mr. Cowey?

18 A. It's not here? Yeah. I know I looked at all
19 the depositions, yes.

20 MR. LUBEL: Do you have that, Carl?

21 MR. EPPS: Do I have another deposition
22 summary?

23 MR. LUBEL: Yeah. I don't have it in the
24 stuff you-all gave me.

25 MR. EPPS: No. I sent you what I have.

Page 57

1 THE WITNESS: Well, then, that's my
2 fault. I didn't even check that. I just -

3 MR. LUBEL: I'm going to go ahead and
4 mark as Exhibit 3 the deposition summaries that I have.
5 Okay?

6 THE WITNESS: Great.

7 (Exhibit 3 marked.)

8 MR. LUBEL: And then if you don't mind,
9 we're going to take a short rest room break.

10 THE WITNESS: Okay.

11 MR. EPPS: Let's just keep the lines
12 open.

13 MR. LUBEL: Yeah. I'm not going to hang
14 up.

15 MR. EPPS: Right. And I'll do the same
16 thing. Be back in, what, two minutes?

17 MR. LUBEL: Two or three would be great.

18 MR. EPPS: Be great. Okay.

19 (A break was taken from 5:29 to 5:36.)

20 Q. (BY MR. LUBEL) Mr. Spencer, I'm going to mark
21 as Exhibit Number 4, the September 27, 2002 report of
22 findings. Are you with me so far?

23 A. Yes.

24 (Exhibit 4 marked.)

25 Q. (BY MR. LUBEL) And you have got that with

Page 58

1 you, correct?

2 A. Yes.

3 Q. And then I'm going to mark as Exhibit Number

4 5, a copy of your October 23, 2003 report, in the Cowey

5 case. And you have got that in front of you, too,

6 right?

7 A. Yes.

8 (Exhibit 5 marked.)

9 Q. (BY MR. LUBEL) And then I think in the

10 materials that I have, that your lawyers provided me

11 today, there is actually -- it looks to be two copies of

12 the Dr. Elkins' article. You've got that, too, right?

13 Have you got that in front of you?

14 MR. EPPS: Now, is this the two copies of

15 the Industrial Benzene Exposure?

16 MR. LUBEL: Yeah, from Petroleum Naphtha.

17 MR. EPPS: Okay.

18 MR. LUBEL: It starts on page 99.

19 Q. (BY MR. LUBEL) Do you see that, Mr. Spencer?

20 A. Yes.

21 MR. LUBEL: Okay. I'm going to mark

22 that as Exhibit Number 6.

23 (Exhibit 6 marked.)

24 Q. (BY MR. LUBEL) And let me visit with you

25 about Exhibit 6, the Elkins' article. That's a 1963

Page 59

1 article, correct?

2 A. Yeah. I read the date earlier. '63. Yes.

3 Q. Okay. When is the first time that you

4 reviewed that article, if you remember?

5 A. Boy, that's sometime ago. Several years ago.

6 I mean, that I recall from having first reviewed it. I

7 may have seen it before then.

8 Q. All right. Now, is this -- I take it that

9 since your lawyers provided me with this, that this is

10 an article that you're both reviewing and relying upon

11 for your opinions in this case?

12 A. I certainly have reviewed it. I don't -- I am

13 only relying on it from the standpoint that we discussed

14 earlier, as to Vernon Rose's allegations.

15 Q. Well, doesn't this Elkins' article provide

16 surrogate information?

17 A. No.

18 Q. Why not?

19 A. Well, you're talking about an industry that is

20 using approximately 1,000 -- I don't know, nearly 800

21 pounds or so, over 1,000 gallons a day, of naphtha

22 material, and using -- and I believe that converts to

23 about -- I think it was about 11 pounds of -- of benzene

24 a day that's being used.

25 So, your mass is an extraordinary excess of

Page 60

1 what Mr. Cowey would have used in using ounces of Liquid
2 Wrench a day. So, because of the mass issue, it is not
3 relevant in any way, shape, or form.

4 Q. Where in the article does it give you the mass
5 information? What page?

6 A. It gives you the number of gallons, and you
7 can calculate it based on the specific gravity of
8 benzene.

9 Q. Where is the number of gallons?

10 A. I have to review the article. Let me see.

11 I believe you have to go to -- it refers you to Elkins
12 one. It's the paper before this. It was another paper
13 that Vernon Rose had produced. And it talks about -- I
14 think it was in that paper that talked about the amounts
15 of material.

16 Q. All right. But where in the Elkins two
17 article does it refer to that?

18 A. Well, I don't -- again, I don't know that it's
19 in this article -- let me read through here. My memory
20 says it was from the first phase of this article, the
21 other paper that you should have. Your expert produced
22 it.

23 Q. Do you have it?

24 A. I don't have it here with me. I don't see it
25 here. I believe it's from the first phase of this --

Page 61

1 this study.

2 Q. All right. Well, let me -- let's look at the
3 study that we both have in front of us that we have
4 marked as Exhibit Number 6. In particular, if you'll
5 turn to the last page.

6 A. Okay.

7 Q. You see the Table 6?

8 A. Yes.

9 Q. What does Table 6 represent?

10 A. These were area sampling points.

11 Q. Where?

12 A. Well, it says, near rubber spreader and near
13 storage barrel, two more near spreader and another one
14 near storage barrel.

15 Q. But what are they sampling?

16 A. I'm sorry, what are what?

17 Q. What are they sampling?

18 A. Well, they sample for the total vapor
19 concentration, and then benzene concentration.

20 Q. But what are they taking a sample of? Is it a
21 product in the air?

22 A. I think this was an air sample.

23 Q. Okay. But where is the -- where is the --
24 what is the product that they're looking at?

25 A. This was in the -- the rubber plant.

Page 62

1 Q. I understand that. But what product are they
2 sampling?

3 A. You have to go back to the previous paper.

4 They refer you back. If you go back to page 101, and
5 look in the last paragraph.

6 Q. Right. But I'm just -- in Table 6, on the
7 last page of this article that we have marked as Exhibit
8 Number 6, you said that they were referring to
9 sampling --

10 A. Uh-huh. 11 Q. -- in various areas. And I'm trying to figure
12 out, are they sampling exposures of vapors including
13 benzene from a product called naphtha?

14 A. Yes. 15 Q. Now, where was the naphtha made? Who made it?
16 Who was the product manufacturer?

17 A. I don't know that I know who made the naphtha.
18 I'm not sure if it's described in the previous article
19 or not. I don't recall that.

20 Q. But is it your understanding, from looking at
21 least at this particular article, that the samples are
22 at different areas within the plant where this product,
23 petroleum naphtha, is being used?

24 A. Yes. I mean -- and that's the other problem.
25 They're area samples and not personal samples.

Page 63

1 Q. Okay. We'll get to that in a minute.

2 A. Area samples tend to overstate the exposure.

3 Q. Well, let's talk about the area samples.

4 That's what you're talking about in Exhibit Number 6,
5 Table 6, on the last page?

6 A. Yes.

7 Q. How many different areas are they sampling?

8 A. I can't tell from this.

9 Q. Doesn't it look like five different areas?

10 A. I don't know if they're different areas or
11 not.

12 Q. Well, aren't they sampling different products
13 of naphtha that contain different content of benzene?

14 A. Well, there is -- where it says, near
15 spreader -- I mean, it may be exactly the same location,
16 they just did the -- the analysis of the benzene
17 content, and it -- and it varied. So, I don't know. It
18 doesn't clarify that.

19 Q. But from reading this article, did you learn
20 that the purpose of it was to study petroleum naphthas
21 that had varying amounts of benzene content?

22 A. Yes. But, again, in mass quantities. Huge
23 quantities of naphtha were being used.

24 Q. But the benzene content within the naphtha was
25 less than three percent, correct?

Page 64

1 A. Yeah. I guess if you round off the last
2 three, they would be around three percent, yes.

3 Q. Well, the first two are 1.6 percent?

4 A. That's correct.

5 Q. And if you look at the discussion paragraph on
6 the last page, do you see that?

7 A. Yes. 8 Q. That's got the conclusions of the article,
9 correct?

10 A. Yes, it does.

11 Q. And if you read with me the first sentence,
12 says, "The above findings indicate that the benzene
13 hazard which may result from the use of petroleum
14 naphtha containing benzene is considerably greater than
15 would be assumed from the benzene content, based on
16 conventional units of measurement." Did I read that
17 correctly?

18 A. Yes.

19 Q. Do you disagree with that conclusion?

20 A. I do not disagree with that, but you have to
21 remember to put it in con -- proper context.

22 Q. And then the second sentence goes on to say,
23 "The degree of difference depends on a number of
24 factors, including the cut of naphtha, its naphthinic
25 effects of most aliphatic hydrocarbons, attention should

Page 65

1 be paid to the benzene exposure which may result from
2 the use of naphtha containing as little as two percent
3 benzene and possibly even less." Did I read that
4 correctly?

5 A. Yes.

6 Q. Do you disagree with that conclusion?

7 A. I -- I do not, in the context of them using
8 thousands of gallons of naphtha

9 Q. Now, is it your testimony that when you look
10 at Table 6 in this article --

11 A. Yes. 12 Q. -- that where it refers to the locations, like
13 the first location says, "Near rubber spreader," do you
14 see that?

15 A. Yes. 16 Q. And it says, benzene and solvent by weight
17 percentage 1.6 percent.

18 A. Yes.

19 Q. Are we on -- are you reading the same area I
20 am?

21 A. Yes.

22 Q. All right.

23 A. Where is it near the rubber spreader?

24 Q. Well, let me finish my question.

25 A. Okay.

Page 66

1 Q. Is it your testimony that at the rubber
2 spreader, where this table listed, that they were using
3 thousands of gallons of naphtha right there?

4 A. It was approximately -- they would use
5 approximately 1,000 gallons of naphtha per day.

6 Q. And you're saying that was near the rubber
7 spreader on the entry on Table 6?

8 A. Yes. That's my understanding from the -- from
9 my recollection of the -- phase 1 of the -- of this
10 paper.

11 Q. What is Raoult's law?

12 A. It is a -- a discussion of the physical
13 properties of a chemical constituent as to regards their
14 vapor pressure and the effect of altering up vapor
15 pressure as a result of mixture with other chemicals.

16 Q. Now, did you apply that particular Raoult's
17 law in your analysis?

18 A. No.

19 Q. Is it still a good law?

20 A. Yes. I think it's still a good law.

21 Q. And then if you -- if you're at the -- if
22 you're -- if you look at the front page of the article,
23 do you see the abstract portion?

24 A. Yes.

25 Q. The second sentence says, "Because of this,

Page 67

1 the benzene vapor concentration resulting from the
2 handling of such mixtures will frequently be higher than
3 would be expected from the composition of the solvent."

4 Do you agree with that statement?

5 A. Well, I agree that's -- that's what they
6 found -- found in this study, yes.

7 Q. But do you agree with that proposition, that
8 you can have a mixture that has benzene at low levels,
9 meaning less than three percent, that result in exposure
10 levels that would be higher than you would expect, by
11 the mere content, weight of the benzene in the mixture?

12 A. Well, based on if you're simply applying
13 Raoult's law, that -- that is their point in this
14 article, yes. Of course, that's not what I was using.

15 Q. Well, does this article at least stand for the
16 proposition that the percentage of benzene in a mixture,
17 even if it's low, is not necessarily indicative of what
18 the exposure levels will be?

19 A. If you're using Raoult's law, yes, that's what
20 they're saying, but that's -- that's for Raoult's law.
21 We didn't use that.

22 Q. The next article that I have, and I'll mark as
23 Exhibit 7, is titled, "Estimating Exposure Intensity in
24 an Imperfectly Mixed Room."

25 A. Yes.

Page 68

1 (Exhibit 7 marked.)

2 Q. (BY MR. LUBEL) Have you reviewed that?

3 A. Yes.

4 Q. Are you relying upon it?

5 A. Yes.

6 Q. What are you relying upon that article for?

7 A. It is a -- an article describing the use of
8 modeling, in particular, the Near Field-Far Field model,
9 in conducting industrial hygiene evaluations.

10 Q. And how is it relevant to this case?

11 A. It is a secondary review of the calculated
12 exposures and the measured exposures during the use of
13 Liquid Wrench with varying levels of benzene.

14 Q. You're not -- you're not testifying that this
15 article talks about Liquid Wrench, are you?

16 A. That's correct.

17 Q. It does?

18 A. No. I'm not -- no. I agree with what you
19 just said.

20 Q. All right. In other words, is Exhibit Number
21 7, this particular article, relevant to you because it
22 provides published information that the Near Field-Far
23 Field model itself is -- is appropriate to use?

24 A. Right.

25 Q. Is that basically why you're using the

Page 69

1 article?

2 A. Yes.

3 Q. All right. Are there any other reasons that

4 you're using it?

5 A. No. 6 Q. Okay. Then, Number 8 I'm going to mark are

7 some notes, and at the top, it says, "Near Field-Far

8 Field model." Do you have those notes?

9 A. I'm sorry, which notes are those? Oh, okay.

10 Yeah. On a graph paper?

11 Q. I don't know if you'd call that graph paper.

12 MR. LUBEL: Would you?

13 MR. RILEY: Yeah.

14 Q. (BY MR. LUBEL) At the bottom, it says,

15 "Radius equals two-and-a-half?"

16 A. Yes.

17 Q. And the pages are numbered.

18 A. Yes.

19 Q. And it goes 1 through 6, and then page 7 is a

20 graph?

21 A. Yes.

22 Q. It says, "Percent benzene," at the bottom, do

23 you see that?

24 A. Yes. 25 Q. And then the last page starts with, "Sample

Page 70

1 calculation," and that page is not numbered?

2 A. Correct.

3 MR. LUBEL: All right. We're going to

4 mark that group of documents as Number 8.

5 (Exhibit 8 marked.)

6 Q. (BY MR. LUBEL) Are you with me?

7 A. Yes.

8 Q. Okay. And do you have that in front of you?

9 A. Yes.

10 Q. Okay. When did you prepare this document?

11 A. This -- I'm not sure of the exact time I

12 prepared it. Probably the time in which I was doing the
13 report, somewhere at that time frame.

14 Q. Which report?

15 A. The 23 October.

16 Q. Okay. So you think this are -- these are

17 notes from the October 23, 2003 report?

18 A. Yeah. This -- we may have done it -- I may

19 have done this following that, just to put some neater

20 notes together that -- that showed the various

21 parameters used in developing the model.

22 Q. Okay. Now, did you develop the model, or did

23 you use a model that was already in existence?

24 A. The latter.

25 Q. I mean, you didn't develop this model,

Page 71

1 correct?

2 A. Correct.

3 Q. All you did was you made certain assumptions

4 based upon information you had had, and plugged it in

5 the model; is that a fair assessment?

6 A. Yes. 7 Q. And would the first part of page number 1,

8 above the first line, constitute the model itself?

9 A. Yes.

10 Q. And then you have one percent by volume?

11 A. Yes.

12 Q. What does that indicate?

13 A. That is a -- a scenario in terms of what the

14 amounts of benzene is in a one percent of solution of

15 Liquid Wrench.

16 Q. All right. And then going down under the

17 first line on page 1, do you see where it says, "Daily

18 usage equals 1.6 ounces"?

19 A. Yes. 20 Q. And then you've got several lines that follow

21 that. What does that refer to?

22 A. It's a -- this is from Mr. Cowey's testimony,

23 and the amounts of material, Liquid Wrench, that he used

24 on an annual basis.

25 Q. 1.6 ounces on an annual basis?

Page 72

1 A. No. It says, daily usage, right there.

2 Q. Okay.

3 A. But this is based on his description of his
4 annual use.

5 Q. And did you understand his annual use to be
6 somewhere between three and six gallons?

7 A. Yes.

8 Q. And is that noted in here?

9 A. It's -- it's -- well, it's noted by the daily
10 usage, and then we have it down at the bottom of the
11 page, daily usage, 3.2, so that's three to six -- that
12 correlates to three to six gallons per year. Just have
13 to do the math.

14 Q. All right. Where is the six gallons
15 referenced in your math?

16 A. Down at the very bottom, it says, daily usage,
17 3.2 ounces.

18 Q. On the first page? Are you talking about on
19 the first page, Mr. Spencer?

20 A. Yes.

21 Q. You have daily usage, 3.2 ounces, correct?

22 A. 3.2?

23 Q. Is that what you have down there?

24 A. Yes.

25 Q. Where is the reference to six gallons?

Page 73

1 A. Well, you just have to back calculate it out
2 of there.

3 Q. Well, how would you back calculate?

4 A. You know, you convert gallons to ounces and
5 then divide by 250 days.

6 Q. And how did you come up with 250 days?

7 A. That's a typical work year.

8 Q. For -- for what kind of worker?

9 A. For a U.S. worker.

10 Q. That assumes what -- how long for vacations?

11 A. I think generally like two weeks.

12 Q. And then the rest is weekend days?

13 A. Yes, weekends.

14 Q. Do you know if Mr. Cowey worked on the
15 weekends?

16 A. He may have from time to time, yes.

17 Q. Are you assuming he did or did not?

18 A. Well, it doesn't -- it doesn't really matter
19 whether he did or not.

20 Q. I'm just asking you whether you're assuming
21 whether he did or did not work on the weekends.

22 A. Yeah, I'm assuming that he could have done
23 that from time to time, yes.

24 Q. But wouldn't you have come up with more than
25 240 or 250 days?

Page 74

1 A. Well, see, it -- I could have, but it wouldn't
2 matter. We're just going with the volume of material
3 that he testified to using.

4 Q. All right. And then on page 2

5 A. Okay.

6 Q. -- what are those calculations for? Did you
7 hear my question?

8 A. No. 9 Q. What are the calculations on page 2
10 representative of? What are they for?

11 A. It converts ounces to milligrams.

12 Q. So, let's go to the -- under Section 1, where
13 it has one percent, and then you have 0.473 ml, where
14 did you get that number?

15 A. That's a conversion based on one percent of
16 benzene. It's the number of ounces times the specific
17 gravity.

18 Q. And that gives you .473 ml?

19 A. Actually, I'm sorry, you convert ounces to
20 milliliters, and then you multiply by a specific gravity
21 to get the number of grams, and then ultimately
22 milligrams.

23 Q. So, what does the 0.88 g/ml represent?

24 A. That's the specific gravity of benzene.

25 Q. All right. Then, why under one percent for

Page 75

1 3.2 ounces per day is the number .946 ml instead of .743
2 ml?

3 A. Because you have twice the amount of material.

4 Q. So you just doubled it?

5 A. Correct.

6 Q. All right. Now, let's move on to Page 3.

7 What calculations are you making here at the top of Page
8 3?

9 A. This is one of the components of a model
10 that's the benzene generation rate in terms of
11 milligrams per hour. In this case, we calculate how
12 many milligrams over -- that he would have utilized or
13 were generated in an eight-hour day.

14 Q. Assuming that he used the same amount over the
15 eight hours?

16 A. Well, assuming that he -- it was used over an
17 eight-hour period, yes.

18 Q. Used what over an eight-hour day? Liquid
19 Wrench?

20 A. Yes.

21 Q. So, are you assuming that he's using one
22 percent benzene, for instance, in the top?

23 A. Yes. One percent, seven percent and 30
24 percent.

25 Q. But let's take one percent as an example. Are

Page 76

1 you assuming that he's using one percent benzene-
2 containing Liquid Wrench equally over an eight-hour day?
3 Equal amounts continuously over an eight-hour day?

4 A. Yes. I mean, you can make that assumption, or
5 you can put it into a -- you know, a 15-minute period,
6 either way.

7 Q. But this -- these particular calculations on
8 this page are not for 15-minute intervals, correct?

9 A. That's correct.

10 Q. And then where you've got -- under one percent
11 you've got 416 milligrams over 480 minutes, where did
12 you get the 416 milligrams?

13 A. If you go back to the previous page, one
14 percent benzene, and given the amount of material that
15 he's using, 1.6 ounces per day, that comes to 416
16 milligrams of -- of benzene.

17 Q. Now, do you have a calculation to determine
18 what Mr. Cowey's exposures would be if he used, let's
19 say, four ounces?

20 A. Well, we have it for the 3.2 ounces, which,
21 again, goes back to what he described in his testimony
22 in terms of the range.

23 Q. But I'm talking about

24 A. No, I don't have it for four, no.

25 Q. No, I'm talking about for roughly four, but

Page 77

1 over a shorter period of time, as opposed to over --

2 A. I do not have that, no.

3 Q. Now, the second part of Page 3 talks about the
4 work area volume?

5 A. Yes. 6 Q. How did you calculate that?

7 A. We basically selected what would generally be
8 considered a -- an overall for the far field, a
9 relatively small work area.

10 Q. How many square feet?

11 A. I think that was a discussion in Mr. Cowey's
12 deposition. I'm not -- I need to go back and look at
13 that where he may have actually described some of the
14 dimensions of his workshop. That's what I have here in
15 the notes.

16 Q. So you believe he -- you took the dimensions
17 from the deposition, you believe?

18 A. Yes.

19 Q. How many square feet was his workroom?

20 A. About -- oh, square feet?

21 Q. Right.

22 A. I don't know. Six to 800 square feet.

23 Q. And you've got 4,096 cubic feet?

24 A. Yes.

25 O. And then you've got some calculations below --

Page 78

1 below that. What does that represent? Still on Page 3.

2 A. Yeah. We're just converting it to cubic
3 meters.

4 Q. You're still just calculating the work area?

5 A. Yes.

6 Q. All right. Now, where do you factor in the
7 work area, in the notes on Exhibit 8 that we're looking
8 at?

9 A. I'm sorry, say it again.

10 Q. Do you take the information, your calculation
11 from the work area that you made on Page 3, and do you
12 use those somewhere else in this document?

13 A. I'm sorry, you broke up on that.

14 Q. Did you take the calculations you made of his
15 work area and use them anywhere else in performing
16 calculations?

17 A. Well, they go into this overall model.

18 Q. But I'm talking about in Exhibit 8, do you use
19 that information anywhere?

20 A. No. 21 Q. Let me be more specific. I'm wondering if you
22 plug in the data that you got regarding his work area
23 into anything else on Exhibit 8.

24 A. Well, it -- it goes into the model.

25 Q. What page number on Exhibit 8?

Page 79

1 A. Well, ultimately, it goes into the -- the
2 un-numbered page that shows the iterations of the
3 calculation.

4 Q. The last page?

5 A. Yes.

6 Q. Can we see that from looking at the last page?

7 A. It -- it goes into the -- on into the Q, in
8 that formula.

9 Q. The Q in both the numerator and in the
10 denominator?

11 A. Well, it -- basically into the numerator of Q.

12 Q. So, that would be the top of the fraction?

13 A. Correct.

14 Q. What does the Q on the bottom of the fraction
15 represent?

16 A. Minutes. Per minute.

17 Q. All right. Let's go back into -- let's go
18 back into Exhibit Number 8, and let's look at page 4,
19 the very next page.

20 It says, NF/FF calculation, is that Near
21 Field-Far Field calculation?

22 A. Yes. 23 Q. Now, in these calculations that are shown on
24 Exhibit Number 4, are you using any of the sampling
25 data, or are you just solely using a model?

Page 80

1 A. Well, we're using the amounts of material, and
2 that's in terms of calcu -- for calculating generation
3 rate, number of milligrams per minute.

4 Q. Okay. And does the calculation estimate
5 exposure levels, on page 4?

6 A. That's what ultimately goes into, you know,
7 running the model, and coming up with values.

8 Q. Well, but here's my question: Is the
9 information that you've calculated on page 4, is that
10 information or data that you plug into a model?

11 A. Yes. 12 Q. So, it's not actually plugging in everything
13 into the model and spitting it out on page 4, correct?

14 A. Well, all this information goes into the
15 model.

16 Q. I understand that. But I thought you told us
17 earlier that you did not model his exposure estimates
18 except to the extent that you used data from the
19 sampling?

20 A. No. No. We did modeling as well. That's in
21 the report, too.

22 Q. But the modeling -- you're talking about the
23 October 23rd report?

24 A. Yes. 25 Q. But I thought the data that you used in that

Page 81

1 model came from the sampling.

2 A. No. We used actual data, and then we did
3 modeling data. If you look at the header of each table,
4 there are three tables in the report, and it describes
5 that.

6 Q. All right. So, page 4 is the backup for the
7 tables that have the Near Field-Far Field modeling
8 information in your report, correct?

9 A. That's right. Yes.

10 Q. Okay. Now, let's -- let's go down to -- page
11 4 says, one percent, does that mean one percent benzene
12 in the Liquid Wrench?

13 A. Yes. 14 Q. All right. Now, where did you come up with
15 the G? The .86 --

16 A. That's based on the total amounts of material
17 generated, and -- in terms of number of milligrams, and
18 then we converted that from milligrams per hour to
19 milligrams per minute.

20 Q. Now, does your model take into account the
21 temperature?

22 A. The temperature is a standard temperature and
23 pressure.

24 Q. What was the standard temperature that you
25 used?

Page 82

1 A. Say again.

2 Q. What was the standard temperature that you
3 inputted into the model?

4 A. It would have been a range of 70 to -- we
5 didn't -- it's based on standard temperature and
6 pressure. Would have been 72, you know, 75 degrees
7 Fahrenheit.

8 Q. And what about the pressure?

9 A. Again, pressure -- would have been standard
10 pressure.

11 Q. What is standard pressure?

12 A. 760 millimeters of mercury.

13 Q. So you plug those into the Near Field-Far
14 Field model?

15 A. It's already built in.

16 Q. Now, does -- does the calculation on Exhibit
17 Number 4 take into account the relative evaporation
18 rates of the other mixtures in the regular Liquid
19 Wrench?

20 A. This assumes that everything -- yes, it does.

21 Q. How does it do that?

22 A. It assumes that everything is evap -- all the
23 benzene is evaporated.

24 Q. How soon?

25 A. I mean, you can look at it in minutes, or --

Page 83

1 or over a day -- over the day.

2 Q. Well, how long does it take it to evaporate?

3 A. You know, it just -- it -- that will vary.

4 Q. Well, what did you use?

5 A. Well, we -- I looked at it both ways. We
6 calculated it over the entire day, in order to compare
7 to an eight-hour time-weighted average for permissible
8 exposure values, but I also looked at it based on a
9 15-minute period.

10 Q. Is the 15-minute period on page 4?

11 A. No.

12 Q. Is it in Exhibit 8, this document we're
13 talking about?

14 A. No. That's just something -- I just ran the
15 model and looked at the numbers.

16 Q. Right. But did you perform a model on -- for
17 a 15-minute time basis?

18 A. Yes.

19 Q. And are there any notes to reflect that?

20 A. No.

21 Q. Is it in your October 23rd, 2003 report?

22 A. No, it's not.

23 Q. Okay. Where is it?

24 A. Well, it's not anywhere. I -- I simply just
25 ran this on a spreadsheet to look at the numbers. We --

Page 84

1 our goal was to look at the eight-hour time-weighted
2 average for comparison with health standards.

3 Q. But do you have this spreadsheet for the
4 15-minute interval?

5 A. No, I do not. I didn't save it.

6 Q. Does Mr. Epps have it?

7 A. No.

8 Q. Why did you trash that?

9 A. It -- I didn't really trash it. I just
10 wasn't -- I just looked at it for curiosity sake.

11 That's all. Doesn't change anything.

12 Q. What did you do with it?

13 A. It's the same amount of material, just over
14 a -- different points in time.

15 Q. Well, doesn't benzene evaporate pretty fast?

16 A. It could. It depends on what's being applied
17 to it. It may -- you know, if it falls into the ground,
18 it may partition the soil, or whatever other medium is
19 being contacted with.

20 Q. Well, let's say you put it on a rusty bolt.

21 A. Well, again, we've assumed in this modeling
22 that it's all evaporated.

23 Q. Well, how soon?

24 A. Over several minutes, or over an eight-hour
25 day.

1 Q. Well, which one is it? Is it over several
2 minutes that you assumed, or over an eight-hour day?

3 A. Well, that's what I'm telling you, I looked at
4 it both ways.

5 Q. Okay. Where in your calculations does it
6 represent it evaporating over several minutes as opposed
7 to over an eight-hour day?

8 A. Yeah. I've only presented the eight-hour
9 samples, again, as I've now stated for three times, to
10 compare to the eight-hour time-weighted average.

11 Q. Well, can you tell us what the results were
12 over the two-minute period?

13 A. Generally, for the -- it was below --
14 certainly all the data was below the occupational health
15 standards of the time. It was well below those numbers.

16 Q. Well, can you tell us what the data showed for
17 this approximate two-minute period where the benzene
18 evaporates?

19 A. Yeah. Let's see. I can tell you generally.
20 Which one?

21 Q. I'm asking you what your result -- I'm not --
22 I'm asking you what your results told you that you no
23 longer have that was on the spreadsheet.

24 A. Okay. For the -- let me -- let me give you a
25 number real quick. That was approximately, for the one

1 percent solution, it was approximately point -- 0.16
2 part per million for a 15-minute period.

3 Q. But I thought you said you did a two-minute
4 period.

5 A. No, I didn't say that. I wouldn't have any
6 reason to do that.

7 Q. All right. Well, what period did you do for
8 this spreadsheet?

9 A. I did eight-hour. 10 Q. No. But you had -- you talked about a
11 spreadsheet that you did that you -- you didn't report
12 the results.

13 A. Well, I just plugged the numbers into this
14 model, and it comes up on the computer. You look at it
15 and you save it or you don't. I didn't have any need
16 for saving it.

17 Q. Where is that spreadsheet, that data?

18 A. Like I -- I did not save that data. It was
19 simply on the screen. And I plugged in the other
20 numbers, and then printed that out.

21 Q. Well, why didn't -- why didn't you save the
22 short-term data?

23 A. Because it -- I was looking at the overall,
24 the daily exposure.

25 Q. I understand that. But before you looked at

Page 87

1 the overall daily exposure, you looked at a short-term
2 exposure. And my question is --

3 A. No. No. I did the daily first, and then I
4 went back and did the other.

5 Q. Why? Why did you do the other?

6 A. Curiosity, looking at the numbers.

7 Q. And the numbers are not reported in your -
8 your conclusions in either the 2002 or the 2003 report,
9 correct?

10 A. That's correct. Because I didn't do modeling
11 in the 2002 report. That was actual air sampling data.
12 And that does include short-term exposure limits.

13 Q. So, what is your testimony as to why you ran
14 the short-term modeling data and then you no longer have
15 it?

16 A. I didn't need it.

17 Q. Well, did you -- did you ask the lawyers that
18 hired you if it was --

19 A. No. 20 Q. -- okay to get rid of it?

21 A. I didn't get rid of it. I never really had
22 it. I didn't -- I didn't need it. It wasn't relevant,
23 and I didn't use it.

24 Q. Well, did you talk to the lawyers that hired
25 you about the results?

Page 88

1 A. No.

2 Q. Well, how did you know if it wasn't needed or
3 necessary if you didn't talk to them about it?

4 A. Well, because I was the industrial hygienist
5 doing the exposure assessment.

6 Q. Well, were there periods where Mr. Cowey was
7 exposed, or were there days where he was exposed, in
8 your opinion, less than eight-hour time periods?

9 A. Well, I think -- sure. Every day he was
10 exposed less than eight hours. You mean to Liquid
11 Wrench?

12 Q. Right. 13 A. Oh, yeah. I mean, his exposures on a daily
14 basis would have been minutes.

15 Q. So why didn't you perform a calculation of
16 those exposures over minutes?

17 A. Because you compare your results, and -- to
18 the occupational health standards, and they have to be
19 time weighted.

20 Q. Well, they have -- they have a 15-minute
21 interval, don't they?

22 A. They do now, yes.

23 Q. Well, at the time you issued your report, they
24 had a 15-minute standard?

25 A. That's correct. But not at the time -- we're

Page 89

1 talking about Mr. Cowey now. And we're talking about a
2 different period of time.

3 Q. Right. But I'm just saying, if you're trying
4 to assess what his exposures were --

5 A. Right. 6 Q. -- over a 15-minute period, you'd look to
7 15-minute calculations, would you not?

8 A. Well, that's what I used the actual air
9 sampling data for, from our 2002 report.

10 Q. But you just didn't think it was appropriate
11 to report what the modeling told you?

12 A. Well, I -- right. It wasn't necessary. I
13 didn't need it. I had actual data, 15-minute samples
14 from actual air sampling, and I was -- I was looking at
15 the long-term exposure, the daily exposure, during the
16 modeling just to -- just to corroborate the actual air
17 sampling that we did.

18 Q. Well, what assumption did you make on the rate
19 that the benzene evaporated in the Liquid Wrench?

20 A. Well, the generation rate was 0.86 milligrams
21 per minute for the one percent solution.

22 Q. So, are you saying that that's the rate at
23 which the benzene volatilized or evaporated?

24 A. Yes.

25 Q. And that's a real rate?

1 A. It's a calculated rate. It's theoretical
2 because it assumes all of it is being volatilized. And
3 we know that's not the case.

4 Q. But don't you know that the large majority of
5 the benzene in a mixture such as Liquid Wrench
6 evaporates pretty quickly

7 A. It depends on how -- what it's being applied
8 to. If it's being applied to -- or falling down on any
9 organic surfaces that it partitions out, then, no, it
10 does not.

11 Q. Well, how does the evaporation rate of the
12 benzene change if the worker is spraying it on a rusty
13 bolt?

14 A. I'm sorry, was there a question there?

15 Q. How does the evaporation rate of the benzene
16 change if you're spraying it on a rusty bolt?

17 A. Yeah, I don't know that the evaporation rate
18 does change. Again, that -- the spray is an aerosolized
19 form of the liquid, that -- you know design intent is to
20 adhere to the bolt to help loosen -- ultimately loosen
21 that bolt. I mean, that's the function of it. And some
22 of it does evaporate, just not all of it as we've
23 presented it, that the modeling presents. And that's
24 why modeling generally overstates exposure.

25 Q. Well, how fast did the -- does raffinate

Page 91

1 evaporate?

2 A. I don't know what the -- certainly -- I don't
3 know what the evaporation rate is, the generation rate
4 offhand. I'd have to look that up.

5 Q. Is that taken into account in your modeling?

6 A. Sure.

7 Q. Well, how, if you don't know what it is?

8 A. Actually, we're not really -- no, we're not
9 really looking at the raffinate. We're looking at --
10 we're simply looking at benzene.

11 Q. But doesn't the evaporation of the benzene, in
12 a mixture, to some extent depend on the other components
13 in the mixture?

14 A. Oh, sure, it does. But in the model, we're --
15 it's a worst case scenario. We're assuming it's
16 basically just benzene, and all of it is evaporating,
17 regardless of the solvent system. Yeah, if you have a
18 different solvent, it may hold some of that benzene in
19 place. You know, benzene wants to be in solution. So,
20 when we do the modeling, it overstates how much is
21 actually being released into the air.

22 Q. Can you tell us how quickly or at what rate
23 the benzene evaporates in the regular Liquid Wrench that
24 was manufactured by Radiator Specialty Company prior to
25 1978?

Page 92

1 A. I can only tell you that it's less than the
2 generation rate that we calculated in the model, of
3 0.867 milligrams per cubic -- milligrams per minute. So
4 it would be something less than that. I can't give you
5 anymore specific than that.

6 Q. At the bottom of page 4, you say, "If the NF
7 was radius R equals 3.0 feet," and then you've got some
8 calculations, what are you referring to there?

9 A. That's the air field, the area surrounding the
10 individual at issue in the model. I think we adjusted
11 that from two-and-a-half feet to three feet, just
12 looking at the -- looking at the variations that varying
13 distances have on the overall exposure calculation.

14 Q. All right. Now, let's -- let's go to page 5.

15 You have a table of variables.

16 A. Yes. 17 Q. Does page 5 just reflect your calculations
18 based upon different air flows?

19 A. Yes.

20 THE WITNESS: Mr. Lubel?

21 MR. LUBEL: Yes, sir.

22 THE WITNESS: Apparently, when you get
23 away from the phone and it starts to break up a little
24 bit when you step away.

25 MR. LUBEL: Sorry about that. Is this

Page 93

1 better?

2 THE WITNESS: Yeah, much better. Thanks.

3 Q. (BY MR. LUBEL) Well, my last question was:

4 Does page 5, that's listed as table of variables, does
5 it just reflect calculations based upon different air
6 flows?

7 A. That's correct.

8 Q. 50 feet per minute and 100 feet per minute?

9 A. Yes.

10 Q. All right. And then page 6, what is page 6?

11 A. This was basically the -- from our actual
12 study from 2002, where it says, EPI study. And it
13 just -- it summarizes the data from our study based on
14 the daily use as reported by Mr. Cowey, and -- and the
15 changes in the -- in the values of the eight-hour
16 time-weighted averages.

17 Q. All right. Now, at the top, there's a
18 sentence that starts, "If air flow equals," what does
19 that say?

20 A. Yeah, that's 12 -- 12 and a half feet per
21 minute. I -- honestly, I don't recall. I think I
22 started playing around here, looking at different
23 numbers, and I didn't complete that thought.

24 Q. Well, the calculations that are reflected on
25 page 6, do they assume 12.5 feet per minute?

Page 94

1 A. No. Now, you can see the ventilation rates,
2 but under the EPI study, we have no air movement.

3 Q. Okay.

4 A. No ventilation. Under the Near Field-Far
5 Field model, we use 50, 100, and 200 feet per minute.

6 Q. All right. Now, let's go to the next page,
7 which doesn't have a number on it. We'll call it page
8 7.

9 A. Yes.

10 Q. What does this reflect?

11 A. This is just an example of output from the
12 spreadsheet, showing the algorithms from the Near
13 Field-Far Field model.

14 Q. Well, you've got one line on the chart that
15 goes up, that -- that has an NF/FF six gallons, 50 feet
16 per minute, do you see that line?

17 A. Yes. 18 Q. Is this the one that juts out higher than the
19 rest of them?

20 A. Yeah. Wait a minute. Maybe -- I'm sorry,
21 where are you?

22 Q. There's one line that comes up higher than any
23 of the other reference points. If you look at one of
24 the axis, the top point would be about 2.2.

25 A. I'm sorry, I don't see where you are on this

Page 95

1 page. You're talking about the un-numbered page, right?

2 Q. Correct. It's got a chart on it. It's a
3 graph.

4 A. Oh, yeah, yeah, yeah. Okay.

5 Q. Do you see that, the line that goes up high?

6 A. Yes.

7 Q. What does that represent?

8 A. Well, that's the concentration, the airborne
9 concentration over time. So in the -- in the first
10 minute, you know, it goes up to 0.8 milligrams per cubic
11 meter, benzene

12 Q. Okay. But on the left, it's -- you've got
13 eight-hour time-weighted averages, correct?

14 A. These are the two columns going down the left
15 side, or three columns, going down the left side?
16 There's the concentration in the near field, and there
17 is the concentration in the far field.

18 Q. I don't think we're looking at the same page.

19 A. Okay.

20 Q. I'm not looking at the computer-generated
21 page. I'm looking at a handwritten graph.

22 A. Oh. I'm sorry. Okay. Now I'm with you.

23 Q. What does this represent?

24 A. This was just -- we were trying to see whether
25 the change in ventilation was a linear effect, in terms

Page 96

1 of increasing or reducing concentrations.

2 Q. Concentrations of what?

3 A. Of benzene in the air.

4 Q. And you would expect there to be more benzene
5 in the air if the percent benzene in the product is
6 higher?

7 A. Sure.

8 Q. Is that what your chart reflects?

9 A. Yes.

10 Q. But is this chart a summary of the data in the
11 previous pages of this document?

12 A. No. This is -- it includes some of it, but it
13 includes more as well.

14 Q. Well, tell -- tell me why you're using it.

15 A. It was more -- this was more experimental.

16 Just -- I was just looking at the data laid out in
17 different fashions.

18 Q. Are you using it for this case?

19 A. No.

20 Q. Can we pass it? Can we move on to the next
21 page?

22 A. Okay.

23 Q. Next page, I'll call page number 8, it's that
24 computer-generated page, it says, "Sample calculation."

25 A. Okay. I'm sorry, when I was talking earlier,

Page 97

1 I thought this was what we were talking about.

2 Q. At the top is a formula?

3 A. That's correct.

4 Q. That's the Near Field-Far Field model,
5 correct?

6 A. Correct.

7 Q. And then there's a bunch of variables,
8 letters.

9 A. Right.

10 Q. And you inputted certain information within
11 each of those variables for the computer to do its
12 business, correct?

13 A. Yes. 14 Q. Now, how do we know what you input into each
15 of those variables?

16 A. Well, that is what's in the -- the preceding
17 pages and notes that we just went through.

18 Q. How many different calculations are
19 represented on --

20 A. I'm sorry, say again.

21 Q. How many different calculations are
22 represented in this page?

23 A. Well, there are at least -- let's see, line 26
24 through 88, that's at least 42 iterations.

25 Q. All right. What benzene content of Liquid

Page 98

1 Wrench are you assuming?

2 A. This was just an example. Let me -- have to
3 try to figure that out here.

4 Q. What -- at the top right-hand corner, it says,
5 "30 percent benzene, air flow 100 feet per minute"?

6 A. You're ahead of me. Very good.

7 Q. Is that what -- is that correct?

8 A. Yes.

9 Q. So is that what we should assume you used?

10 A. Yes.

11 Q. And then what were the conditions of use of
12 the product during the calculation, other than, I know
13 you've provided us with an assumption of air flow, an
14 assumption of benzene content of the Liquid Wrench.

15 What other variables did you fit in? Like was this a
16 confined -- I mean, it wasn't a confined space, but --

17 A. We have a -- the volume that are near field,
18 you know, surrounding the worker is 1.6 cubic meters.
19 Far field was 116 cubic meters.

20 Q. Why is the 116 cubic meters relevant to
21 Mr. Cowey's case?

22 A. It -- what it does, is it -- as the benzene,
23 or the solvent moves out, and evaporates, and disburses
24 it to the environment, we provide a finite universe for
25 it to expand into, and we -- and that's where we

Page 99

1 chose -- we used 116 cubic meters to kind of confine and
2 restrict any release of benzene, in the far field.

3 Q. And what was the -- the closer range? Was it
4 three meters?

5 A. it was 1.6 cubic meters.

6 Q. And would most of Mr. Cowey's exposures have
7 been within that 1.6 cubic meter area?

8 A. Yeah, that's pretty standard for a worker,
9 and -- you know, I think based on how he would have used
10 the product.

11 Q. Now, does this page reflect his exposures in
12 the garage?

13 A. It -- it -- it evaluates his exposure, I mean,
14 wherever he is. It's within the near field. So it's at
15 that sphere immediately around him, wherever he is.

16 Q. Irrespective of the conditions?

17 A. Correct.

18 Q. Well, at 100 feet per minute?

19 A. That's true. And that's a pretty nominal flow
20 rate of air.

21 Q. And how much product is he using, let's say in
22 the first -- in the first hour? In other words, what's
23 his exposure in the first hour, let's say, if he -- for
24 a continuous hour time period, he's using, squirting the
25 Liquid Wrench on rusty bolts, what does it tell us about

Page 100

1 that first hour?

2 A. Well, the first hour -- within that first hour
3 his exposure was -- well, this is in milligrams per
4 cubic meter. Approximate -- it's .79, divide that by
5 about three, and you get parts per million, 0.79 divided
6 by 3.

7 Q. Okay. Where do you see that on this chart?

8 A. You go down to 60, where it says, time in
9 minutes.

10 Q. Right.

11 A. Left-hand column, go down to 60.

12 Q. Okay. It says, 17.5. Is that right? Do you
13 see that 17.5?

14 A. No. It says, 0.79.

15 Q. Right. But before that, in the column, it
16 says, 17.5.

17 A. I don't see what you're looking at.

18 Q. There's three columns, "Time Minutes," and
19 then "C-NF(t)," and then another column "C-FF(t)," do
20 you see those three?

21 A. That's correct.

22 Q. In the first column, "Time Minutes" -

23 A. Uh-huh.

24 Q. -- if you go down to the 60, and you go
25 directly to the right, into the first column, it shows

Page 101

1 me 17.5.

2 A. I -- I apparently have something different
3 here than you do.

4 Q. Yeah. That doesn't surprise me. What -- what
5 does your first --

6 A. You're looking at column 77?

7 Q. Column -- for 77, next to it, says, 60.

8 A. That's right.

9 Q. Does that mean 60 minutes?

10 A. That's right. Now, what do you have next to
11 60?

12 Q. .79393.

13 A. There you go. So we do have the same thing.

14 Q. All right. Now, go back up to 15 minutes,
15 what do you show for that?

16 A. 0.793.

17 Q. I don't see that. I don't have an entry by 15
18 minutes.

19 A. On -- is it column -- line 55?

20 Q. No, I'm looking at -- okay. Column 55, 15,
21 .79393.

22 A. Right.

23 Q. Okay. And what does .79393 represent?

24 A. The number of milligrams per cubic meter of
25 benzene in the near field, basically, you know, from a

1 breathing zone of the individual.

2 Q. All right. Well, how is it going to be the
3 same in the first 15 minutes as it is in the -- in the
4 entire 60-minute period?

5 A. Well, that's what the model shows you, that a
6 steady state is built up pretty quickly, and it reaches
7 that level, and it stays steady state. This is what
8 happens to a solvent in the air. It peaks pretty
9 quickly, you know, based on the overall concentration of
10 benzene, or, you know, whatever the solvent is in
11 solution, and then it remains in a fairly steady state.

12 Q. But you've got it the same for between four
13 minutes and 720 minutes. You have it exactly the same
14 number.

15 A. Yeah. That's what the model tells you.

16 Q. Is that what really happens?

17 A. Sure. If you had a direct reading instrument,
18 that's basically about what it would show.

19 Q. So you're saying the exposure to benzene would
20 be the same between four minutes and 720 minutes?

21 A. It remains constant over that time.

22 Q. Well, how is that? Doesn't it vaporize?

23 Evaporate? Whatever the word is.

24 A. Well, it does, but again, understand, this
25 model, we've created a worst case scenario, and we have

Page 103

1 captured it, and we're not letting it go anywhere.

2 This model does not consider the environmental
3 safe mechanisms associated with benzene or any other
4 solvent. It overstates the exposure.

5 Q. So what you're saying is that this model on
6 the last page of Exhibit Number 8 holds the value
7 constant between four minutes and 720 minutes? Is that
8 true?

9 A. That's what the model shows us.

10 Q. But that's not what really happens in the real
11 world? Correct?

12 A. Correct.

13 Q. And the figure .79393 was a calculation that
14 you made, correct?

15 A. Well, it was a calculation derived from this
16 model.

17 Q. Okay. Well, what inputs did you make in the
18 model to derive that particular calculation?

19 A. I mean, it was all the things that we just
20 talked about. We just went over the various parameters
21 that went into that.

22 Q. Well, I mean, how much product was he using in
23 the first --

24 A. About 3.2 ounces per day.

25 Q. I'm talking about in the first 15 minutes.

1 Let's say he used 3.2 ounces over a 30-minute time
2 period, how does your model take into account that?

3 A. Well, I -- I can -- like I said before, I plug
4 that in and look at the 15-minute model. I don't have
5 that here.

6 Q. I'm just asking you if that is included in
7 Exhibit 8?

8 A. What's included here is the product being used
9 over -- well, this shows 720 minutes, but we basically
10 looked at it for 480 minutes.

11 Q. Right. But you're not talking about -- you're
12 not saying that this model shows Mr. Cowey using Liquid
13 Wrench continuously, 3.2 ounces every hour, for 720
14 minutes, are you?

15 A. No. No. And -- and I guess I just -- what I
16 want to say about this, this model is, as I said, at
17 probably the outset of the deposition, is used to
18 validate the actual air sampling data that we use. It's
19 a -- it's a -- a crude way to evaluate the actual air
20 sampling data.

21 Q. Did it -- did it validate it?

22 A. Yes. And it's within the same orders of
23 magnitude that we found from the actual air monitoring
24 data from our studies.

25 Q. But would you agree that if Mr. Cowey used

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1 roughly three to four ounces of the regular Liquid
2 Wrench, made pre-1978, that had a benzene content of,
3 let's say, roughly seven percent, over 30 minutes, that
4 his exposure levels would be higher than what's
5 reflected in Exhibit Number 8?

6 A. Yeah. For that 15-minute period, if you look
7 at the actual monitoring data, our study of September
8 2002.

9 Q. I'm talking about Exhibit 8 right now. We're
10 going to come back to your monitoring data, I promise
11 you.

12 A. Yeah. Yes, I agree. The numbers would be --
13 certainly would be higher. And I think that they're
14 reflected in the actual monitoring data.

15 Q. All right. Now, the next document I show on
16 here, I'm going to mark as Exhibit Number 9, is titled,
17 "EPI Project Summary Data Sheet." Do you have that?

18 A. Yes.

19 (Exhibit 9 marked.)

20 Q. (BY MR. LUBEL) Who prepared that?

21 A. I did.

22 Q. Did -- did the -- the secret lady type it in
23 for you?

24 A. The -- yes. The young woman in my office
25 typed this in.

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1 Q. Do you dictate to her, or do you handwrite it
2 out?

3 A. Hand -- well, actually, one of this -- I --
4 sometimes I write it out, and I may have just -- even
5 just typed this in myself. I don't remember right now.

6 Q. All right. And then Exhibit Number 10, I'm
7 going to mark, is a document titled, "Critique of Expert
8 Report, Plaintiffs' Expert Vernon Rose."

9 (Exhibit 10 marked.)

10 Q. (BY MR. LUBEL) Do you see that?

11 A. Yes.

12 Q. And who asked you to prepare this?

13 A. I -- I -- our client did. I'm not sure who
14 asked. I mean, just to review the report done by Vernon
15 Rose.

16 Q. And when did you prepare this critique that I
17 have marked as Exhibit Number 10?

18 A. Shortly after I had received the report.

19 Q. And your critique is approximately a little
20 over two pages, correct?

21 A. Yes. 22 Q. I take it that you were thorough in your
23 criticisms of what Vernon Rose had to say, correct?

24 A. Yes. 25 Q. Are there any other criticisms that you have,

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1 of what Vernon Rose had to say, other than what's in
2 this report, or this typewritten document that I have
3 marked as Exhibit Number 10?

4 A. No. Not other than what we have already
5 talked about.

6 Q. All right. We'll come back to that in a
7 minute.

8 Then the next document in your file materials
9 that your lawyers provided me, I'll mark as Exhibit
10 Number 11. It's a publication, apparently by the
11 American Industrial Hygiene Association. It's titled,
12 "A Strategy for Assessing and Managing Occupational
13 Exposures." Do you have that?

14 (Exhibit 11 marked.)

15 A. I don't have it here with me, but it's a book
16 that I have in my office.

17 Q. (BY MR. LUBEL) What are you using that book
18 for in this case?

19 A. It -- it describes the use of modeling, in
20 conjunction with actual air monitoring data, for
21 purposes of conducting exposure assessments.

22 Q. Okay. We'll come back to that. And then
23 Exhibit Number 12 is an article, "The Occupation"
24 something. I can't read it all because it's a bad
25 print. But it's by DiNardi.

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1 A. Yeah, that's "The Occupational Environment,
2 Its Evaluation and Control."

3 Q. What are you using this document for?

4 A. The same as I described the previous book.

5 Q. Both of those are to support the modeling?

6 A. The modeling, yes, and just the exposure
7 assessment process.

8 (Exhibit 12 marked.)

9 Q. (BY MR. LUBEL) All right. The next one we'll
10 mark, which is

13 is an article titled, "An Impractical
11 Emphasis." Are you familiar with that?

12 A. By Mark Nicas?

13 Q. Yes.

14 A. Yes.

15 (Exhibit 13 marked.)

16 Q. (BY MR. LUBEL) What are you using that for?

17 A. It's just a discussion of the use of modeling
18 in exposure assessment, and to validate its use and how
19 it's used.

20 Q. Okay. And then you also said that you looked
21 at the Dr. Samimi report?

22 A. Yes. I have looked at that generally, but
23 haven't had time to look at it in detail at this point.

24 Q. Okay. Well, tell me what criticisms you have
25 of it at this point.

1 A. From what I can tell from his report, he is
2 using more material when he does his calculation than
3 Mr. Cowey testified to. He also has him, that is,
4 Mr. Cowey, standing two-and-a-half feet away for
5 extended periods of time without moving, but staying
6 exactly two-and-a-half feet away from the -- the applied
7 material.

8 Q. How far away did you have him in your model?

9 A. Well, we had him probably a similar distance,
10 but -- I -- this -- this particular model that is
11 referenced here is one of these very crude sorts of
12 models, and he is making an assumption that Mr. Cowey
13 never moves from that spot, and that is in direct
14 contrast to Mr. Cowey's testimony in how he used the
15 product.

16 Q. Well, did you make the same or different
17 assumption in your modeling?

18 A. Well, certainly when I talked to -- when I
19 talk about -- when I use the modeling, I'm not trying to
20 say that that's Mr. Cowey's exposure. My -- my point
21 is, that he is exposed to a number much less than that.

22 Dr. Samimi is trying to lead the reader to believe that
23 that's Mr. Cowey's exposure level, and that's incorrect.

24 Q. What were -- 25 A. Well, there --

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1 Q. What -

2 A. I really have not had the opportunity, since I
3 received this very late, to spend a lot of time properly
4 evaluating this. So I -- I -- there are some other
5 questions that I have, that I am still trying to work
6 through --

7 Q. Like -

8 A. -- in reviewing this report.

9 Q. Like what?

10 A. There is a particular F factor that he has in
11 here that increases everything by 14.1. I'm not sure
12 what that F factor is. I can't figure it out. I have
13 not seen that before. So, I -- I may be missing
14 something or done something wrong.

15 Q. Okay. What page do you see that F factor on?

16 Oh, the constant unit conversion factor?

17 A. Yes. 18 Q. The 14.1 for, looks like, L being probably
19 liters per hour?

20 A. Yes. I can't figure out what he's done.

21 Q. Okay. What would be your question to

22 Dr. Samimi if I were to ask him for you?

23 A. What's -- what is that factor, how is it used,
24 and what's the basis?

25 Q. All right.

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1 A. I also want to know what's the source of this
2 particular model.

3 Q. What do you mean the source?

4 A. Did he make this up himself?

5 Q. It looks like, if you go to the back, do you
6 see page 8?

7 A. Yes.

8 Q. He references number 3, ACGIH, is that the
9 American Conference of Governmental Industrial
10 Hygienists?

11 A. Right.

12 Q. "Industrial Ventilation, a Manual of
13 Recommended Practice." Are you a member of the ACGIH?

14 A. Yes.

15 Q. Is that a reputable group?

16 A. Oh, sure, it is.

17 Q. Okay.

18 A. And that's one of the things, I have not had a
19 chance to go back and review what he's done here.
20 Again, there are many parameters, many assumptions that
21 he's made here. You know, the obvious ones to me is
22 that he's used a -- more material than is described by
23 Mr. Cowey. He doesn't account for the fact that Mr.
24 Cowey used fans, and in many cases, he doesn't account
25 for the fact that Mr. Cowey would not stay in proximity

1 to the product, you know, after application. He
2 wouldn't stand there for an hour or two and -- and
3 continue to inhale whatever was in the air at that
4 point.

5 So, he is -- he is not taking practical
6 considerations in -- in using a model, and -- and that's
7 the -- that's the -- that's the advantage of only using
8 a model in trying to evaluate an exposure. It -- it
9 leads one astray, and it -- and it provides a -- an
10 inappropriate analysis on its own.

11 Q. Do you have any other criticisms, as you sit
12 here right now, of that report?

13 A. Not right now, but I do need more time to go
14 through it.

15 Q. Okay. 16 A. He also improperly states in his conclusions
17 that the exposure, the PEL, was 1.0 parts per million.
18 That's not correct at the time that Mr. Cowey was using
19 this product.

20 Q. Well, doesn't your report say that the PEL is
21 one point -- part per million?

22 A. I was quoting current day PELs. That wasn't
23 written for Mr. Cowey. Again, you need to put that into
24 perspective of the time.

25 Q. Well, I mean, why did you quote one part per

Page 113

1 million?

2 A. We were simply comparing it to today's
3 occupational health standards.

4 Q. Okay. So what's wrong with him doing that?

5 If you can do it, why can't he?

6 A. He's written his report on behalf of
7 Mr. Cowey.

8 Q. Your report was on behalf of United States

9 Steel Corporation and Radiator Specialty Company. Who
10 cares who --

11 A. Sure. But not for Mr. Cowey, in the 1960s and
12 '70 s.

13 Q. All right. Now, let's talk about the sampling
14 that you did back in August of 2002. Who assisted you
15 in that work?

16 A. Leonard Burrelli.

17 Q. Is he still employed by you?

18 A. Yes.

19 Q. And what is his background?

20 A. He's an industrial hygienist.

21 Q. What did he do in particular on that test?

22 A. Well, he was -- worked with me on setting it
23 up, and he was actually the person that was applying the
24 solution to the bolts.

25 Q. Now, you've got a videotape of some of that,

Page 114

1 don't you?

2 A. Yes.

3 Q. How come there's no sound on the videotape?

4 A. I -- I just don't record sound.

5 Q. Well, it looks like you-all are talking a lot.

6 A. We weren't talking about you.

7 Q. What were you talking about?

8 A. Who knows, standing there putting solvents on

9 a bolt. I mean, you know, any number of things

10 including golf, and baseball.

11 Q. Over what period of time did the test take

12 place?

13 A. It was over -- generally over a two-hour

14 period.

15 Q. No. I mean how many days?

16 A. Oh, over -- it was over da, da, da, one day.

17 Q. And what day of the year did the test take

18 place?

19 A. What day of the year?

20 Q. Right. When did you do the test?

21 A. Yeah, I don't know that I -- I don't know what

22 day of the year it was.

23 Q. Was it in August of 2002?

24 A. I believe so. It was August or early

25 September.

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1 Q. In what city were the tests conducted?

2 A. Baltimore.

3 Q. And what was the temperature?

4 A. I have that in other notes. I do not have it
5 here written in this report.

6 Q. Is that not in the September 2002 report?

7 A. No. The temperature is not reported here.

8 Q. Can the temperature affect the exposures?

9 A. It can, yes.

10 Q. How is that?

11 A. Well, if you have increased temperature, you
12 may have increased volatilization of material.

13 Q. Now, where exactly did the test take place?

14 A. In a warehouse in Baltimore.

15 Q. Whose warehouse?

16 A. It was owned by a contracting company.

17 Q. Who?

18 A. I don't remember the name of the contracting
19 company.

20 Q. All right. Well, what was the address where
21 the test took place?

22 A. I don't know. I don't -- I just don't recall
23 the specific address.

24 Q. How did you make arrangements to get the
25 warehouse?

Page 116

1 A. One of the folks in the office knew someone
2 that had worked there.

3 Q. Who in the office was privy to that?

4 A. Leonard Burrelli.

5 Q. Was anybody else present during the testing
6 other than you and Mr. Burrelli?

7 A. I don't -- do not believe so.

8 Q. Who set up the equipment?

9 A. I did, and Mr. Burrelli did.

10 Q. Now, was the warehouse modified at all to run
11 the test?

12 A. Yes. We -- we had put up barriers to decrease
13 the size of the space to a smaller portion of the
14 warehouse.

15 Q. And what was the size of the space? The
16 dimensions?

17 A. Let's see, if I -- I don't believe it's in the
18 report. It's probably in the field notes.

19 Q. Okay. Do you still have the field notes?

20 A. Yes.

21 Q. How many pages of field notes?

22 A. I -- I'm not certain. I mean, there is
23 probably several pages, I would suspect.

24 Q. What were the approximate dimensions of the
25 room?

Page 117

1 A. Approximately 10 feet by 15 feet.

2 Q. 10 by 15?

3 A. Yeah. By 10 feet high.

4 Q. So, what would that -- the cubic square feet
5 of that area be? Do you know?

6 A. 10 by 15, 150 by, say, another 10, that's 1500
7 cubic feet. 150 square feet.

8 Q. And you said you installed barriers?

9 A. Yes.

10 Q. What were the barriers made out of?

11 A. Plastic.

12 Q. And what held the plastic up?

13 A. We had 2 by 4 structures -- or, I'm sorry, not
14 2 by 4. Metal scaffolding.

15 Q. I understand that, but how did you hold the
16 plastic in place?

17 A. It was taped and glued in place.

18 Q. And I take it that you put up four walls, if
19 you will, made of plastic?

20 A. Well, it was basically just one wall. The --
21 the sides, we used the sides of the warehouse itself,
22 and then one wall, and then the other area was simply
23 open. The other wall, or the other dimension was simply
24 open to the warehouse.

25 Q. What do you mean open?

Page 118

1 A. There was no barrier there.

2 Q. So, there was three walls?

3 A. Correct.

4 Q. What about a roof?

5 A. There was no roof that -- the barriers -- the
6 plastic went up to about 10 feet, on the one side.

7 Q. All right. So you had -- you had --

8 basically, if I'm -- correct me if I'm wrong, but you
9 went to the corner of the warehouse, correct? And at
10 the corner you had two side walls?

11 A. Yeah. Here's the actual dimensions

12 Q. Okay.

13 A. -- in the report. Table was placed in the
14 warehouse alongside polyethylene wall 18 feet long by 10
15 feet high, approximately 12 feet from the rear wall of
16 the warehouse and 10 feet from the outer warehouse
17 doors, which were closed. So, it's described in the --
18 in the report.

19 Q. So, were there -- was there three walls, no
20 roof, and not a fourth wall?

21 A. Correct.

22 Q. So it was not a box?

23 A. Correct.

24 Q. So there was -- just to -- I hate to be
25 redundant, because I'm slow, but there was no roof in

Page 119

1 the testing area; is that correct?

2 A. Well, it was a warehouse roof, which was up
3 higher.

4 Q. All right. But -

5 A. We did not have a roof at the 10-foot level
6 where the plastic wall was located.

7 Q. All right. Now, there was another opening,
8 correct?

9 A. Yes.

10 Q. Where was the other opening?

11 A. Well, it would be -- would have been where
12 the -- the fourth wall would have been.

13 Q. Okay. So, where the fourth wall would have
14 been that did not exist opened up into the rest of the
15 warehouse?

16 A. That's correct.

17 Q. Now, how did you-all enter the warehouse?

18 A. Through a door at the other end of the
19 warehouse.

20 Q. Was it one of those sliding doors, or was it a
21 regular door that you --

22 A. No, it was a regular personnel entry door.

23 Q. Now, did you take any pictures of the
24 warehouse itself?

25 A. Yeah, we have pictures. Yes, we have pictures

Page 120

1 of the setup in the warehouse.

2 Q. Well -- but do you have pictures of the
3 outside of the warehouse?

4 A. No.

5 Q. Do you have pictures of the inside of the
6 warehouse?

7 A. Where we were set up, yes.

8 Q. But not the remainder of the area?

9 A. Right.

10 Q. Do you have the pictures that show the roof -

11 A. Yes.

12 Q. -- of the warehouse?

13 A. Yes.

14 MR. LUBEL: Carl, I don't have those. Do

15 you have them?

16 MR. EPPS: I got a disk today. I think

17 the pictures are on the disk, of which we should have.

18 I have not opened the disk on the -- do you have your
19 disk with you?

20 MR. LUBEL: They didn't give me a disk.

21 I've got some photographs, but none of them show the
22 roof. They don't --

23 THE WITNESS: Well, I don't know if it

24 shows the roof. It shows the work area, and you can see

25 above it. You can see where it's open above the 10-foot

Page 121

1 plastic wall.

2 MR. EPPS: I don't have those pictures in
3 my lap. I can go get them, I think, and make sure it's
4 what I think it is. I think it's just photographs of
5 the setup in the warehouse, but I haven't seen the
6 photographs.

7 Q. (BY MR. LUBEL) Mr. Spencer, did you test or
8 sample the Liquid Wrench that was in existence before
9 1978 that Mr. Cowey would have used?

10 A. You're saying did I sample the product that he
11 used?

12 Q. Well, I mean, I understand you wouldn't have,
13 you know, his particular product, but I'm saying, did
14 you test any Liquid Wrench that contained benzene, that
15 was manufactured before 1978?

16 A. No.

17 Q. Okay. Where did you get the products that you
18 tested?

19 A. We bought existing product material, and added
20 benzene to it.

21 Q. Now, what -- what were the components of the
22 existing product material that you added the benzene to?

23 A. There were several. I don't have that data
24 sheet here with me, but soy oil -- shoot, I don't
25 remember the other constituents right now.

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1 Q. Did you make any effort to try and obtain the
2 Liquid wrench that was made pre-1978?

3 A. Yes. I asked about that. Yes.

4 Q. Who did you ask? ''

5 A. Yes.

6 Q. Who did you ask?

7 A. Oh. Mr. Epps.

8 Q. And what did he tell you?

9 A. Did not have a product available, or certainly
10 sufficient product for testing.

11 Q. Well, which one was it? He didn't have it
12 available, or didn't have sufficient product available?

13 A. Yeah, didn't have product available.

14 Q. Did you ask your other client at Radiator
15 Specialty Company if they had any product?

16 A. No. I -- I -- I believe that they had
17 communicated, so I only asked Mr. Epps.

18 Q. Now, who went and actually purchased the
19 products?

20 A. I believe that I did.

21 Q. And where did you purchase them from?

22 A. From one of the local hardware stores.

23 Q. Was it Home Depot?

24 A. You know, I don't recall. I had a little
25 hardware store right up the block from me. I may have

1 gotten it there. It may have been Home Depot. I don't
2 recall exactly. It may have been Home Depot.

3 Q. And I take it that if the -- if your work was
4 done in approximately August of 2002, that you would
5 have purchased it during that time period?

6 A. Yes.

7 Q. So, it was current stuff?

8 A. Yes.

9 Q. Now, who added the benzene to it?

10 A. I did.

11 Q. Now, tell me how you went about doing that.

12 A. Simply took a pipette out, a -- an aliquot of
13 pure benzene to -- sufficient to get a 1, 7 and 30
14 percent solution, three different containers.

15 Q. Where did you purchase the pure benzene?

16 A. It was at, I think, from Fisher Scientific.

17 Q. And do you have documents that reflect those
18 purchases?

19 A. I have the bottle with the label on it.

20 Q. Okay. So you have the actual benzene still?

21 A. Yes.

22 Q. And when did you add the benzene in
23 relationship to when the test took place?

24 A. It would have been a few days before.

25 Q. Now, did you capture any of that on videotape?

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1 A. I do not believe so. No.

2 Q. Why not?

3 A. I didn't feel the need to.

4 Q. Why did you feel the need to capture some of
5 the other stuff on videotape?

6 A. Because of litigation.

7 Q. What do you mean because of litigation?

8 A. Well, the -- we -- we get accused of trying to
9 cover things up if it's not videotaped.

10 Q. So, why didn't you videotape adding the
11 benzene to the current Liquid Wrench formulas?

12 A. Well, primarily because I sent it to an
13 outside laboratory and had it analyzed, and if you
14 wanted to refute that analysis, you can do that, but I
15 didn't see the sense in videotaping putting benzene in a
16 bottle.

17 Q. Okay. You had what analyzed?

18 A. I had the -- once we made up the three
19 bottles, at varying concentrations, we had each of those
20 analyzed for benzene content.

21 Q. All right. And I take it that you've got a
22 laboratory report that reflects what -- what that shows?

23 A. Correct.

24 Q. Okay. And where is that?

25 A. In my office. And it's also in the -- it's

Page 125

1 also summarized in the report.

2 Q. Yeah, but the summary doesn't provide the
3 actual laboratory analysis, does it?

4 A. It provides the results of that analysis.

5 Q. Result being what? That it had seven percent
6 benzene in it?

7 A. Yeah. I think we had like 6.8 percent, and 1
8 percent, and 28 point something percent.

9 Q. All right. Can you furnish the -- the
10 laboratory report to --

11 A. Sure. As long as it's okay with the client,
12 I'd be happy to do that.

13 MR. LUBEL: Epps, you don't have a
14 problem with me seeing all this underlying stuff, do
15 you?

16 MR. EPPS: Well, Lubel, I hadn't decided.

17 I'll think about it.

18 MR. LUBEL: Okay.

19 Q. (BY MR. LUBEL) Now, what was the name of the
20 laboratory that -- that tested the product to measure
21 the benzene content that was added to the current Liquid
22 Wrench?

23 A. I believe that was American Medical
24 Laboratories.

25 You know what? I'm looking at the report. It

Page 126

1 was -- I did obtain this from Home Depot, in
2 Catonsville, Maryland, yes.

3 Q. All right. So you had the -- who added the
4 benzene to the product itself? You?

5 A. Yes.

6 Q. You did that several days before the August
7 test?

8 A. Yes.

9 Q. And tell us how you went about measuring the
10 benzene to add to it.

11 A. It's kind of a graded -- graduated pipette.

12 Q. Now, did you have to remove any product from
13 the containers in order to fit the benzene in there?

14 A. No.

15 Q. There was enough room?

16 A. Yes. Not that much benzene that goes in
17 there. I take that back. For the 30 percent solution,
18 we may have had to take some out. We certainly
19 accounted for that.

20 Q. Okay. And then you sent those products off to
21 be tested, right?

22 A. Yes. 23 Q. And how did -- how did that take place? Did
24 you drive them over to the laboratory?

25 A. I don't know if they were driven or shipped.

1 Q. At any rate, they made their way to the
2 laboratory, and you said what? What do you want to
3 know?

4 A. I want to know the benzene content.

5 Q. All right. Now, did you mix the product up
6 real good so that the benzene was in the product?

7 A. Yes.

8 Q. Was that necessary for that test to be valid?

9 A. What? To mix it up?

10 Q. Right.

11 A. Well, yeah. I think so.

12 Q. How did you mix it up?

13 A. Shaking.

14 Q. Over what period of time?

15 A. Every time we handled it.

16 Q. But how did you get the benzene to disperse
17 within the container if there was no room left?

18 A. I don't understand your question. It's in the
19 container. It would disperse due to the laws of
20 physics.

21 Q. Okay. Does it -- does it sink? Does the
22 benzene sink?

23 A. No.

24 Q. Does it stay on the top of the mixture?

25 A. No.

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1 Q. What happens to it?

2 A. It disburses in it.

3 Q. How do you know that?

4 A. Based on the physical properties of benzene
5 and the solvents. If you had ever worked with benzene,
6 you would know that, which I have.

7 Q. But did you -- did you measure it to see that
8 it had dispersed?

9 A. Well, sure, we measure it -- we had the
10 laboratory collect samples from the top, middle, and
11 lower portion of the -- of the sample container, and --
12 and blend those into a single sample.

13 Q. And that's reflected in the report, correct?

14 A. Possibly.

15 Q. Well, did you tell them to do that? Is that
16 why you're saying that?

17 A. That's in our report.

18 Q. It's in whose report?

19 A. In our report.

20 Q. Did you see them do it?

21 A. No, I did not -- I did not watch them do it,
22 no.

23 Q. Did anybody with your staff watch them?

24 A. No.

25 Q. But at any rate, you instructed them to do

Page 129

1 that?

2 A. Correct.

3 Q. Now, when you add benzene to a mixture, does
4 the manner in which it spreads out in the mixture depend
5 on the other components in the mixture?

6 A. It could, yes.

7 Q. How is that?

8 A. Well, if you have water in there -

9 Q. Right.

10 A. -- benzene will disassociate from water.

11 Q. What is heavier? Water or benzene?

12 A. Water.

13 Q. So, the benzene wouldn't sink, correct?

14 A. Correct.

15 Q. It would stay on the top? In other words, if
16 you had a can --

17 A. You know what, I -

18 Q. I'm not -

19 A. I don't think that's correct.

20 Q. Well, I'm not trying to trick you. I don't
21 know the answer to this question.

22 A. That's what I'm saying. I don't think that's
23 correct. I'm just thinking of some work that I had done
24 in the laboratory, in using benzene. It is very
25 miscible. And what is --

1 Q. What does that mean? What does "miscible"
2 mean?

3 A. It mixes well.

4 Q. Oh, mixable?

5 A. Miscible.

6 Q. Miscible.

7 A. Not mixable.

8 Q. Okay.

9 A. M I S C.

10 Q. Well, did you appreciate that the manner in
11 which the benzene may or may not disperse in the current
12 Liquid Wrench may depend to some extent on the
13 components of the current Liquid Wrench?

14 A. Yes. 15 Q. And how did you resolve in your own mind that
16 that was not an issue?

17 A. By an understanding of the component parts of
18 the mixture, and the solvent, and the properties of
19 benzene, and by the analysis of the product.

20 Q. What were the component parts of the current
21 Liquid Wrench?

22 A. You asked me that already.

23 Q. Okay.

24 A. And I have -- I have to go back and refer to
25 the MSDS again. I just don't recall the component

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1 parts.

2 Q. But the MSDS sheet, even the 2001 version,
3 doesn't tell you all of the component parts, does it?

4 A. Well, the other -- well, it tells you
5 generally -- yes, it -- I mean, it does. It tells you
6 generally what the components are. I know in the
7 version that we looked at, that it -- that there is more
8 components than were listed on that MSDS.

9 Q. But you would agree that the product that you
10 tested in 2002 was not the product that Mr. Cowey used?

11 A. That's correct. That's why we had to add the
12 benzene.

13 Q. Well, but even with the benzene added, it's
14 not the same product?

15 A. Correct. We created a product that had a
16 greater propensity for releasing benzene.

17 Q. Well, why didn't you just create a product
18 that was similar to what he used?

19 A. We were looking -- because I wasn't even
20 considering Mr. Cowey at that point. We were looking to
21 develop a worst case scenario that would apply to many
22 occupational settings.

23 MR. LUBEL: We need to take a short
24 break. We've got an alarm going off.

25 THE WITNESS: How much more time do you

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1 anticipate? Hello.

2 MR. LUBEL: Yeah, I'm thinking. I'm
3 slow, Carl. Let me tell you what I'm going to do, and
4 then I -- I'm going to take you through the report, not
5 line by line, but probably paragraph by paragraph, and
6 ask you some questions. And then I'm going to take you
7 through parts of what Dr. Samimi's report says, and ask
8 you about them. And then if I'm not just completely
9 worn out by that time, I'm going to take you through
10 some of your criticisms of Dr. Rose.

11 So, my guess right now would be one hour.

12 MR. EPPS: Okay. Let me put on the
13 record, also, if you want some materials, additional
14 materials from Mr. Spencer, you need to document that by
15 letter.

16 MR. LUBEL: I don't need to do shit. The
17 rules provide that you have to produce them. And you'll
18 be talking to Mehaffy, Judge Mehaffy, about that, I
19 promise you.

20 MR. EPPS: Are we on the record?

21 MR. LUBEL: Yeah.

22 MR. EPPS: Okay. Well, you know, my
23 request of you is, that if you want something in
24 addition to what I furnish you, that you write me a
25 letter and tell me what you want.

1 MR. LUBEL: You're going to see it in a
2 motion to exclude.

3 MR. EPPS: Okay.

4 MR. LUBEL: It will be in writing.

5 MR. EPPS: You do what you want to do.

6 That's up to you. I'm not going to tell you what to do.

7 All I'm telling you is what I need from my end if you
8 want additional materials. I don't really care what you
9 do. I'm just telling you what I need.

10 MR. LUBEL: We'll take a couple minute
11 break to check out the alarm and come back.

12 MR. EPPS: I'll stay on the telephone.

13 (A break was taken from 7:23 to 7:37.)

14 Q. (BY MR. LUBEL) Have you run any Liquid Wrench
15 tests other than the one day in August of 2002?

16 A. No.

17 Q. Have you run any tests on any mixtures that
18 contain benzene other than this Liquid Wrench test in
19 August of 2002?

20 A. I -- I have done, yeah, a lot of sampling for
21 benzene in different products.

22 Q. But products that contain less than 50 percent
23 benzene?

24 A. Yes.

25 Q. Such as what?

1 A. Gasoline, paint strippers, other cleaning
2 solvents, degreasers. Those are the ones I can think of
3 off the top of my head.

4 Q. All right. Let's make a list of those. Paint
5 strippers, degreasers, what else?

6 A. Gasoline.

7 Q. Gas. Anything else?

8 A. That's all I can think of right now.

9 Q. Okay. When did you do the test on the paint
10 strippers?

11 A. Probably in the early '90s.

12 Q. Whose product was it?

13 A. It was a client outside of the litigation that
14 made this product.

15 Q. Were you a consultant only?

16 A. Yes.

17 Q. All right. Are you under a confidentiality
18 agreement?

19 A. Yes. Sure. I always feel that way with my
20 clients.

21 Q. I mean, are you not at liberty to talk about
22 who that client is?

23 A. That's correct.

24 Q. So, I take it, you only did it on one occasion
25 for the paint stripper?

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1 A. That's right.

2 Q. Can you tell me generally how much benzene was
3 in the paint stripper?

4 A. Approximately 25 percent.

5 Q. And did you perform sampling?

6 A. Yes.

7 Q. Did you do a model, too?

8 A. No.

9 Q. And in that case, were you -- or in that -- I
10 guess we'll call it a matter. In that matter, were you
11 able to -- to find the actual product that contained the
12 benzene, to test?

13 A. No. We added benzene to it.

14 Q. Okay. What degreasers?

15 A. It was a product called Safety Clean.

16 Q. And how much benzene was in it?

17 A. Well, you know, that -- that varied. I mean,
18 in many cases, it was less than a -- than a percent. It
19 was some evaluations that were done where it was
20 adulterated, and I believe up to two percent benzene was
21 added.

22 Q. Did you issue a report?

23 A. Yes.

24 Q. Okay. Did you do actual sampling on that?

25 A. Yes.

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1 Q. Did you model it?

2 A. No.

3 Q. And how about the gasoline?

4 A. That was actual air sampling. That was just
5 done in a variety of locations, garages, and so forth,
6 service centers.

7 Q. What was the alleged exposure?

8 A. It was -- well, you mean for the gasoline?

9 Q. Right.

10 A. Everything from filling cars with gasoline to
11 mechanics working on engines, carburetors, to -- it was
12 a situation where there was some individuals who were
13 cleaning parts, crazy enough, in gasoline.

14 Q. And what was the percentage content of benzene
15 in the gasoline?

16 A. Generally, it ranged from -- well, less than
17 one percent to up to two percent.

18 Q. And did you sample that?

19 A. Yes.

20 Q. Who was your client in that case?

21 A. Well, U.S. -- one was when I worked with the
22 Coast Guard, a couple of those scenarios when I worked
23 for the U.S. Coast Guard, and others were just -- I
24 don't even remember, service stations, automotive
25 service, dealership service facilities, and then

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1 garages.

2 Q. But, I mean, the Safety Clean degreaser, were
3 you an expert for Safety Clean?

4 A. In -- yes, in one case; and in others, no. I
5 was just -- happened to be monitoring Safety Clean
6 products.

7 Q. On whose behalf?

8 A. The U.S. Coast Guard.

9 Q. Okay. And then what about paint strippers?

10 A. That was for a different company.

11 Q. That wasn't for the Coast Guard, then?

12 A. Correct.

13 Q. For the degreaser, did you -- did you use the
14 same conditions as you used in this case? To sample?

15 A. Did I use the same what?

16 Q. Conditions.

17 A. Well, it was similar, a lot of the studies
18 that were -- they were done in the actual facilities
19 where the work was being conducted, garages, service
20 centers, and so forth. Some industrial facilities as
21 well.

22 Q. Okay. Now, let's -- let's go to your
23 September 27, 2002 report.

24 A. Okay.

25 Q. Can you point me to the data that talks about

1 testing that you did that would show the results over
2 the first 15 minutes?

3 A. Yeah. If you go to the Appendix A of the
4 report, and look at data tables, starting with Table
5 3 -

6 Q. Okay.

7 A. -- we've broken this down into worker and
8 helper. Then there is area samples as well. But focus
9 on the worker. So, see sampling time? There are
10 several there, BC-6 through BC-13, 15 minutes. Those
11 were short-term samples that were collected, the one
12 percent. And there is Table 6, you'll see the same
13 thing. And Table 9, is the same thing.

14 Q. All right. Well, let's talk about Table 6.

15 And let's talk about, for instance, BC-23. That's a
16 15-minute interval?

17 A. Table -- I'm sorry, Table 6?

18 Q. Worker exposure -

19 A. Yes, that's right. Yes.

20 Q. And then you've got BC-23, and then it says,
21 sampling time, 15 minutes.

22 A. Correct. 23 Q. And then you've got an air volume, and then
24 you've got benzene concentration in air. Do you see
25 that?

1 A. Correct.

2 Q. How do you know from looking at this table if
3 the measurement was made right when the worker
4 applied -- or -- you know, applied the product to the
5 joint?

6 A. The -- they were taken in series -- the
7 material is being applied the entire time. So all these
8 samples are representative while the material is being
9 applied.

10 Q. But it looked like from the videotape that you
11 were taking samples after the product was applied, too.

12 A. Well, we were taking samples during -- during
13 the entire process.

14 Q. I understand that. But I'm trying to figure
15 out how do we know that BC-23 was taken -- that
16 measurement was taken during a 15-minute interval when
17 the product is being applied?

18 A. Well, there are field notes that correlate the
19 -- the times and the samples.

20 Q. And will it -- will it tell us the information
21 I'm asking about?

22 A. Yes. 23 Q. But the field notes that you have, have a lot
24 more data than is summarized in the tables, correct?

25 A. It has -- yes, it has -- there is more

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1 information, yes.

2 Q. Now, I noticed on the videotape that the man
3 at your office that was applying the product was wearing
4 some big rubber gloves?

5 A. Yes.

6 Q. Who picked those out?

7 A. I don't recall whether he did or I did.

8 Q. Were they chemical resistant gloves?

9 A. Yes.

10 Q. Why did he wear those?

11 A. Well, the substance that he's working with was
12 very oily.

13 Q. But were you also trying to keep him from
14 being -- having dermal exposures to benzene?

15 A. It was really more of the physical issues of
16 holding on and working with the equipment. I'm sorry,
17 just -- the oily nature of the material.

18 Q. Why would you need gloves for that?

19 A. Just didn't want to get it on his -- on his
20 hands. Didn't want to make a mess.

21 Q. Now, what is your understanding of the -- of
22 the container that Mr. Cowey predominantly used to apply
23 the benzene-containing Liquid Wrench that he used?

24 A. Well, he, I think, describes several different
25 types of containers, you know, at different points in

1 time. You know, what -- putting -- going from a larger
2 container to a smaller container where he would either
3 spray apply it, or using an aerosol product, or using a
4 small can where he can put drops of material on a piece
5 of equipment.

6 Q. Which one of those would result in the
7 greatest exposures?

8 A. I don't know that there would be really any
9 vari -- any significant variation to any of them,
10 because you're -- the intent, the purpose is, to apply
11 the material to the surface, not to spray it into the
12 air, or squirt it into the air.

13 Q. I understand that. But if you're spraying it
14 on the surface, would that result in somewhat larger
15 exposures than applying it by droplets?

16 A. I don't think so, no.

17 Q. Why not?

18 A. Well, in fact, it may even drive the exposures
19 down, because the -- the actual force, the spray of the
20 application, you're moving the material away from you,
21 when you're spraying it. So it may have the effect, the
22 net effect of reducing exposure.

23 Q. What do you mean you're moving it away from
24 you?

25 A. Well, you're not spraying it toward your face,

1 right? You're spraying it away from you at an object.

2 Q. Right. But assuming you hit the object, won't
3 some of that product remain in the air?

4 A. Sure. It's just -- there might be some
5 product in the air just as there is when you apply it in
6 droplet form.

7 Q. Wouldn't you expect less product in the air if
8 you're pointing the can in a droplet form directly on
9 the bolt?

10 A. Well, that's what I'm saying. Yeah, I would
11 expect less in the air, but, again, when you're spraying
12 the material, you may have -- it may have the effect of
13 driving the material away from you. I have seen this
14 effect in other types of products where there was a
15 mechanical means of moving material, and it actually
16 moved material away from the -- from the operator.

17 Q. Well, what type of container do you understand
18 Mr. Cowey to have used most of the time when he was
19 spraying it?

20 A. I don't know that that was entirely clear. I
21 assume there was some sort of spray bottle, as he was
22 filling it himself.

23 Q. Now, are -- is it your testimony that the
24 samples that you took in August of 2002, replicate

25 Mr. Cowey's exposures when he was in those crawl spaces

1 for several hours, using benzene-containing Liquid
2 Wrench?

3 A. No, I don't -- I -- I -- it's not my position
4 that this replicates what Mr. Cowey was doing in a crawl
5 space. I -- again, I think that the -- the studies that
6 we did, that I did in 2002, represent a more worst case
7 scenario.

8 Q. Well, how would that be -- how would your
9 study be worse than being in a crawl space?

10 A. Because we -- when we collected the samples,
11 we -- we were there for two hours collecting the
12 samples. Mr. Cowey, in his testimony, would apply the
13 material, leave, and either come back later that day, or
14 come back the next day. But he was there only for a
15 matter of moments.

16 Q. You're saying that happened -- he testified
17 that he did that each and every time he applied the
18 product, he left it?

19 A. Well, I can't say it's each and every time.

20 Now, you have to understand, based on his testimony, he
21 did this less than once a year. But, for the most part,
22 from what I got from his testimony, most of the time, I
23 believe his testimony was that he would apply this
24 material and leave.

25 Q. What do you mean did --

1 A. He did say there were occasions where, you
2 know, he stayed in there a little longer than he should
3 have. I mean, I think that's how he put it. But
4 that's -- you know, it was a couple of occasions that he
5 describes.

6 Q. What do you mean -- what are you saying he did
7 once a year?

8 A. Based on the number of years and the number of
9 houses he reports to have worked on and used this
10 material, it comes out to less than one house a year.

11 Q. Well, how do you know he didn't do three
12 houses in one year?

13 A. Well, he could have, but I'm looking at it
14 spread out over time. But still -- okay. Three houses
15 a year. I mean --

16 Q. Well --

17 A. It's not consequential given the amounts of
18 materials that he uses, and the method in which he uses
19 this product, and the -- the duration of exposure.

20 Q. Well, does your test tell you what his
21 exposures would be, if he was in a crawl space for
22 several hours, applying --

23 A. Our -- our data tells us what the likely level
24 of exposure would have been to him or anyone else, in a
25 confined area.

1 Q. Let me finish my question. Are you telling us
2 that your data replicates the exposure levels that
3 Mr. Cowey would have had, if he was using a benzene-
4 containing Liquid Wrench, underneath the house, in a
5 crawl space, for several hours continuously?

6 A. No. I'm not saying that. I'm saying the data
7 that we have developed was not for purposes of
8 evaluating Mr. Cowey's exposure. It was for evaluating
9 a worker, in a confined area, in a worst case situation.
10 My opinion is that his level of exposure, in that crawl
11 space, in the house, would -- most likely would have
12 been less than what we reported by our findings in our
13 2002 study.

14 Q. Well, what would his exposure be? Which
15 measurement would you look to, for that scenario I gave
16 you?

17 A. Yeah, there is not a specific measurement.
18 What I'm saying is that it would be less than the
19 numbers we presented in our study.

20 Q. Right. But which numbers? Which -- which
21 numbers would you look to?

22 A. The eight-hour time-weighted average numbers,
23 or the short-term exposure limits.

24 Q. Well, how would you calculate his exposures
25 over two hours in that crawl space?

1 A. Well, again, I'm not calculating his
2 exposures. I'm saying that it's less than the numbers
3 that we reported there. He wasn't in there for two
4 hours spraying this material.

5 Q. I'm just asking you, if he was underneath the
6 crawl space --

7 A. Right. 8 Q. -- applying the material consistently over
9 that two-hour period, and it contained benzene, how
10 would you go about calculating that exposure?

11 A. I'm sorry, you're speaking of a hypothetical?

12 Q. If that's the way you want to refer to it,
13 that's fine.

14 A. Okay. You were saying, if he was under there
15 for two hours, spraying this material?

16 Q. Correct. 17 A. Yeah. I mean, I think the data that we have
18 is -- is relevant. I think that the data that we have,
19 is -- would likely be a higher level of exposure than it
20 would be for Mr. Cowey or somebody being in that -- that
21 crawl space.

22 Q. I'm asking you how you would calculate it.

23 A. Oh, I'm simply applying the data that I have.

24 I don't have to calculate anything.

25 Q. I'm asking you how you would calculate it.

1 I'm not asking you to apply the data you have.

2 A. Well, I -- I mean, you could calculate it and

3 do some modeling like we've done. I mean, if you want

4 to calculate it.

5 Q. Okay. Do you have a particular set of data in

6 your report that you can refer to, that you believe

7 replicates that condition?

8 A. Yeah. I think most all the data that we have

9 in our report would replicate that. When we did our

10 study, there was no ventilation. There was no air

11 movement.

12 Q. How did you measure that?

13 A. With a velometer.

14 Q. And where is that data?

15 A. It's either in our field notes or in the -- in

16 the report here. Let's see. Air velocity measurements

17 were taken before and during the solvent applications.

18 So, it says that they -- it doesn't give the numbers.

19 It may be in our field notes.

20 Q. Where was the velometer placed?

21 A. It's in the field notes.

22 Q. Where was the velometer placed?

23 A. In the general area of the worker, and

24 including the breathing zone of the worker.

25 Q. Can you see it in the videotape?

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1 A. I -- yes. I think there are segments in there
2 you can see where I walk in holding the velometer,
3 taking measurements.

4 Q. What does it look like on the videotape?

5 A. It's a metal stem with a cord attached to it
6 that goes to a little blue box. Yeah.

7 Q. And how did you adjust the flow rate -- the
8 air flow in the room?

9 A. We just closed things off so there wasn't any
10 air flow.

11 Q. Closed what off?

12 A. Well, all the doors, and -- and any sources of
13 air movement.

14 Q. But when you changed the -- the air flow to
15 100 feet per minute, and then to 200 feet per minute -

16 A. No, that was in the model.

17 Q. Okay. You didn't do that in the actual test?

18 A. That's right. And -- I'm sorry, Mr. Lubel, in
19 the report, on page 6, it says, the measured air
20 velocity in the worker's breathing zone measured zero to
21 six feet per minute.

22 Q. You said this was a two-hour test. Is that
23 true?

24 A. Yes.

25 Q. Conducted on one day? Right?

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1 A. Yes.

2 Q. And I believe you applied approximately eight
3 liquid ounces of the product?

4 A. You mean in total?

5 Q. Correct.

6 A. That sounds about right.

7 Q. And that was over the two-hour period?

8 A. Yes.

9 Q. Now, was the product applied evenly over the
10 two-hour period?

11 A. Say that again.

12 Q. Was the amount of the product applied evenly
13 over the two-hour period?

14 A. Yes.

15 Q. How did you do that?

16 A. Well, just by applying it throughout the
17 period. I mean, I can't say that it was absolutely, I
18 mean, linear throughout the entire time; but we would
19 apply some, we would do some work on the bolts; we would
20 apply some more, work on the bolts. Some of them the
21 bolts wouldn't come off, so we'd apply some and set it
22 aside and come back to that. But the application was
23 throughout the entire process.

24 Q. But was there ever a period in your test where
25 you applied, let's say, four ounces, in the -- in the

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1 span of a couple of minutes, and then ran a sample?

2 A. I would not say -- let's see, I need to do a
3 conversion. We measured everything in milliliters here.

4 Hold on just a second. We probably applied close to
5 that for the first -- the one percent solution.

6 Q. Where do you see that?

7 A. It's on page 5, quantity of Liquid Wrench used
8 in the study, 153 milliliters.

9 Q. Is it in the table?

10 A. Yes.

11 Q. Where do you see 153 milliliters? Okay. But
12 that was for one percent benzene?

13 A. Yes.

14 Q. Did you do that for the 7 percent and for the
15 30 percent?

16 A. No.

17 Q. Why not?

18 A. Because the bolts loosened up with less
19 material in the 7 and 30 percent product.

20 Q. So, if Mr. Cowey, on an occasion, applied
21 three to four ounces of the benzene-containing Liquid
22 Wrench, over the span of several minutes, your test
23 wouldn't provide those exposure levels, would it?

24 A. Well, I -- I think -- yes, sure, it would --

25 Q. Where?

1 A. -- for the one percent solution.

2 Q. I'm talking about for the seven percent.

3 A. Okay. Well, no, we didn't use that much
4 there. That's correct. But we did, you know,
5 measure -- yeah, he -- he certainly wouldn't have used
6 all -- he did not use all the material at one time.

7 Q. Well, let me ask you this. If he applied a
8 teacup of benzene-containing Liquid Wrench -- or I think
9 he says a half a teacup, let's say over the course of a
10 minute, and that particular Liquid Wrench had seven
11 percent benzene in it, irrespective of what you think
12 about that, you can't point to any data point in your
13 study that replicates it, correct?

14 A. Well, that -- that -- in this particular
15 study, that's true.

16 Q. Have you

17 A. We can extrapolate from that, but the data in
18 the study did not do that particular thing. We could
19 extrapolate from data in the study and do that.

20 Q. How would you do that?

21 A. By developing a ratio of the amount of
22 material we used versus the amounts of material that you
23 proposed in your hypothetical, and multiply that ratio
24 against the result that we got for the 15-minute sample.

25 Q. Well, let's take the -- the example you've got

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of seven percent benzene product with 32 milliliters.

2 Do you see that?

3 A. Yes.

4 Q. What was the exposure level at that point?

5 A. Well, I don't know. I'd have to run through

6 this calculation. I can't do it right here.

7 Q. No, but this is already in your -- in your

8 study.

9 A. What's the exposure to 32 milliliters?

10 Q. That's what it says in your Table 1, on page

11 5.

12 A. Yeah, I think you then go to Table 6, and the

13 15-minute STELs range from 1.25 to 4.87 parts per

14 million.

15 Q. That's at 32 milliliters?

16 A. Correct.

17 Q. Which would be roughly one-fifth of the

18 -one-fifth of what? Four ounces?

19 A. Yeah. I don't know -- I -- I need to -- well,

20 I don't know -- one-fourth -- somewhere between

21 one-third and one-fifth.

22 Q. Now, why was there a range in the -- the

23 15-minute short-term exposures, between 1.25 and 4.87?

24 A. It may just be -- we could have gotten a -- in

25 a drop of material, it could have been aerosolized

1 material, and it greatly altered what the value was. I
2 mean, there are -- that certainly could explain that.

3 Q. But as you sit here, you don't know?

4 A. Correct. I don't know precisely.

5 Q. Were you able to determine why you had the one
6 STEL over five parts per million?

7 A. Well, it was only -- it was five point -- it
8 was 5.03. I mean, technically, that -- when you round
9 that off, it's not over.

10 Q. Right. But how did -- that was an actual
11 measurement, correct?

12 A. That's correct.

13 Q. How did that take place?

14 A. Just during the application of -- of the seven
15 percent solution.

16 Q. You mean the 6.8 percent?

17 A. That's right. Of course, if you look at the
18 30 percent solution, you know, all those numbers are
19 much less than that. So, one way to look at that is
20 it's just -- it's some sort of artifact that may be -- I
21 don't know the answer, but it may be explained by actual
22 physical droplets of material getting on the sample
23 during collection.

24 Q. Do you explain how that happened in either one
25 of your reports?

1 A. No, I do not get into attempting to explain
2 that. No.

3 Q. Just so we're clear, your study took place
4 over two hours in approximately eight percent -- strike
5 that.

6 Approximately eight ounces of the product that
7 you tested was used during the test?

8 A. Yeah. I didn't convert it to ounces. It's in
9 milliliters. I would have to -- I need to convert that.

10 Q. Well, if you look at the appendix, paragraph
11 number 1, last line, it says, approximately eight liquid
12 ounces, 236 milliliters of each weight percentage
13 solution will be made for use during the study.

14 A. Yes. But I don't believe we used all of it.

15 Q. Well, how much did you use?

16 A. Well, it's what's in the table. Table 1.

17 Q. All right. So Table 1 shows us all of the
18 product that was used, correct?

19 A. Yes. 20 Q. Can you do a quick calculation of what that
21 converts to in ounces?

22 A. No. I'm not sure offhand what milliliters to
23 ounces is. I need to look it up. Don't usually use
24 ounces.

25 Q. But does Table 1 reflect all of the product

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1 that was used during the entire test?

2 A. Yes.

3 Q. For varying amounts of benzene in the product,

4 correct?

5 A. That's correct.

6 Q. So what's -- which column do we look at to

7 calculate in milliliters the amount of product that was

8 used, for like one percent?

9 A. Where it says, "Quantity of Liquid Wrench used

10 in study."

11 Q. Quantity of Liquid Wrench/benzene used in

12 study?

13 A. Yes.

14 Q. If we look at that column, where you have the

15 153.2 milliliters, is that -- am I looking at the right

16 number?

17 A. 153.2, right.

18 Q. That's for one percent benzene?

19 A. Correct.

20 Q. And then you use 32.0 milliliters for seven

21 percent?

22 A. Right.

23 Q. And then 42.5 milliliters for 30 percent?

24 A. Yes.

25 Q. And would the 153.2 milliliters, based upon

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1 your estimation, closely resemble the half a teacup?

2 A. Probably. I -- I don't -- I don't want to say

3 without doing that -- a mathematical analysis. I -- I

4 won't say now.

5 Q. Okay. But do you have a hunch as to

6 whether -- whether the 153 milliliters is closer to the

7 half a teacup than the 32 milliliters?

8 A. Well, yeah, I've got a hunch.

9 Q. What's your hunch?

10 A. That it is.

11 Q. Have you published this study?

12 A. No.

13 Q. Do you plan on it?

14 A. I'd say ultimately, yes.

15 Q. When will that take place?

16 A. Oh, my gosh, I wish I knew.

17 Q. What's your plan?

18 A. I don't have one at this point.

19 Q. Have you submitted this data for any peer

20 review?

21 A. No.

22 Q. Has the data been reviewed by anybody outside

23 your -- your business; in other words, your company?

24 A. Yes. It was presented at a national

25 conference.

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1 Q. Which conference?

2 A. Pan American Industrial Hygiene Conference.

3 Q. And did you prepare a paper for that?

4 A. There was an abstract that was prepared.

5 Q. And can you provide that to Mr. Epps so I can
6 look at it?

7 A. Yes.

8 MR. LUBEL: Will you-all pardon me for
9 just a second?

10 THE WITNESS: Yes. I can.

11 (A break was taken from 8:12 to 8:13.)

12 MR. LUBEL: Okay. Sorry about that.

13 You-all ready?

14 THE WITNESS: Yes.

15 Q. (BY MR. LUBEL) Okay. Let's turn to -- do you
16 have Dr. Samimi's report in front of you?

17 A. Yes. Okay.

18 Q. Do you agree with his comments in the first
19 paragraph, in the introductory paragraph?

20 A. No, I do not.

21 Q. Okay. Which ones do you disagree with?

22 A. "The liquid is squirted abundantly on the
23 rusted jammed pipe joints, bolts, and other like
24 objects, while the maintenance personnel remains in
25 close proximity to loose and separate the parts

1 following the application of the Liquid Wrench." That's
2 not true.

3 Q. You say that's never true, or you're just
4 saying that's not true for Mr. Cowey?

5 A. I'd say generally it's not true. That is not
6 how it's done out in the field.

7 Q. Have you used it out in the field?

8 A. Oh, yes, many times.

9 Q. Starting when?

10 A. Boy, I would suspect from the time I was
11 working construction, in high school.

12 Q. What year would that have been in?

13 A. Early '70s. '70, '71.

14 Q. Can you remember what the label on the
15 container said?

16 A. My goodness, no.

17 Q. Can you ever remember what the label on the
18 Liquid Wrench container said?

19 A. No.

20 Q. Did you know, back in the 1970s, whether or
21 not it had benzene, when you were using it, in the
22 product?

23 A. In the early '70s, it could have. Yes.

24 Q. But, I mean, did you appreciate it back then?

25 A. No.

1 Q. Is that something you made a mental note of,
2 is my question?

3 A. No. 4 Q. Okay. Is there any other disagreements you
5 have with the first paragraph in the introduction?

6 A. Generally, no.

7 Q. All right. How about the second paragraph of
8 the introduction?

9 A. I -- I'm not really sure how to comment on
10 that. I don't think he's got any realistic scenarios
11 here. I don't think he's shedding any light.

12 Q. All right. Now, let's go down to the
13 calculations. Do you see Scenario A?

14 A. I do.

15 Q. Do you have any criticisms of Scenario A?

16 A. Yes. I'm not sure where four ounces is coming
17 from. That was in excess of what was reported by the
18 plaintiff.

19 Q. Okay. But irrespective of whether it applies
20 to the plaintiff or not, do you have any criticisms of
21 the calculation?

22 A. Well, I might. I'm going -- I need some time
23 to work through the calculations, and I can't sit here
24 and criticize it, just sitting here looking at it. I
25 need time to really digest this, and I haven't been

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1 given that time yet.

2 Q. How much time is it going to take?

3 A. I don't know. It might be a couple of hours,
4 few hours for me to go through this, and run through the
5 calculations myself.

6 Q. Is there any particular reason why you hadn't
7 run those calculations since you had the report on
8 approximately November 24th?

9 A. Just have not had the time, and I got this on
10 very short notice.

11 Q. But you've had it for six or eight days,
12 correct?

13 A. Yeah, most of which was my vacation with my
14 family, for Thanksgiving holiday, and beyond, which was
15 planned well in advance, not like this report.

16 Q. Was there anything that prevented you from
17 analyzing this data yesterday?

18 A. Yes.

19 Q. What was that?

20 A. Work with a couple of other clients.

21 Q. On a litigation project?

22 A. No.

23 Q. Okay. How about Scenario B, do you have any
24 criticisms of that scenario?

25 A. Not yet.

1 Q. Do you have a hunch whether you will?

2 A. No, I -- I can't guess. I mean, I -- I
3 really -- I just need some time to go through it.

4 Q. How about under Section 2, Benzene Exposure
5 Scenarios, Exposure Scenario Number 1, and in
6 particular, the assumptions?

7 A. Well, unfortunately, they're all based on
8 the -- the information provided before, so I just can't
9 comment on it at this point.

10 Q. Well, have you told us all the criticisms that
11 you have at this point of the report?

12 A. Yeah. I think we went over Samimi's report
13 earlier, and I kind of gave you what I had at this
14 point. So I just -- I honestly need more time.

15 Q. Between the report that you've issued in this
16 case and the opinions that you've offered today, have we
17 covered in substance your opinions in the case?

18 A. Yes. 19 Q. With the understanding that you may have
20 additional opinions regarding a closer look at
21 Dr. Samimi's calculations?

22 A. Yes. 23 Q. Do you intend on doing any other work in the
24 case other than that?

25 A. There is nothing I can think of at this point.

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1 I guess it depends if we get any other plaintiffs'
2 expert reports.

3 Q. And when do you think you can provide Mr. Epps
4 with the underlying data and materials I've asked you
5 about in the deposition?

6 A. I mean, I -- I can call the office and try to
7 have these things pulled together, within the next
8 couple of days. I'm not back in the office this week.

9 Q. But is this material something that you can
10 point your staff to?

11 A. I believe so, yes.

12 Q. Will it be the secret staff that's pulling it?

13 A. You mean the staff who I'm respecting their
14 right to privacy? Yes.

15 MR. LUBEL: Well, subject to me retaking
16 your deposition once I get the other materials, I'll
17 pass you.

18 THE WITNESS: Okay.

19 MR. EPPS: No questions.

20 MR. RILEY: No questions. Carl, stay on
21 the phone for a minute. I want to stay on the record
22 about another discovery matter, please.

23 MR. EPPS: All right.

24 MR. LUBEL: With me?

25 MR. RILEY: Yeah.

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1 THE WITNESS: Okay. Thank you.

2 MR. LUBEL: Bye, John.

3 THE WITNESS: So long, Lance.

4 MR. RILEY: I want to stay on the record

5 with this because -- and no stones are being cast.

6 Everybody's been cooperative about trying to get

7 Mr. Blumenthal's deposition scheduled. But I need to

8 know a time estimate, because I'm faced with the

9 constraint that he needs to be out of the deposition by

10 11:00 in the morning.

11 MR. LUBEL: I thought it was noon.

12 MR. RILEY: It was noon, and that's what

13 I committed to you, and it turns out that it's 11:00.

14 And I bear the brunt of that. Therefore -- I mean, we

15 initially said 8:30. If we need to move it back, I

16 don't want to be unnecessarily contentious about this,

17 because you-all should have a right to ask him whatever

18 questions you can. I'm just trying to let you know that

19 I'm under these time constraints. It is my C.E.O. of my

20 company. And I'm trying to work with everybody involved
21 here.

22 So, tell me what you think your estimates are

23 so that I can plan accordingly and we don't have to get

24 into anything unnecessary.

25 MR. LUBEL: I don't know, because he's

1 never been deposed, to my knowledge.

2 MR. RILEY: I understand.

3 MR. LUBEL: And I don't have any prior

4 testimony, and I have no clue, other than his affidavit

5 that he gave, for the Court, what he's going to say.

6 MR. EPPS: Jim, I'm going to need some

7 time probably. I need to reserve some time, in any

8 event, for questions I might have, after -- after

9 Lance's questions.

10 MR. RILEY: I know. That's why I have

11 you both here on the line, on the record, because I just

12 don't want to be in a situation where, you know, I'm

13 having to cut it off, and -- and I just don't want that

14 to happen. I want everybody to get whatever questions

15 they have, and if we need to start it earlier, we'll

16 start it earlier.

17 MR. EPPS: All right. Well, you-all just

18 let me know. I'm not sure what time we can get in the

19 building. I think I can get in by 8:00. I may be able

20 to get in earlier. I don't know.

21 MR. LUBEL: Carl, how long is the flight

22 from Houston to Charlotte?

23 MR. EPPS: Depends on what you're flying.

24 MR. LUBEL: Well, just -- let's say it's

25 direct in to Charlotte.

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1 MR. EPPS: What are you flying?

2 MR. LUBEL: A Citation II.

3 MR. EPPS: Flying a jet?

4 MR. LUBEL: Right.

5 MR. EPPS: Couple of hours.

6 MR. LUBEL: Well -

7 MR. EPPS: That gets you to the airport.

8 MR. LUBEL: I can start at 8:00, if

9 you-all want to, so we can try to get it done.

10 MR. RILEY: Well, I'd appreciate that

11 courtesy.

12 MR. LUBEL: But I just can't make any

13 promises.

14 MR. RILEY: Well, I understand. And,

15 again, if I have to stop it at 11:00, I'm not saying

16 that it has to be over. I just want you to know I'm

17 under that constraint.

18 MR. EPPS: Well, I mean, you know, I

19 understand that, Jim, and -- but still, I -- I have to

20 protect my client, and I don't know whether I'll have

21 any questions or not, but I could have, and I will need

22 some time to ask some questions.

23 MR. RILEY: Carl, I'm not trying to cut

24 you off. I'm not trying to cut Lance off. I'm just

25 voicing a problem I've got, and I'm trying to work with

1 you.

2 MR. EPPS: If you-all want to start at
3 8:00, we can do that.

4 MR. LUBEL: Let's just deal with it when
5 we get there.

6 Let me ask you this, Carl. What's your best
7 estimate as to how long you'll take with Wells?

8 MR. EPPS: I'm a terrible judge of time.

9 I really am.

10 MR. LUBEL: I'm not going to hold you to
11 it. I'm just asking you whether you think it's three
12 hours or two hours or six hours.

13 MR. EPPS: I think it's probably more
14 like two hours.

15 MR. RILEY: Well, Wells will be after
16 Blumenthal, and that's not a problem. My only problem
17 is with the C.E.O. so --

18 MR. LUBEL: Okay. Well, let's just let
19 Kathy make sure we've got all the exhibits, and we can
20 wrap it up. I'll see you at Dr. Natelson's tomorrow.

21 MR. RILEY: You won't see me. But
22 tomorrow -- Thursday, we'll start at 8:00 in the
23 morning. Then, for Allen Blumenthal, at the Nelson
24 Mullins offices in Charlotte. Carl, is that all right?

25 MR. EPPS: Yeah. I'll have to make those

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1 arrangements.

2 MR. RILEY: I appreciate the

3 MR. EPPS: The receptionist doesn't get

4 there until 8:30, so I'll have to get into the office

5 somehow, but I think I can manage that.

6 MR. RILEY: Lance, does that work for

7 you?

8 MR. LUBEL: 8:00?

9 MR. RILEY: 8:00. I'm just trying to

10 give you -

11 MR. EPPS: Jim, call me on your cell when

12 you leave.

13 MR. LUBEL: I'm going to try to be there

14 at 8:00.

15 MR. RILEY: Yeah, I'm just trying to give

16 you guys as much time as I can, and I don't want to get

17 into any problems.

18 MR. EPPS: All right. So let's start at

19 8:00, and we'll go from there.

20 MR. LUBEL: That's great. Thank you. 21 MR. EPPS: Thank you.

22

23

24

25