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SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF ORANGE

MARY GABALDON, individually and)
as Personal Representative of)
the Estate of Esequiel Gabaldon;)
STEVEN GABALDON, individually;)
and PAUL GABALDON, individually,)
Plaintiffs,)
vs.) No. 811474
BOEING; ROCKWELL; THE BRUSH)
BERYLLIUM COMPANY (formerly Doe)
Defendant No. 1); and DOES 3)
through 100, inclusive,)
Defendants.)

DEPOSITION OF SHELDON H. RABINOVITZ, Ph.D., C.I.H.
Saturday, October 21, 2000
Long Beach, California

REPORTED BY: Lyn Corrin Aaker, CSR No. 6228

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Deposition of SHELDON H. RABINOVITZ,
Ph.D., C.I.H., an Expert Witness, taken
on behalf of Plaintiffs, at 401 East
Ocean Boulevard, Suite 800, Long Beach,
California 90802, commencing at the hour
of 11:00 a.m., Saturday, October 21, 2000,
before Lyn Corrin Aaker, CSR No. 6228,
pursuant to Notice of Taking Deposition.

APPEARANCES OF COUNSEL:

For Plaintiffs:	LAW OFFICES OF RAPHAEL METZGER
	BY: RAPHAEL METZGER
	Attorney at Law
	401 East Ocean Boulevard
	Suite 800
	Long Beach, California 90802
For Defendant	LAW OFFICES OF PETER J. NOVA
BRUSH WELLMAN	BY: PETER J. NOVA
COMPANY:	Attorney at Law
	456 Patten Street
	Sonoma, California 95476

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I N D E X

WITNESS	EXAMINATION	PAGE
Sheldon H. Rabinovitz, Ph.D., C.I.H.	By Mr. Metzger By Mr. Metzger (cont'd)	6 89

EXHIBITS FOR IDENTIFICATION

Plaintiffs' 1	Copy of curriculum vitae; 9 pages	7
Plaintiffs' 2	Copy of deposition notice; 5 pages	9
Plaintiffs' 3	Copy of handwritten notes; 2 pages	72
Plaintiffs' 4	Copy of handwritten notes; 2 pages	72
Plaintiffs' 5	Copy of 11/99/51 letter; 4 pages	73
Plaintiffs' 6	Copy of "Toxicity of Beryllium"; 2 pages	73
Plaintiffs' 7	Copy of "Simplified Industrial Hygiene Controls for Machining Metallic Beryllium"; 17 pages	73
Plaintiffs' 8	Copy of "At Autonetics: An unrelenting war on hazards"; 2 pages	74
Plaintiffs' 9	Copy of "A Few Facts About Beryllium"; 8 pages	74

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3 EXHIBITS FOR IDENTIFICATION

4	Plaintiffs' 10	Copy of "Report of Survey Committee Concerning Beryllium Disease Problems"; 41 pages	92
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6	Plaintiffs' 11	Copy of 1/25/76 letter; 3 pages	93
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8	Plaintiffs' 12	Copy of 4/21/81 letter and attachments; 21 pages	93
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10	Plaintiffs' 13	Copy of 7/14/81 letter; 5 pages	94
11	Plaintiffs' 14	Copy of "Industrial Hygiene Walk-through Survey"; 24 pages	94
12			
13	Plaintiffs' 15	Copy of "General Process Specification"; 10 pages	95
14			
15	Plaintiffs' 16	Copy of "Health and Safety Aspects of Beryllium"; 21 pages	95
16			
17	Plaintiffs' 17	Copy of "Health & Safety Aspects of Beryllium, Training Session Attendance"; 12 pages	96
18			
19	Plaintiffs' 18	Copy of "Material Safety Data Sheet"; 3 pages	96
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21	Plaintiffs' 19	Copy of 8/7/84 letter; 2 pages	96
22	Plaintiffs' 20	Copy of 8/27/85 letter; 1 page	97
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24	Plaintiffs' 21	Copy of "Health Effects of Beryllium and its Compounds"; 8 pages	97
25			

1 (continued) I N D E X

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3 EXHIBITS FOR IDENTIFICATION

4	Plaintiffs'	22	Copy of 3/12/87 letter; 3 pages	98
5				
6	Plaintiffs'	23	Copy of 3/12/87 letter; 1 page	98
7	Plaintiffs'	24	Copy of "Warning & Caution Labels"; 5 pages	98
8				
9	Plaintiffs'	25	Copy of "Environmental Surveillance" reports; 12 pages	99
10				
11	Plaintiffs'	26	Copy of "Toxicological Profile for Beryllium"; 9 pages	99
12				
13	Plaintiffs'	27	Copy of "Statement of Current Knowledge on Chronic Beryllium Disease"; 4 pages	100
14				
15	Plaintiffs'	28	Copy of "Government Responses to Beryllium Uses and Risks"; 18 pages	100
16				

17 WITNESS INSTRUCTED NOT TO ANSWER

18	Page	Line
19	90	18
20	116	7
21		

22 WITNESS REFUSES TO ANSWER

23	Page	Line
24	90	22
25	116	23

1 SATURDAY, OCTOBER 21, 2000, LONG BEACH, CALIFORNIA

2 11:00 A.M.

3 * * *

4

5 SHELDON H. RABINOVITZ, Ph.D., C.I.H.,

6 the witness herein, having been first duly sworn,

7 was examined and testified as follows:

8

9 EXAMINATION +

10 BY MR. METZGER:

11 Q. Good morning, sir. Would you
12 introduce yourself for the record.

13 A. My name is Sheldon Rabinovitz.

14 Q. And is that spelled with a "v" or a
15 "w"?

16 A. A "v."

17 Q. That's what I thought. You are a
18 Ph.D. Correct?

19 A. Yes.

20 Q. Do you prefer being called Doctor?

21 A. It doesn't matter.

22 Q. Mr. Rabinovitz, we're here for your
23 deposition today. I assume you've given a number of
24 depositions over your career. Is that true?

25 A. Yes.

1 Q. Can you tell me approximately how
2 many?

3 A. I don't know the exact number. It's
4 something over a hundred.

5 Q. All right. I would take it, then,
6 you're comfortable with the process and don't need
7 to be instructed about it.

8 A. I think I know the process, yes.

9 Q. The key thing is, of course, that you
10 are under oath, and you understand that you are
11 obligated to testify truthfully?

12 A. Yes.

13 Q. All right. You have been asked to
14 bring certain documents with you to the deposition
15 today. Do you have a curriculum vitae here?

16 A. Yes. It's not my most current one,
17 but there's nothing substantially different from the
18 current one.

19 MR. METZGER: Well, then, we will have this
20 curriculum vitae marked as Exhibit 1.

21 (A copy of the aforementioned
22 document, consisting of nine pages, was
23 marked by the court reporter as
24 Plaintiffs' Exhibit+ 1 for identification;
25 attached hereto.)

1 BY MR. METZGER:

2 Q. I see a fax transmittal on this one
3 dated 1995. Was this prepared in 1995? Do you
4 know?

5 A. I assume it was.

6 Q. What has been added to your current
7 curriculum vitae which is not on this one?

8 A. I took off the personal data. I
9 figured I'm old enough now. It's not relevant. And
10 I've given a presentation on indoor air quality. It
11 also doesn't mention that I've given now some
12 lectures in toxicology at the University of
13 Maryland, and I'm planning to prepare to teach a
14 course in toxicology at the University of Maryland.
15 I think that's just about the only difference.

16 Q. All right. Let me see. There are
17 some publications listed here. Have you published
18 any articles or any papers or anything which is not
19 listed on this list here?

20 A. No. I don't think there are any
21 publications that aren't listed there.

22 Q. Have you published anything during
23 the last ten years?

24 A. No. I don't think so.

25 Q. Do you have a list of cases in which

1 you've testified?

2 A. No.

3 MR. METZGER: I'll mark this as Exhibit 2.

4 It's the notice of deposition.

5 (A copy of the aforementioned
6 document, consisting of five pages, was
7 marked by the court reporter as
8 Plaintiffs' Exhibit+ 2 for identification;
9 attached hereto.)

10 BY MR. METZGER:

11 Q. Did you receive a copy of this
12 document?

13 A. No.

14 Q. Were you aware you were to bring a
15 list of cases in which you've testified?

16 A. I don't have a prepared list of all
17 the cases. I do have a list of cases that were done
18 in Federal Court, but I understand this is a
19 State Court; so I didn't bring that. Again, I don't
20 have a list of all my cases.

21 Q. Do you have access to that that
22 someone could fax it over here now?

23 A. Unfortunately not today.

24 Q. Unfortunately your deposition is
25 today. Could you have that faxed over Monday

1 morning?

2 A. Sure.

3 Q. Fine.

4 Mr. Nova, would you see that that
5 happens?

6 MR. NOVA: Yes.

7 MR. METZGER: Thank you.

8 Q. By whom are you currently employed?

9 A. Sandler Occupational Medicine
10 Associates.

11 Q. And how long have you been employed
12 by Sandler?

13 A. On a full-time basis since 1989.

14 Q. And what is your position?

15 A. I am in charge of industrial hygiene
16 and toxicology.

17 Q. Okay. Is Sandler Occupational
18 Medicine Associates a corporation?

19 A. Yes.

20 Q. And are you a corporate officer?

21 A. I have a title of vice president.
22 Would that make me a corporate officer?

23 Q. I think so.

24 A. Okay.

25 Q. And do you have a stock ownership

1 interest in this company?

2 A. I do own some stock in it.

3 Q. How large is the company?

4 A. I think we have about 15 people.

5 Q. Whom do you report to?

6 A. Dr. Sandler.

7 Q. And what is his position?

8 A. He is the president.

9 Q. Are there any other vice presidents?

10 A. Yes.

11 Q. Who?

12 A. Richard Blume.

13 Q. And who is he?

14 A. He is an occupational physician.

15 Q. What is your ownership interest in

16 the company?

17 A. I think it's 13 percent.

18 Q. When you serve as a consultant or

19 expert in litigation matters, is all of the money

20 that you receive paid to Sandler Occupational

21 Medicine Associates?

22 A. Yes, it is.

23 Q. What do you charge for deposition and

24 trial testimony?

25 A. It's \$300 an hour with no minimum.

1 Q. During this year of 2000, since we're
2 now coming up towards the end of October,
3 approximately how many depositions have you given
4 this year?

5 A. Ten.

6 Q. Do you typically give about one a
7 month?

8 A. Lately I tend to have been giving
9 more. This year I've probably given more than I've
10 given -- ever given in the past.

11 Q. Okay. With respect to the ten
12 depositions that you gave this year, in any of those
13 depositions were you testifying as an expert on
14 behalf of a worker claiming to be injured?

15 A. No.

16 Q. In every one of those cases were you
17 testifying on behalf of a defendant in the lawsuit?

18 A. This year, yes.

19 Q. Then let's go back a year to 1999.
20 Approximately how many depositions did you give that
21 year?

22 A. I don't remember the exact number.

23 MR. NOVA: Well, then, don't guess. If you
24 can give a reasonable approximation, then do that.

25 THE WITNESS: It's reasonable. I would say

1 around five.

2 BY MR. METZGER:

3 Q. And for those five cases in 1999, for
4 any of those cases were you testifying as an expert
5 on behalf of a worker who claimed to be injured?

6 A. No.

7 Q. With respect to every one of those
8 five cases, were you testifying on behalf of the
9 defendant?

10 A. Yes.

11 Q. Since 1995, have you testified on
12 behalf of a worker claiming to be injured in any
13 case?

14 A. Yes.

15 Q. What cases?

16 A. I can remember one case where a
17 worker claimed he was exposed to levels of chlorine
18 gas that caused permanent health effects.

19 Q. And what were those health effects?

20 A. He needed a lung transplant.

21 Q. What were the actual health effects?

22 A. His lung was damaged to the point
23 where it wasn't functioning as it needs to for him
24 to continue to lead a normal life.

25 Q. You are a toxicologist. Correct?

1 A. Yes.

2 Q. Can you tell me what the toxic effect
3 was in that case?

4 A. Well, it was chlorine would
5 physically damage lung structures. It would destroy
6 the alveoli, linings, and associated structures.

7 Q. And, therefore, was that a fibrotic
8 lung disease?

9 A. No. It was not a fibrotic lung,
10 although from some of the scarring that might have
11 been caused as it might have healed, there might
12 have been some fibrosis for him. But it went
13 beyond. It damaged the alveoli.

14 Q. The airways were also damaged?

15 A. Yes.

16 Q. And what was nature of your testimony
17 in that case?

18 A. That the place where he was working
19 that day was negligent in allowing him to be exposed
20 to the chlorine gas and then after the exposure not
21 providing medical assistance.

22 Q. Was this an acute exposure case?

23 A. Yes.

24 Q. All right. Have you ever testified
25 on behalf of an injured worker or a worker who

1 claimed to be injured as a result of chronic
2 exposure to a toxin?

3 A. I can't remember any.

4 Q. Have you testified on behalf of
5 defendants in cases where it was claimed that the
6 worker had chronically been exposed to a toxin and
7 claimed injury?

8 A. Yes.

9 Q. Approximately how many such cases?

10 A. I don't know the number. It's more
11 than ten.

12 Q. Have you testified as an expert on
13 behalf of defendants in any lung disease cases or
14 chronic lung disease cases?

15 A. Yes.

16 Q. What types of cases were those?

17 A. The ones that I can think of are
18 chromium, asbestos, and -- I mean, I was involved in
19 another Brush litigation case.

20 Q. That was beryllium?

21 A. Beryllium. This was just for
22 pulmonary effects. Right?

23 Q. Yes.

24 A. We can include RADS as part of a
25 pulmonary effect; so it would also include

1 formaldehyde and organic solvents.

2 Q. In what other types of chronic
3 exposure cases have you testified for defendants?

4 A. Let's see. We've already listed
5 solvents, isocyanates, lead, aluminum, mercury --
6 take out mercury. That wasn't litigation --
7 silica. Those are the main ones I can think of.

8 Q. Okay. The isocyanates, was that a
9 pulmonary case?

10 A. Yes.

11 Q. And was the silica a pulmonary case?

12 A. Yes.

13 Q. And was the aluminum a pulmonary
14 case?

15 A. Actually, that was, too. Did you
16 expand that to everything? I forgot.

17 Q. I did. But it seemed to me we
18 mentioned --

19 A. Benzene. That's part of solvents.

20 Q. Sure.

21 A. Naphthalene. It wasn't a worker. It
22 was an environmental case. I'm trying to think of
23 other target organs. Those are still the main ones
24 that come to mind.

25 Q. Okay. Would it be true that more

1 than 95 percent of the testimony that you've
2 provided has been on behalf of defendants?

3 A. Yes.

4 Q. Other than this one acute exposure
5 chlorine gas case, are there any other cases in
6 which you've testified on behalf of an injured
7 worker?

8 A. I can't remember the injured worker,
9 but injured persons, I have done that.

10 Q. What such cases?

11 A. Cases involving carbon monoxide
12 exposures in vehicles and boats.

13 Q. Were those acute exposure cases?

14 A. Yes. Those are the ones I can think
15 of.

16 Q. Any others?

17 A. I can't think of any others at the
18 moment.

19 Q. With respect to the chlorine gas
20 exposure case, you were testifying on behalf of the
21 worker against the employer. True?

22 A. Actually, it was the worker against
23 the site. He worked for one company but was as part
24 of his job on another site.

25 Q. In that case you were not testifying

1 against a manufacturer of the chlorine. True?

2 A. The chlorine was generated by the
3 site that was being sued; so in a sense it was the
4 manufacturer, but it was a byproduct. It wasn't
5 meant to be generated. It was an accidental
6 emission.

7 Q. It was generated from what?

8 A. It was generated from the -- it was
9 at a hazardous waste treatment facility, and it was
10 generated from the accidental mixing of certain
11 chemicals.

12 Q. Okay. In the carbon monoxide cases,
13 did you testify against any of the manufacturers of
14 the vehicles?

15 A. Yes.

16 Q. Which manufacturers?

17 A. Twice against General Motors and once
18 against the Trojan Yacht Manufacturing Company.

19 Q. Have you ever testified against a
20 manufacturer of a chemical?

21 A. I can't think of any. I also --
22 actually, OSHA asked me to be an expert witness for
23 them against -- it was about a worker excessively
24 exposed to a solvent; so I was an expert witness for
25 OSHA against the manufacturer. Not the

1 manufacturer, but the employer of this worker.

2 Q. When was that?

3 A. That would have been about 1986, I
4 think.

5 Q. Who was the attorney who hired you
6 for the chlorine gas case?

7 A. It was a plaintiff firm out of
8 Chicago. I don't remember the name.

9 Q. Do you remember the name of the
10 attorney or attorneys who hired you for the carbon
11 monoxide cases?

12 A. I don't remember the name.

13 Q. Now, we've been talking about cases
14 in which you've testified at deposition. Have you
15 also testified at trials?

16 A. I have testified at trials.

17 Q. How many?

18 A. Total of 30.

19 Q. In any of the trials that you
20 testified in, did you ever testify on behalf of a
21 worker who claimed to have sustained injury from
22 chronic exposure to a chemical or toxin?

23 A. No.

24 Q. With respect to the more than 30
25 trials, in all those trials did you testify on

1 behalf of the defendant, a defendant?

2 A. No.

3 Q. In which cases did you not testify on
4 behalf of the defendant?

5 A. I know in one of the carbon monoxide
6 cases against General Motors, I testified as a
7 plaintiff expert.

8 Q. Any other cases?

9 A. That's the only one I can think of.
10 Oh, the OSHA -- when I testified as an expert for
11 OSHA, that went to trial.

12 Q. Was that a chronic exposure case?

13 A. No. I think we could call that
14 acute.

15 Q. What was the injury in that one?

16 A. Well, there were several -- he had
17 several incidents in which he was exposed. I know
18 he had a heart attack or arrhythmias one time, and I
19 think on subsequent exposures the arrhythmia was so
20 severe, I believe it killed him.

21 Q. What was the toxin?

22 A. It was a freon solvent.

23 Q. Now, in addition to trials and
24 depositions, have you also consulted where you did
25 not testify?

1 A. Yes.

2 Q. Approximately how many consultation
3 matters regarding litigation were there where you
4 did not testify?

5 A. I don't know the number. Just to
6 give you a ballpark figure, probably several
7 hundred.

8 Q. With regard to those matters, those
9 consultation matters, were any of those on behalf of
10 a worker claiming chronic exposure to a toxin and
11 injury?

12 A. Yes.

13 Q. About how many?

14 A. I can think of two.

15 Q. And what did they involve, generally?

16 A. Both were silica exposure cases.

17 Q. Where the claimed injury was
18 silicosis or what?

19 A. Yes.

20 Q. Now, you mentioned that you had a
21 prior beryllium case. Is there only one prior
22 beryllium case that you've been involved with?

23 A. There's only one prior beryllium case
24 where I've testified.

25 Q. Are you currently involved in other

1 beryllium cases?

2 A. I have written some reports in some
3 other beryllium cases, but they may have all settled
4 by now. I don't know.

5 Q. Approximately how many beryllium
6 cases have you been engaged as a consultant on?

7 A. I believe somewhere around six or
8 seven. I don't know the exact number. I'm just
9 ballparking it.

10 Q. What was the beryllium case that you
11 testified in?

12 A. The name of the case was -- it was a
13 deposition -- Roberts.

14 Q. Was that a chronic beryllium disease
15 case here in Southern California?

16 A. No.

17 Q. Was it a chronic beryllium disease
18 case?

19 A. Yes.

20 Q. And who engaged you for that case?

21 A. Mr. Nova.

22 Q. In that case did the worker have CBD?

23 A. I believe he did, if I recall.

24 Q. And do you recall where he worked?

25 A. I don't remember the name of the

1 company.

2 Q. Was it in California?

3 A. Yes.

4 Q. Was it Ceredyne?

5 A. That sounds familiar.

6 Q. What was nature of the testimony that
7 you gave in that case?

8 A. That was far enough back, I don't
9 remember. I don't remember what I said. I'd have
10 to look at the deposition.

11 Q. Do you have the deposition?

12 A. No.

13 Q. Does your company have the
14 deposition?

15 A. I don't think so.

16 Q. Okay. Do you have any recollection
17 of what you were engaged to testify about in that
18 case?

19 A. I mean, I know often what claims are
20 made, but, you know, I just don't remember what the
21 specific issues were there without seeing the
22 deposition.

23 Q. Well, let me ask some specific
24 questions and see if you recall. In that Roberts
25 case, first of all, was that an occupational case?

1 A. Yes.

2 Q. Was Roberts a Mr.?

3 A. Yes.

4 Q. In the Roberts case, did you do a
5 dose assessment?

6 A. My recollection is that there were
7 exposures in excess of 2.

8 Q. That's what you recall about the
9 case?

10 A. I recall that I believe it was clear
11 that he was exposed above the OSHA limit. In fact,
12 I believe his employer had received citations from
13 Cal OSHA for him being exposed over the limit.

14 Q. And was your testimony in that case
15 that the employer was negligent or failed to
16 exercise reasonable care?

17 A. Again, I have to go back to the
18 deposition. I don't remember.

19 Q. In that case, did you evaluate
20 monitoring data?

21 A. I know I saw some monitoring data.
22 Again, without having the deposition, I don't
23 remember exactly what I was asked to do.

24 MR. NOVA: Somebody has been fairly
25 desperately ringing your phone off the hook. I

1 don't know if that's meaningful.

2 MR. METZGER: I hear it. I concur.

3 Q. In the Roberts case, were you
4 testifying on behalf of Brush Wellman?

5 A. Yes.

6 Q. And was part of your testimony that
7 Brush Wellman was not responsible for Mr. Roberts'
8 chronic beryllium disease because his employer had
9 not maintained exposure levels below 2 micrograms
10 and had, in fact, been cited by OSHA?

11 A. Again, I'd have to go back to the
12 deposition. I just don't remember the specifics.

13 Q. Now, what other beryllium cases have
14 you been engaged on?

15 A. I was involved in several cases
16 regarding employees of Brush Wellman.

17 Q. And who engaged you on those cases?

18 A. Jeff Ubersax.

19 Q. And Jeff Ubersax is an attorney who
20 represents Brush Wellman?

21 A. Yes.

22 Q. So in these other cases you've also
23 been engaged as a consultant on behalf of
24 Brush Wellman?

25 A. Yes.

1 Q. And are these chronic beryllium
2 disease cases?

3 A. Yes.

4 Q. What are the names of those cases?

5 A. Norgard is one. Gamez is another.
6 Those are the names that I remember.

7 Q. Faccio?

8 A. That does not sound familiar.

9 Q. Stucker?

10 A. That doesn't ring a bell.

11 Q. Have you written reports for each of
12 these cases?

13 A. No.

14 Q. For some of them?

15 A. Yes.

16 Q. How many reports have you written?

17 A. I can remember writing two.

18 Q. And what were they about?

19 A. Again, I'd have to have them. I
20 mean, they were about the plaintiff's claim
21 regarding their chronic beryllium disease.

22 Q. Well, you are not a medical doctor.
23 Correct?

24 A. That's correct.

25 Q. What specifically were you asked to

1 do in those cases?

2 A. I don't remember the specific issues
3 I was asked to address.

4 Q. When did you write these reports?

5 A. About a year ago, maybe a little
6 less.

7 Q. When did you actually write them?

8 A. That was when I would have written
9 them. I think that's about the time frame. It
10 might have been a little less.

11 Q. Might it have been six months ago?

12 A. It's possible.

13 Q. Can you tell me anything about what
14 these reports were about?

15 A. Some of them were about the state of
16 the art about what was known about beryllium disease
17 at various times, the adequacy of the current OSHA
18 limit for beryllium.

19 Q. What else?

20 A. That's what I remember.

21 Q. Those are the two reports?

22 A. The two reports had some different
23 aspects. One employee was hired fairly late in the
24 game. I mean by that in I think the middle '90s.
25 One report dealt with some other issues because he

1 was hired earlier, and I don't remember. So they
2 were different from the standpoint of the different
3 years involved.

4 Q. Who was the employee who was hired in
5 the mid '90s?

6 A. I don't remember the name.

7 Q. It was a Brush Wellman employee --

8 A. Yes.

9 Q. -- who developed chronic beryllium
10 disease?

11 A. Yes. At least that was the claim. I
12 didn't evaluate the medical aspects.

13 Q. Well, did you see any medical reports
14 indicating that the worker had chronic beryllium
15 disease?

16 A. My recollection was that he did have
17 chronic beryllium disease.

18 Q. And do you recall what the time
19 period was from commencement of that worker's
20 employment until the diagnosis?

21 A. My recollection is that it was
22 several years.

23 Q. At which plant did this occur?

24 A. The Elmore plant.

25 Q. Did you conclude in that case that

1 the Elmore plant had failed to maintain exposures or
2 exposure levels below 2 micrograms?

3 A. I mean, I don't know if we're
4 limiting it to just that report, but I have seen
5 information regarding the sampling data at Elmore,
6 and there had been employees at various times who
7 have been exposed over the 2 microgram limit.

8 Q. At Brush Wellman?

9 A. At Brush Wellman, yes.

10 Q. I see. Was this employee who was
11 hired in the mid 1990s at the Elmore plant exposed
12 above the 2 microgram level?

13 A. I don't remember if there was
14 documentation to show he was or wasn't. I don't
15 remember at this time.

16 Q. Did you visit the Elmore plant --

17 A. Yes.

18 Q. -- in connection with these cases?

19 A. Yes.

20 Q. About when was that?

21 A. Let's see. I'm trying to think if it
22 was cold or not. I think it was last winter. It
23 wasn't that cold. It might have been spring. I'm
24 not sure.

25 Q. This past spring?

1 A. It's possible.

2 Q. Okay. And did you go to the plant to
3 observe the facilities there?

4 A. We went to the plant, and we did tour
5 work areas where the plaintiffs work.

6 Q. Who is the "we" you're referring to?

7 A. There were some plaintiff experts
8 there, also.

9 Q. Who?

10 A. A Dr. Ellen Becker was one. There
11 was another one. I don't remember his name.

12 Q. Were there any attorneys there?

13 A. Yes.

14 Q. Who?

15 A. There were plaintiff attorneys and a
16 defense attorney.

17 Q. Who was the defense attorney?

18 A. I don't remember his name.

19 Q. Who were the plaintiff attorneys?

20 A. I don't remember their names.

21 Q. And did you observe the workers doing
22 their jobs at Elmore at the time?

23 A. We did see workers in the facility
24 while we were touring the plant.

25 MR. NOVA: Well, wait a minute. Was that

1 question did you observe the two in the lawsuits or
2 workers in general?

3 THE WITNESS: This is workers in general.
4 They were no longer working there.

5 BY MR. METZGER:

6 Q. Sure. And in the course of doing
7 this, did you observe any engineering control
8 devices which had been installed in the plant to
9 reduce or to eliminate exposures?

10 A. I definitely saw engineering controls
11 in the plant that were used to reduce employee
12 exposures to beryllium.

13 Q. What type of engineering controls did
14 you see?

15 A. I saw local exhaust ventilation
16 systems and enclosures.

17 Q. What do you mean by "enclosures"?

18 A. That, for example, certain grinding
19 operations that in addition to wet methods and both
20 has an engineering benefit but also an exposure
21 reduction benefit. In addition to local exhaust and
22 wet methods, that there were barriers or shields or
23 enclosures installed to further prevent the emission
24 of particulates.

25 Q. Could you describe what these were

1 when you say "barrier" or "shield"?

2 A. I thought I just did.

3 Q. Did these barriers or shields
4 separate the worker doing the grinding from the
5 environment in which the beryllium was being ground?

6 A. Well, if it was a total enclosure,
7 then yes.

8 Q. Were there total enclosures there?

9 A. I've seen total enclosures, yes.

10 Q. I haven't seen one. Can you tell me
11 what that looks like or if there's a particular name
12 for the device?

13 A. It's not a device. It's an
14 enclosure. It's a fabrication fabricated of metal
15 or plexiglass or whatever the pieces are to enclose
16 the process.

17 Q. And is it a separate room?

18 A. What I'm referring to is just
19 something on the piece of equipment that's doing the
20 work.

21 Q. I see. And is that what you meant by
22 "barriers" and "shields"?

23 A. Well, sometimes typically barriers
24 and shields don't mean a total enclosure. It's
25 partial.

1 Q. But you saw some enclosures which
2 were on the machines?

3 A. Yes.

4 Q. And those were total enclosures?

5 A. I did see that.

6 Q. Okay. In order for the worker, the
7 grinder, to do his job, does he on occasion have to
8 open the enclosure?

9 A. Yes.

10 Q. Why is that?

11 A. To put the piece in, take the piece
12 out.

13 Q. Any other reason?

14 A. I don't know. If he might be making
15 a measurement or checking, he might stop the
16 operation.

17 Q. Have you seen that?

18 A. Have I seen -- I have seen such
19 operations. I don't remember if I specifically saw
20 that at the Elmore plant.

21 Q. At the Elmore plant while this
22 worker -- while the workers were operating these
23 grinding machines with these barrier shields or
24 enclosures, were they wearing respirators?

25 A. I believe at the last time I was at

1 Brush, they were wearing respirators. I am not able
2 now to differentiate all the different processes.
3 We saw a number of different processes. The use of
4 respiratory protection at the Elmore plant has been
5 increased more recently over the past, and I've been
6 to the site several times. There were still some
7 operations that we observed where they were not
8 wearing respirators. It would be difficult for me
9 at this time to remember just where they were and
10 where they weren't.

11 Q. How did the respiratory protection
12 increase over the course of your visits to the Brush
13 Elmore facility?

14 A. Their use was required at operations
15 or in situations or locations currently, where in
16 the past they were not.

17 Q. And what are some of those operations
18 where they were required recently, where they hadn't
19 been earlier?

20 A. As I recall, in some of the primary
21 manufacturing operations, they are required all the
22 time now, where they weren't before.

23 Q. And what are such operations?

24 A. Where they're taking the beryllium
25 hydroxide as it comes into the plant and processing

1 it into beryllium metal.

2 Q. Were respirators recently required
3 constantly for grinding operations?

4 A. I do recall still seeing some
5 grinding operations where they didn't require
6 respiratory protection.

7 Q. Were those operations where there
8 were enclosures?

9 A. Again, at this time I cannot
10 definitively -- I did not make an itemized list of
11 just how complete all of them were or just where
12 respirators were or were not used.

13 Q. Were there any changes in the type of
14 respiratory equipment that you saw over the course
15 of your visits to the Elmore plant?

16 A. I seemed to see more use of powered
17 air purifying respirators. I don't recall whether
18 that change was because of a need for increased
19 protection factors or for comfort or just -- at this
20 point I don't remember why they were using them. It
21 also may have been because if you wear a loose
22 fitting PAPR, you don't have to have a quantitative
23 fit test.

24 Q. A PAPR?

25 A. Powered air purifying respirator.

1 Q. What is that?

2 A. It's an air purifying respirator that
3 maintains a positive pressure in the face piece.

4 Q. Does that contain an independent air
5 supply?

6 A. No.

7 Q. How does it differ from the
8 traditional cartridge or canister respirators?

9 A. Again, while both have a filter to
10 remove the contaminant from the ambient air, a
11 powered air purifying respirator has a fan
12 downstream from the filter to then create a positive
13 pressure in the face piece, whereas a respirator you
14 typically think of is negative pressure, draws the
15 air through the filter by creating a vacuum in the
16 face piece for ventilation.

17 Q. So this is actually blowing the air
18 out of the face piece?

19 A. It's blowing the air into the face
20 piece. The face piece may be either tight fitting
21 or loose fitting.

22 Q. And the concept is that this prevents
23 particles from penetrating through the filter?

24 A. No.

25 Q. Could you explain what the concept

1 is?

2 A. The concept of both types of
3 respirators is to provide a healthful, a
4 noncontaminated breathing air to the employee.

5 Q. Does a powered air purifying
6 respirator do a superior job to the negative
7 pressure respirators?

8 A. There is some debate. It's my belief
9 that they do.

10 Q. Why?

11 A. Because you're creating a positive
12 pressure in the face piece instead of a negative
13 pressure.

14 Q. And what is the effect of that?

15 A. The effect is for a loose fitting, as
16 long as you don't overbreathe, meaning inhale at a
17 rate that is greater than the air supply, if you
18 always maintain a positive pressure in the face
19 piece, you are less likely to -- you'll just get
20 better protection.

21 Q. Why?

22 A. Because if you have a negative
23 pressure respirator and you have a small leak in the
24 seal, you can draw in some contaminated air. But at
25 the moment, even the positive pressure powered air

1 purifying respirators, the loose fitting ones, only
2 have a protection factor of 25, and a negative
3 pressure half face piece respirator has a protection
4 factor of 10.

5 Q. And 25 is better than 10?

6 A. Yes. Although most people think it
7 should be 500.

8 Q. Were workers who were doing grinding
9 at Elmore wearing these powered air purifying
10 respirators?

11 A. Again, I don't remember. I didn't
12 correlate exactly where they were wearing
13 respirators, exactly what was going on. I just
14 don't remember now.

15 Q. Okay. Were any of the workers who
16 you observed at the Elmore plant using independent
17 air supply respirators?

18 A. I think I remember seeing one, but
19 I'm not sure.

20 Q. Was that recent?

21 A. It would have been at my last visit.

22 Q. Were any of the workers at the Elmore
23 plant doing their jobs in glove boxes?

24 A. I didn't see any workers using glove
25 boxes. I don't remember now if I saw any glove

1 boxes or not.

2 Q. Were any of the workers at that plant
3 doing their jobs in chambers which were isolated
4 from the rest of the area?

5 A. There definitely were areas which
6 were separated from other areas. I mean the answer
7 is there are many areas that are separated from
8 other areas.

9 Q. And what types of operations were
10 physically separated from others?

11 A. Well, I don't remember the specific
12 names now.

13 Q. How many times have you been to the
14 Elmore plant?

15 A. I can think of three times.

16 Q. During what period of time?

17 A. Perhaps the last three, four years.

18 Q. And what were the purposes of your
19 visits?

20 A. The purposes were to learn more about
21 how beryllium is processed and the controls and the
22 programs that are in place to protect workers.

23 Q. When you visited the plant, did you
24 wear any respiratory protection?

25 A. Yes.

1 Q. What did you wear?

2 A. I wore a half face piece negative
3 pressure respirator and a powered air purifying
4 respirator.

5 Q. Was that something that you chose to
6 wear yourself, or were you instructed to wear that?

7 A. That was to comply with Brush
8 policies at the time.

9 Q. At the time when you visited these
10 plants, were you working with beryllium at all?

11 A. Was I actually working? When you say
12 "working," was I employed?

13 Q. What I mean is this: At any time
14 during these three visits when you visited the
15 Brush Wellman plant and wore a half face respirator
16 and a powered air purifying respirator, did you
17 actually yourself do any work with beryllium?

18 A. Are you asking me did I do a job that
19 an employee would do?

20 Q. Yes. Actually do some work with
21 beryllium as opposed to inspect.

22 A. Have an employee step aside and say,
23 "Hey, I'm going to do your job for a while"?

24 Q. Not necessarily that, but what I mean
25 is I'm just asking if you did any work yourself with

1 beryllium, any operation whatsoever. For example,
2 sometimes some experts might do a job just to see
3 how the process works and what the difficulties
4 are. Did you do anything like that?

5 A. No. I did not actually turn valves
6 or pour molten beryllium metal. No, I did not do
7 that.

8 Q. What would turning the valve do?

9 MR. NOVA: Objection; vague.

10 THE WITNESS: Turning a valve on, say, a
11 pipe would open or close the flow in the pipe.

12 BY MR. METZGER:

13 Q. I see what you mean.

14 Now, who told you that it was
15 Brush Wellman policy that you were to wear the half
16 face respirator and a powered air purifying
17 respirator during your visits to the plant?

18 A. It was an industrial hygienist.

19 Q. Who?

20 A. Mike Kent was one. I don't remember
21 the other. There were three all together that I
22 remember. I don't remember the names of the other
23 two.

24 Q. Was one of them Marc Kolan?

25 A. No.

1 Q. You know Marc?

2 A. Yes.

3 Q. When you were told that you were to
4 wear this respiratory equipment, were you surprised?

5 A. No.

6 MR. NOVA: Objection; vague.

7 BY MR. METZGER:

8 Q. Why were you not surprised?

9 A. Because I was complying with the
10 Brush rules for wearing respiratory protection at
11 the plant.

12 Q. Did you see any written rules?

13 A. There may have been some signs that
14 you must wear respiratory protection in a given
15 area. Yeah, I think there were some signs that I
16 saw.

17 Q. Well, did you see any written
18 instructions or rules or even a contract or
19 something that stated that you had to wear as a
20 visitor the respiratory protection that you
21 described?

22 A. In some of the written materials,
23 employee handouts, I don't think it would probably
24 talk about a visitor.

25 MR. NOVA: Don't speculate. It's a very

1 specific question.

2 THE WITNESS: I don't remember now if I saw
3 written materials in program manuals that -- I don't
4 remember.

5 BY MR. METZGER:

6 Q. Did you have to sign any documents
7 before you were allowed into the plant?

8 A. I don't recall signing a document.

9 Q. Was there anything else that you were
10 instructed to wear during the time that you were in
11 the plant?

12 A. Well, on one of the visits I changed
13 clothes.

14 Q. Were you instructed to wear the
15 respiratory protection that you've described, a half
16 face -- what kind of half face respirator?

17 A. Half face piece negative pressure.

18 Q. -- that respirator and the powered
19 air purifying respirator throughout the time that
20 you were in the plant?

21 A. The visit when I was using the half
22 face piece respirator, no. When we were using the
23 PAPR, I also don't believe it was 100 percent of the
24 time when we were in the plant.

25 Q. I was asking you what you were

1 instructed. Were you instructed to wear the PAPR
2 throughout the entire time you were in the plant?

3 A. I think I just said not 100 percent
4 of the time.

5 Q. What was the instruction as far as
6 when you should wear that?

7 A. I believe certain outside areas and
8 there might have been certain locations where they
9 said, "You don't have to wear it here."

10 Q. So as you went through the plant, you
11 were told in specific areas that "Well, now you
12 don't have to wear it"?

13 A. Yes.

14 Q. And when you went into an area where
15 you were told that you did not have to wear it, did
16 you actually take it off?

17 A. Yes.

18 Q. Do you know what a biologic safety
19 cabinet is?

20 A. I'm not sure. No. I'm not sure what
21 you mean by that.

22 Q. Well, have you ever heard the term
23 before?

24 A. That specific term, no.

25 Q. Okay. Were there any other types of

1 engineering controls or protective equipment that
2 you observed on your most recent trip to Elmore?

3 A. In addition to ventilation, closed
4 system design, isolation, respiratory protection,
5 separate clothing. Those are the main things I
6 remember.

7 Q. When you say "closed system design,"
8 are you talking about anything different than what
9 you described earlier as an enclosure around a
10 machine?

11 A. Well, just in the processing
12 equipment at the plant, they attempt to have closed
13 systems wherever possible.

14 Q. What is a closed system?

15 A. A closed system is where you are
16 conducting an operation in an enclosed process so
17 that exposures don't occur.

18 Q. And when you refer to "isolation,"
19 what are you referring to?

20 A. That certain processes might be in
21 separate rooms, where employees may or may not have
22 to go into it, limiting access, further reducing the
23 potential for exposure.

24 Q. By "limited access" you mean that
25 only employees who actually do the process are

1 allowed in those rooms?

2 A. That would be one aspect, yes.

3 Q. Did you observe that when you were at

4 Elmore?

5 A. Well, in many locations as we walked

6 through, we saw isolated areas with no one in them.

7 Q. I'm sorry. Isolated areas that what?

8 A. With no one in them.

9 Q. What was the significance of that to

10 you?

11 A. There was no one in them. You just

12 asked me. I just said I saw isolated areas with no

13 one in them.

14 Q. Did you see signs which said "Limited

15 access only to workers who do this process,"

16 something of that nature?

17 A. I don't remember.

18 Q. Have you visited any other

19 Brush Wellman plants?

20 A. Yes.

21 Q. Which others?

22 A. Tucson.

23 Q. Any others?

24 A. I think that's it.

25 Q. How many trips have you made to

1 Tucson?

2 A. One.

3 Q. When was that?

4 A. Maybe about three years ago.

5 Q. And was that regarding a case?

6 A. I don't remember if that was specific

7 to a case or not.

8 Q. What did you do at the Tucson plant?

9 A. I toured it.

10 Q. Incidentally, did you take written

11 notes at the time you were touring these plants?

12 A. I took some, yes.

13 Q. And do you still have those?

14 A. I have some of them.

15 Q. Have you destroyed any?

16 A. I haven't destroyed any. I'm still

17 looking for some of them.

18 Q. When you visited Tucson, the Tucson

19 plant of Brush Wellman, did you observe the same

20 types of engineering controls that you've just

21 described?

22 A. Yes.

23 Q. Did you observe workers wearing the

24 same type of respiratory protection that you've just

25 described?

1 A. I certainly remember the half face
2 piece respirators. I don't remember if I saw other
3 types.

4 Q. When you visited Tucson, did you wear
5 a respirator?

6 A. Hmmm, certainly not throughout the
7 plant. Whether I used one for any special area, I
8 don't remember.

9 Q. Were you instructed that you were to
10 wear a respirator in certain areas?

11 A. That's what I don't remember.

12 Q. Now, at Tucson did you see any glove
13 boxes?

14 A. I think I did.

15 Q. What exactly is a glove box?

16 A. A glove box is -- it generally looks
17 like some type of box of varying size, and generally
18 you will have some type of large opening that can
19 close; and when it's closed, it seals the box. Then
20 you have two holes, and in these two holes you have
21 clamped rubber gloves. The employee puts his hands
22 through these holes and into the gloves; so he's
23 able to conduct certain operations inside this box
24 and handle materials and do things. Yet, there is
25 no potential for any airborne contamination in the

1 box to get outside.

2 Q. When the worker puts his hands in
3 these gloves, through the hole and into the gloves,
4 is the worker handling beryllium?

5 A. In this particular situation, yes, he
6 would probably be handling a beryllium product.

7 Q. And when the worker is handling the
8 beryllium product using this glove box, is the
9 worker exposed to beryllium?

10 A. No. As long as the glove box is
11 working properly, he would not be.

12 Q. What operations did you see workers
13 doing at Tucson where they were using glove boxes?

14 A. I don't remember the specific
15 operation.

16 Q. Have you ever seen a glove box before
17 you were there at Tucson?

18 A. Yes.

19 Q. For what type of operation?

20 A. I've seen them in industry, abrasive
21 blasting cabinets. That's what I can think of.

22 Q. When you say "cabinets," what do you
23 mean?

24 A. It was a glove box, but it was larger
25 so it could accommodate an abrasive blasting

1 operation.

2 Q. But what is a cabinet?

3 A. Well, like I say, I call it a cabinet
4 because it's probably larger than what I think of as
5 a typical glove box size.

6 Q. A larger device that functions like a
7 glove box but you call a cabinet, would that be a
8 biologic safety cabinet?

9 MR. NOVA: I'm going to object. Asked and
10 answered. He already said he doesn't know what a
11 biologic safety cabinet is.

12 BY MR. METZGER:

13 Q. If you know.

14 MR. NOVA: He already said he didn't know.

15 THE WITNESS: I don't know what you mean by
16 a biologic safety cabinet.

17 BY MR. METZGER:

18 Q. Have you ever used the term before?

19 A. No.

20 Q. Okay. All right.

21 A. At least not that I can remember --

22 Q. All right.

23 A. -- since I'm not sure what you mean
24 by it.

25 Q. Well, I'm not asking you if you used

1 it in the way that I mean. I'm just asking if
2 you've ever used the words "biologic safety cabinet"
3 in your career.

4 A. I can't recall because I'm not sure
5 what that means.

6 Q. Well, did you ever use the words when
7 you didn't know what it means?

8 A. Hopefully not.

9 Q. Okay. Have you ever done any
10 industrial hygiene surveys at hospitals?

11 A. Yes.

12 Q. And in the course of doing industrial
13 hygiene surveys at hospitals, did you ever do any
14 industrial hygiene service where antineoplastic
15 agents are prepared?

16 A. I have not done actual sampling
17 there, but I have observed those hoods.

18 Q. Do you have an understanding that the
19 hoods in which antineoplastic agents are prepared
20 are biologic safety cabinets?

21 A. If you want to call what I saw, the
22 hood where the antineoplastic agents were prepared,
23 a biological safety cabinet, then that's fine. I
24 didn't call it that.

25 Q. What do you call that?

1 A. A hood.

2 Q. Have you seen any hoods of the type
3 that you saw in hospitals where antineoplastic
4 agents were being prepared at either the Elmore or
5 Tucson site?

6 A. Yes.

7 Q. At both?

8 A. I believe so.

9 Q. In what operations?

10 A. I don't know.

11 Q. What is your understanding of how
12 such a device functions?

13 A. The device has a limited opening on
14 the front, and air is usually exhausted from the
15 back so that it is continually drawing fresh air
16 through the employee who stands in front of it,
17 through their breathing zone, and then into the hood
18 so that any emissions from any operation inside that
19 hood goes backwards out the exhaust rather than
20 forward into the worker's breathing zone.

21 Q. And the exhaust is exhausted outside
22 of the environment where the worker is working.
23 Correct?

24 A. Well, it probably goes through some
25 type of collector --

1 Q. Right.

2 A. -- before going out into the
3 environment.

4 Q. But it doesn't go back into the room?

5 A. There are cabinets where they may
6 recirculate -- may filter it and recirculate it into
7 the room. I'm not aware of Brush doing that.

8 Q. All right. The ones that you saw at
9 Brush did not go back into the room?

10 A. It looked like the piping was going
11 outside, yes.

12 Q. And when you saw these at the Tucson
13 and Elmore facilities, were workers using them?

14 A. I don't remember now if a worker was
15 standing in front doing it or we just observed it.

16 Q. Now, from your understanding, do
17 these devices prevent worker exposure to beryllium
18 just as the glove boxes do?

19 A. If they're properly designed for the
20 size of the opening and for the operation, then they
21 can be quite effective. From a theoretical
22 standpoint, a glove box, if you had an accidental
23 spill or did something, it should completely prevent
24 any emission.

25 If you were using a hood and

1 something happened where you possibly had some
2 accidental situation, emissions could possibly
3 overcome the velocity of the incoming air, and
4 something could get out. So I would say that the
5 glove box has less of a possibility for an
6 accidental exposure; but, again, a hood if probably
7 designed can work very well.

8 MR. NOVA: Can we take a break at an
9 appropriate moment?

10 MR. METZGER: Let's take a break right
11 now.

12 (A recess was taken.)

13 BY MR. METZGER:

14 Q. Dr. Rabinovitz, when is the first
15 time that you ever saw a glove box?

16 A. I can't tell you the first time.

17 Q. Can you estimate the decade?

18 A. I'll estimate '60s or '70s.

19 Q. And when is the first time you ever
20 saw a biologic safety cabinet or the type of hood
21 that you've described where antineoplastic agents
22 are prepared?

23 A. A hood? I guess we can go back to
24 high school.

25 Q. Which would be what decade?

1 A. Late '50s, early '60s.

2 Q. All right. In industry have you seen
3 hoods -- strike that.

4 From your training and experience and
5 your reading, have you learned when glove boxes were
6 first available?

7 A. No. I can't say that I've ever made
8 any evaluation of when a glove box was first
9 available.

10 Q. When is the first time that you are
11 aware of that it was available?

12 A. Like I say, in the '60s probably.
13 That's only probably because of my age. I would
14 suspect it goes back further than that.

15 Q. You just don't know?

16 A. I just don't know.

17 Q. Okay. Now, what have you been asked
18 to do in this case?

19 A. I have been asked to look at some
20 materials and to draw some conclusions regarding
21 whether Mr. Gabaldon's employer was a sophisticated
22 employer in the sense that they would have the
23 wherewithal to provide Mr. Gabaldon with a safe
24 working environment.

25 I was also asked to look at whether

1 Brush Wellman, as the supplier of some beryllium
2 products, would provide some warnings to
3 Mr. Gabaldon's employer so that it would assist them
4 in their responsibility in providing Mr. Gabaldon
5 with a safe workplace.

6 Q. Anything else?

7 A. That was the general request.

8 Q. Okay. Let me back up a minute and
9 ask you this: Before you were engaged as a
10 consultant for Brush Wellman a few years ago -- was
11 it about three years ago?

12 A. No. It was longer.

13 Q. How long ago?

14 A. I don't know the exact time, but I'll
15 estimate around 1996.

16 Q. Okay. Before 1996, had you done any
17 work regarding beryllium?

18 A. Yes.

19 Q. What?

20 A. When I was with Ford Motor Company as
21 an industrial hygienist, we used beryllium welding
22 tips; so I did industrial hygiene surveys of
23 employees who dressed the tips to determine if they
24 would be exposed to levels of beryllium that would
25 be considered unhealthy.

1 Q. And what year was this?

2 A. This would have been somewhere in the
3 mid '70s.

4 Q. And did you write up a report for
5 this?

6 A. Yes.

7 Q. Do you still have that?

8 A. I did take some reports that I wrote
9 when I was with Ford, but I don't remember if I took
10 that one.

11 Q. And what was your conclusion at the
12 time?

13 A. At the time, the concentration was
14 below 2, and it was not something they did all day;
15 so we concluded since while they were working with
16 the beryllium material, they weren't exposed over 2,
17 that their time-weighted average would certainly be
18 below 2 and that that was a protective limit. So we
19 wrote a report saying no changes were required.

20 Q. Who is the "we" you're referring to?

21 A. Well, the industrial hygiene
22 department at Ford.

23 Q. And who were the authors?

24 A. Well, the author was me, but it would
25 have been reviewed by my supervisor.

1 Q. Who was that?

2 A. At that time it was Roger Wabeke.

3 Q. And did Mr. Wabeke approve your

4 report?

5 A. Yes.

6 Q. Now, what type of air sampling did

7 you do in this study?

8 A. Personal breathing zone or lapel

9 sample.

10 Q. Over what period of time did you do

11 the sampling?

12 A. It was during the entire operation

13 where he was working with a beryllium-containing

14 material.

15 Q. And that was on one day?

16 A. It was on one day. That's correct.

17 Q. Did you do any area sampling?

18 A. No.

19 Q. Did you do any wipe sampling?

20 A. No.

21 Q. Why did you not do any area sampling

22 for this study?

23 A. Because we were concerned what his

24 exposure was, and the best way to determine his

25 exposure was through a lapel sample.

1 Q. Can't you do that through an area
2 sample?

3 MR. NOVA: Objection; vague.

4 THE WITNESS: There are situations where
5 you can take an area sample, and you can use the
6 results of that sampling to accurately determine an
7 employee's exposure and, therefore, determine risk.
8 But there are some situations where taking a
9 personal breathing zone sample is superior.

10 BY MR. METZGER:

11 Q. And you felt in the particular
12 situation you were evaluating, taking a personal
13 breathing zone sample was superior?

14 A. In this particular situation, I felt
15 that that was the easier thing to do that would give
16 me correct results. In general, if you have a
17 choice between the two, in general, you will choose
18 a personal breathing zone sample.

19 Q. And that's because you're actually
20 sampling the air in a one-foot radius of the
21 worker's nose. Right?

22 A. You are sampling the air that the
23 employee is breathing.

24 Q. As opposed to just air in the area?

25 A. As opposed to air in the area. But

1 there are situations where measuring the air in the
2 area is also going to tell you what the employee's
3 exposure is.

4 Q. All right. Now, did you do this
5 evaluation on just one day, or did you repeat it
6 periodically?

7 A. Because this was an operation that
8 was going to be done in the identical manner in the
9 identical location under identical environmental
10 conditions, in other words there was not going to be
11 variability from day to day, we believed taking one
12 sample was adequate to predict this employee's
13 day-in and day-out exposure.

14 Q. Throughout his employment at Ford?

15 A. As long as that operation didn't
16 change.

17 Q. Did you follow up to determine
18 whether the operation changed over time?

19 A. Based on our understanding of what it
20 was, there was no reason to suspect it would change;
21 so we did not look at it again.

22 Q. And the "we" is you?

23 A. "We" is the industrial hygiene
24 department.

25 Q. All right. Incidentally, who was it

1 at Ford who perceived this potential hazard for
2 which you did this study?

3 A. You're asking me how did we decide we
4 needed to look at this?

5 Q. Right.

6 MR. NOVA: No. He's asking you who. He's
7 asking for the name of a person.

8 BY MR. METZGER:

9 Q. Was it you or Mr. Wabeke?

10 A. I don't remember.

11 Q. All right. Did you consider that the
12 results of your study at Ford were statistically
13 significant?

14 MR. NOVA: Object; vague.

15 THE WITNESS: Again, when you're talking
16 about statistical, I think you're implying looking
17 at a number of data points, and we only took one
18 sample. We believed that one sample was adequate to
19 evaluate this employee's exposure.

20 BY MR. METZGER:

21 Q. Do you believe that today?

22 A. Yes.

23 Q. Okay. So there are circumstances
24 where an employer can take just one sample of a
25 worker who is exposed to beryllium, even though the

1 worker is exposed over many years?

2 A. If you have a certain specific
3 criteria that can be met, I would say yes.

4 Q. And what is that criteria?

5 A. The criteria is that the sampling,
6 when you do the sampling, that those conditions are
7 going to be exactly the same all the time.

8 Q. And would that hold true where the
9 worker does the same job day in and day out, using
10 the same equipment?

11 A. Well, when you say "the same job," I
12 think you have to be a little more specific. There
13 can be variations. The same job may include doing
14 some thing one day or some things. But if we're
15 talking about doing the exact same things, not
16 varying either the work load, or, if anything, we
17 sampled under the highest work load. There were
18 times the guy didn't do as much work, but we sampled
19 when he would do the most he would possibly do.

20 So our results represented the worst
21 case situation, and therefore we felt -- and because
22 as I recall -- I don't remember what the exact
23 number was. We may not even have found any
24 beryllium based on the limit of sensitivity of the
25 analytical method -- that we concluded that there

1 was no significant risk and didn't have to do
2 anything further to permit this employee to work
3 safely.

4 Q. And this was your conclusion, and, as
5 you recall, you wrote this up in a report that was
6 approved by Mr. Wabeke?

7 A. Now I think it was either by him or
8 by the head of industrial hygiene, Paul Toth. I
9 don't remember who exactly, or it might have been
10 both.

11 Q. What was by them?

12 A. There was a point when Mr. Wabeke was
13 my supervisor. Then he wasn't my supervisor.

14 Q. I understand. Okay. You don't
15 recall specifically whether Mr. Wabeke was your
16 supervisor at the time you prepared this report?

17 A. I can't be sure. He was my
18 supervisor, then he wasn't, then he was again.

19 Q. So what you're saying is he may not
20 have actually reviewed and approved this report that
21 you did?

22 A. I think he did, but it's
23 theoretically possible it might have been in that
24 small window when he wasn't my supervisor.

25 Q. Other than this sampling of air for

1 beryllium that you did on this one occasion at Ford,
2 was there any other work throughout your career that
3 you did regarding beryllium?

4 A. I believe there were some other
5 samples I took where we analyzed for beryllium along
6 with other metals. I don't remember the specific
7 situation. I do recall we did not consider
8 beryllium to be likely to be a problem, but we
9 analyzed for it just in case.

10 Q. Where was this?

11 A. I can't remember now. I just
12 remember hitting beryllium as one of the metals we
13 were going to look for.

14 Q. And other than what you've just
15 described, is there any other work that you did
16 regarding beryllium prior to 1996, when you were
17 engaged by Brush Wellman?

18 A. Well, while I was with NIOSH and
19 working on criteria documents and also working on
20 generating respirator recommendations, and I also
21 worked on a NIOSH document where we identified
22 health hazards and some controls and respirator
23 recommendations for all chemicals, and I was in
24 charge of putting together the respirator
25 recommendations so that would have included

1 beryllium.

2 Q. How would that have included
3 beryllium?

4 A. Well, this document identified health
5 information on I believe it was OSHA -- either OSHA
6 regulated chemicals or chemicals that were listed in
7 the ACGIH TLVs. It's called "The Pocket Guide to
8 Chemical Hazards" by NIOSH.

9 Q. Did you write that?

10 A. What I indicated was that I was in
11 charge of preparing the respirator recommendations
12 for the chemicals in there, and that would have
13 included beryllium.

14 Q. Did you prepare the respirator
15 recommendations for all of the chemicals listed in
16 "The Pocket Guide"?

17 A. I was in charge of that section.
18 There were other people working at it. There were
19 other people reviewing it. But it was sort of my
20 project.

21 Q. And that was a pocketbook that -- a
22 pocket guide that concerns many chemicals. Correct?

23 A. Yes.

24 Q. Beryllium was just one of the many in
25 the booklet?

1 A. That's correct. And also to finish,
2 on some other criteria documents I worked on, while
3 they didn't address beryllium directly because some
4 of them were somewhat general in nature, it might
5 have mentioned beryllium.

6 Q. Did you ever work on the criteria
7 document for beryllium?

8 A. No.

9 Q. Did you ever work on any governmental
10 publication that was specifically a publication
11 regarding beryllium?

12 A. No.

13 Q. Is there any other work that you did
14 regarding beryllium prior to 1996 or thereabouts,
15 when you were engaged by Brush Wellman?

16 A. Not other than what we've talked
17 about.

18 Q. Have you published anything regarding
19 beryllium?

20 A. Again, only to the extent it would be
21 reflected in the NIOSH documents I worked on.

22 Q. Are there any experiments that you've
23 done regarding beryllium?

24 A. No.

25 Q. Have you written any report regarding

1 this case?

2 A. No.

3 Q. Do you have notes?

4 A. I have a few notes.

5 Q. Could I see those.

6 MR. NOVA: I think he means those.

7 THE WITNESS: I mean, I made some notes in a
8 document.

9 BY MR. METZGER:

10 Q. Are these the only separate notes
11 that you made that were not on a document that you
12 reviewed?

13 A. And this (indicating). There is -- I
14 had prepared a list of documents I reviewed. I
15 didn't bring that with me because I'm not relying on
16 that list for any of my opinions.

17 Q. That you reviewed for this case?

18 A. Yes.

19 Q. Do you have that list?

20 A. I don't have it with me.

21 MR. METZGER: Can that be provided on
22 Monday, Peter?

23 MR. NOVA: Under what category does that
24 fall?

25 MR. METZGER: Well, he just said that these

1 are documents that he reviewed regarding this case.

2 MR. NOVA: Well, my recollection is he's
3 obligated to produce documents that he's relying on
4 to support his opinion.

5 MR. METZGER: Category No. 3 asked for "All
6 documents, including reports and notes, which said
7 expert reviewed or consulted in connection with said
8 expert's retention as a consultant or expert in this
9 matter."

10 MR. NOVA: How does notes that he prepared
11 fall under that category?

12 MR. METZGER: That is exactly what this
13 category is asking.

14 MR. NOVA: I thought you just said that he
15 reviewed or consulted. Did you review or consult
16 your --

17 MR. METZGER: This is a list of documents
18 that he has reviewed. Documents --

19 MR. NOVA: He created a list.

20 MR. METZGER: Let me ask this question.

21 MR. NOVA: At least I thought that's what he
22 said.

23 BY MR. METZGER:

24 Q. The list is a list of documents that
25 you reviewed regarding this case?

1 A. Yes.

2 Q. Are all those documents here?

3 A. No.

4 Q. Why not?

5 A. Because what I brought with me were
6 documents that I relied on in forming my opinions.

7 Q. Do you understand that you were also
8 to bring with you the documents that you reviewed
9 regarding this case?

10 A. It was my understanding that I just
11 had to bring the documents that I was going to use
12 in support of my opinions.

13 MR. METZGER: Mr. Nova, I would like those
14 documents here tomorrow and the list. It's clearly
15 within the scope of the request. I really can't
16 complete this deposition until I've seen what he has
17 reviewed for this case.

18 MR. NOVA: Now is the time for his
19 deposition, not for discussions among counsel.

20 MR. METZGER: All right. Well, I'm making a
21 formal request that they be provided here no later
22 than Monday. Maybe we'll have to continue this
23 deposition until Monday.

24 MR. NOVA: We're not continuing the
25 deposition. You can take that up with Judge Watson.

1 As to what position we're going to take on the
2 documents, we can do that later.

3 BY MR. METZGER:

4 Q. Generally speaking, what are the
5 documents that you have reviewed regarding this case
6 that you did not bring with you?

7 A. There were some medical
8 questionnaires that Mr. Gabaldon had filled out.
9 There were some air sampling data, some calibration
10 of equipment. There were -- that's all I can
11 remember now that isn't a part of what I brought
12 with me.

13 Q. Was there any medical toxicology or
14 industrial hygiene literature that you reviewed that
15 you haven't brought with you?

16 A. I mean, I have been looking, and as a
17 practicing industrial hygienist, I review that kind
18 of literature all the time. But there was nothing
19 that I reviewed specific that I think I would need
20 for drawing these conclusions other than just my
21 general knowledge of industrial hygiene.

22 Q. Okay. Have you formed an opinion for
23 each of the two areas that you were asked to consult
24 on?

25 A. Yes. I have formed some conclusions

1 based on my review of those aspects I was asked to
2 look at.

3 Q. Have you completed your work in this
4 case?

5 A. To the extent that I have formed
6 opinions in the subject areas I was asked to look
7 at, at this time, yes, unless I'm asked to do other
8 things.

9 Q. Would you tell me what your opinion
10 is regarding the first area.

11 A. The first area regarding whether
12 Rockwell or Boeing or the various names of
13 Mr. Gabaldon's employer, I felt they had enough
14 occupational health -- occupational safety and
15 health sophistication that they were certainly
16 capable of knowing how to provide a safe environment
17 for Mr. Gabaldon to work in.

18 MR. METZGER: Would you read that back,
19 Lyn.

20 (Answer read.)

21 THE WITNESS: And I might add to that the
22 caveat based on the occupational health knowledge
23 for the various time periods in which he worked.

24 BY MR. METZGER:

25 Q. Okay. And what is your second

1 opinion?

2 A. My second opinion was that
3 Brush Wellman did provide warning material and,
4 also, information to Mr. Gabaldon's employer to
5 assist them in providing a safe environment for
6 Mr. Gabaldon with regard to working with beryllium.

7 Q. The two pages of notes that you've
8 prepared, these two go together. Correct?

9 A. Yes.

10 MR. METZGER: That will be Exhibit 3.

11 (A copy of the aforementioned
12 document, consisting of two pages, was
13 marked by the court reporter as
14 Plaintiffs' Exhibit+ 3 for identification;
15 attached hereto.)

16 MR. METZGER: And this other page of notes
17 will be Exhibit 4.

18 (A copy of the aforementioned
19 document, consisting of two pages, was
20 marked by the court reporter as
21 Plaintiffs' Exhibit+ 4 for identification;
22 attached hereto.)

23 BY MR. METZGER:

24 Q. All right. May I see the rest of the
25 documents that you have here?

1 (Counsel peruses documents)

2 Okay. Let's mark the November 9,
3 1951 letter as Exhibit 5.

4 (A copy of the aforementioned
5 document, consisting of four pages, was
6 marked by the court reporter as
7 Plaintiffs' Exhibit+ 5 for identification;
8 attached hereto.)

9 MR. METZGER: The excerpt from the
10 Kettering Laboratory Report, Page 8 thereof and the
11 title page, will be Exhibit 6.

12 (A copy of the aforementioned
13 document, consisting of two pages, was
14 marked by the court reporter as
15 Plaintiffs' Exhibit+ 6 for identification;
16 attached hereto.)

17 MR. METZGER: The Autonetics "Simplified
18 Industrial Hygiene Controls for Machining Metallic
19 Beryllium" will be Exhibit 7.

20 (A copy of the aforementioned
21 document, consisting of 17 pages, was
22 marked by the court reporter as
23 Plaintiffs' Exhibit+ 7 for identification;
24 attached hereto.)

25 MR. METZGER: The two-page document "At

1 Autonetics: An unrelenting war on hazards" will be
2 Exhibit 8.

3 (A copy of the aforementioned
4 document, consisting of two pages, was
5 marked by the court reporter as
6 Plaintiffs' Exhibit+ 8 for identification;
7 attached hereto.)

8 MR. METZGER: The pamphlet or brochure
9 entitled "A Few Facts About Beryllium" will be
10 Exhibit 9.

11 (A copy of the aforementioned
12 document, consisting of eight pages, was
13 marked by the court reporter as
14 Plaintiffs' Exhibit+ 9 for identification;
15 attached hereto.)

16 BY MR. METZGER:

17 Q. You have here the NIOSH criteria
18 document for beryllium. Correct?

19 A. Yes.

20 Q. And you have a sticky on page Roman
21 numeral VI-5. Correct?

22 A. Yes.

23 Q. Is that there for a reason?

24 A. It probably was put there for a
25 reason. Do you want me to read that and try to

1 reconstruct why I might have put that there or why
2 it was put there?

3 Q. Yes, please.

4 A. (Witness peruses document.)

5 Okay. It's there because it really
6 talks about that NIOSH says that after
7 consideration, some people have suggested that maybe
8 the 2 standard was not adequate; that they conclude
9 that it was developed in AEC in 1949, and it's still
10 a perfectly good standard, and that's what they're
11 recommending.

12 Q. Other than that, is there anything
13 else in this document that you're relying on for
14 your opinion?

15 A. Anything else?

16 MR. NOVA: Well, Dr. Rabinovitz, that's a
17 100-plus-page document. If you feel you need to
18 read it again, do that. Otherwise, answer his
19 question.

20 THE WITNESS: What is the question again?

21 BY MR. METZGER:

22 Q. Other than the information that you
23 just provided, is there any other information in
24 this document that you are relying on for either of
25 your two opinions in this case?

1 A. This document is here mainly to
2 support the adequacy of the 2 microgram per cubic
3 meter standard. I have read part of one page which
4 supports that, but there's other information in here
5 that's probably also useful in supporting it.
6 However, that one page sums it up.

7 Q. Are you relying on this document for
8 anything other than the proposition that the 2
9 microgram standard is adequate?

10 MR. NOVA: Objection; vague, overbroad.

11 THE WITNESS: Again, I have to go through
12 it. There may also be some things in there that
13 help suggest if anyone has claimed that Brush might
14 have attempted to conceal some information. There
15 might be some information to help this suggest that
16 that doesn't sound reasonable.

17 BY MR. METZGER:

18 Q. Do you have an opinion as to whether
19 Brush concealed any information?

20 A. When you are talking about concealing
21 information, perhaps we should be more specific
22 about what information you're talking about.

23 Q. All right. Do you have an opinion as
24 to whether Brush Wellman concealed any information
25 regarding the toxic hazards of beryllium from any of

1 its customers?

2 A. In everything I have looked at, I
3 don't see anything where they have attempted to
4 mislead anyone regarding the hazards of working with
5 beryllium.

6 Q. So it's your opinion that
7 Brush Wellman did not conceal anything about the
8 hazards of working with beryllium from anyone.
9 True?

10 A. Let's see. Did not conceal
11 anything -- you used the term "anything" -- that
12 would mislead? I forgot how you phrased it.

13 Q. The court reporter will read it back.

14 A. I'm trying to be specific.

15 Q. The court reporter will read it
16 back.

17 (Question read.)

18 THE WITNESS: That's true. They did not
19 conceal the hazards from working with beryllium from
20 anyone. I have seen no evidence of that.

21 BY MR. METZGER:

22 Q. Have you asked Mr. Nova or anyone
23 from Brush Wellman for the opportunity to review
24 their historical documents so that you could do a
25 full and complete evaluation as to their state of

1 knowledge and whether they concealed information?

2 A. I have reviewed many documents over
3 the last about five years and, again, have not come
4 across anything that suggests they were hiding
5 anything that would lead the occupational health
6 community to reach incorrect conclusions regarding
7 the hazards of working with beryllium.

8 Q. I appreciate what you said, but I
9 would like you to answer my question. I'll ask the
10 court reporter to read it back.

11 (Question read.)

12 MR. NOVA: You don't need to assume that you
13 did not answer his question.

14 THE WITNESS: Okay. They provided me -- I
15 mean Brush provided me with a wealth of information,
16 sufficient information that if they had not -- well,
17 it tells a story to the point where I was
18 comfortable that they couldn't have been withholding
19 anything because the material all complements and
20 fits in. And if the information they provided me
21 was real information, and they weren't making things
22 up, then there couldn't be anything else that would
23 be diametrically opposed to that. There just
24 couldn't be. It wouldn't fit with the pattern. I
25 had enough information to tell the story.

1 BY MR. METZGER:

2 Q. Okay. Once again, I understand your
3 statement, but I don't think you've actually
4 answered my question. My question was a specific
5 one, and I'll have the court reporter read it back.
6 I asked you a very specific question, which began
7 with "Did you ask." I'd like you to keep that in
8 mind so that when you hear the question, you
9 actually answer it.

10 MR. NOVA: Again, you do not need to assume
11 for one minute that you have not answered his
12 question. If you feel your answer answers the
13 question, then you can say so.

14 (Question reread.)

15 THE WITNESS: Yes.

16 BY MR. METZGER:

17 Q. When did you ask -- well, whom did
18 you ask?

19 A. I don't remember who specifically I
20 asked. As I mentioned, most of the information was
21 provided, but in a specific instance I can recall
22 asking that I wanted to talk to Dr. Preuss directly,
23 to interview him, to get more information.

24 Q. Did you interview Dr. Preuss?

25 A. Yes, I did.

1 Q. When was that?

2 A. I think about three years ago, in
3 that neighborhood.

4 Q. Did you interview any other
5 Brush Wellman or former Brush Wellman employees?

6 A. Yes.

7 Q. Who else?

8 A. Michael Kent, Marc Kolan. There
9 were personnel at both Elmore and in Tucson,
10 including Mr. Phil Wilson. That's what I can
11 remember right now.

12 Q. I was asking you if you asked
13 Mr. Nova or anyone from Brush Wellman for the
14 opportunity to review their historical documents,
15 not to interview people. And with that in mind, I'm
16 going to ask the question one more time.

17 Have you ever asked Mr. Nova or
18 anyone from Brush Wellman for an opportunity to
19 review the historical documents of Brush Wellman,
20 not as preselected and given to you, so that you
21 could make a full and complete evaluation of all of
22 the pertinent documents to determine whether
23 Brush Wellman concealed health hazards of beryllium?

24 A. Yes.

25 Q. Whom did you ask?

1 A. I believe Mr. Ubersax.

2 Q. Anyone else?

3 A. That's who I remember at the moment.

4 Q. When did you ask Mr. Ubersax that?

5 A. I'm specifically thinking of one

6 instance where I asked him. I wanted to review air

7 sampling data from the Elmore plant.

8 Q. Did you ask him to review anything

9 other than air sampling data from the Elmore plant?

10 A. That's all I can remember.

11 Q. Dr. Rabinovitz, I'm asking you a

12 specific question, which is: Have you ever asked

13 Mr. Nova or anyone from Brush Wellman or any other

14 attorneys representing Brush Wellman if you could

15 review all of their historical documents so that you

16 could have a complete information base upon which to

17 render an opinion whether Brush Wellman concealed

18 health hazard information regarding beryllium?

19 A. I think I already did answer your

20 question as yes because I asked for specific. What

21 I can't remember is if I ever said, "Is this

22 everything?" I don't remember if I asked that

23 specific question.

24 Q. Okay. And you were provided

25 historical documents?

1 A. Yes.

2 Q. Where are those?

3 A. In my office.

4 Q. Why aren't they here?

5 A. Because they are boxes and boxes.

6 It's almost a library now.

7 Q. But you intend to render an opinion
8 at trial in this case that Brush Wellman did not
9 conceal health hazard information from anyone?

10 A. I was asked to render an opinion
11 regarding whether they misled or whether they did
12 not provide adequate warnings. I wasn't asked to
13 talk about whether there was any document or a
14 conspiracy. I mean, I'm just talking about --
15 what I was asked to provide an opinion on was
16 whether they provided adequate information to
17 Rockwell or Mr. Gabaldon's employer to permit them
18 to have the ability to provide a safe working
19 environment, and I concluded that they did.

20 Q. Do you have an opinion as to whether
21 Brush Wellman concealed health hazard information
22 regarding beryllium from anyone?

23 A. Again, I told you that --

24 MR. NOVA: Objection; asked and answered.

25 BY MR. METZGER:

1 Q. Let me rephrase that. Is the opinion
2 that you have that Brush Wellman did not conceal
3 anything about the health hazards of beryllium from
4 anyone based in part on the documents that were
5 provided to you?

6 A. I would have to say that it goes back
7 to all those years, but my conclusions --

8 Q. I'm asking you: Was it based on the
9 documents that were provided to you? Yes or no?

10 MR. NOVA: He's not asking you about your
11 opinion, apparently, in this case. He wants to know
12 if you have some other opinions.

13 MR. METZGER: No.

14 Q. I'm asking you if your opinion that
15 Brush Wellman did not conceal any health hazard
16 information regarding beryllium is based in part on
17 the documents that were provided to you which you
18 have not brought here today.

19 A. If you're asking about a separate
20 issue other than what I've been asked to do in this
21 case --

22 Q. I'm asking you about what I just
23 asked you. Please answer it.

24 MR. NOVA: Knock it off, Mr. Metzger.

25 If you understand the question, you

1 can answer it. If you don't understand it, tell him
2 you don't understand it.

3 THE WITNESS: Okay. If your question is --
4 you're asking me in other work I've done with Brush
5 in terms of an evaluation of whether they have ever
6 attempted to hide information, I have relied in part
7 on other documents.

8 BY MR. METZGER:

9 Q. Okay. And are these documents which
10 you have in part relied upon documents which lead
11 you to have the opinion that Brush Wellman did not
12 conceal anything about the health hazards of
13 beryllium from anyone?

14 A. Again, as a general -- I think that's
15 the same question you just asked before.

16 Q. So your answer is "yes"?

17 A. It would be "yes." I believe you
18 asked the same question before.

19 MR. METZGER: Okay. I'd like to see those
20 documents, Mr. Nova -- I'm making a formal
21 request -- as soon as possible.

22 Q. All right. Have you ever been to the
23 Brush Wellman document repository?

24 A. No.

25 Q. Do you know that such a thing exists?

1 A. No.

2 Q. Have you heard of it?

3 A. No.

4 Q. As you sit here today, are you
5 unaware that Brush Wellman has collected in one
6 place literally hundreds of boxes of documents,
7 historical documents, which it makes available to
8 attorneys who represent people who have CBD and are
9 suing Brush Wellman for them to review?

10 A. I was not aware of it.

11 Q. And you have never gone through any
12 of those documents in that repository. Correct?

13 MR. NOVA: Objection; asked and answered.

14 THE WITNESS: I'm sure I have probably gone
15 through many of the documents that are in the
16 repository.

17 BY MR. METZGER:

18 Q. But you don't know?

19 A. I just said I'm sure I have.

20 Q. How do you know that?

21 A. Because you just told me that there
22 are all these documents that Brush has, and I've
23 been given many documents by Brush; so it seems
24 rather reasonable that if they've given me these
25 documents, they would have also put it in the

1 repository if you're telling me that Brush has all
2 these documents in the repository.

3 Q. Did it ever occur to you that it
4 might be possible that the documents that you were
5 provided by Brush Wellman's attorneys were
6 one-sided?

7 A. Yes. And that is why I gave the
8 response I gave earlier about having read enough
9 information that would permit me to draw my
10 conclusions, recognizing that they may not have
11 given me or there certainly may not be all the
12 documents available. As I told you before, I was
13 able to draw my conclusions because there was a
14 sufficient amount of information that if a document
15 came across that said something totally different
16 than what I was given, then something isn't right.

17 Q. Have Brush Wellman's attorneys told
18 you that a Federal judge has reviewed documents of
19 Brush Wellman and determined that a prima facie case
20 of fraud and concealment exists on the part of
21 Brush Wellman?

22 MR. NOVA: Objection; lacks foundation.

23 THE WITNESS: Number one, I don't even
24 understand all the terms you've used. I don't
25 recall being told of a judge's -- that doesn't sound

1 familiar to me.

2 BY MR. METZGER:

3 Q. Assuming at that a Federal judge has
4 determined that sufficient evidence has been
5 presented in a case to indicate fraud and
6 concealment, would you want to see the documents on
7 which that determination was based?

8 MR. NOVA: Objection; vague, lacks
9 foundation.

10 THE WITNESS: I mean, fraud and concealment
11 about what?

12 BY MR. METZGER:

13 Q. The health hazards of beryllium.

14 A. Okay. So you're saying this judge
15 has done an evaluation of what Brush has done and
16 was able to independently conclude from reading
17 materials that Brush hid pertinent information that
18 would be -- that was available that would result in
19 the scientific community not knowing about the
20 health hazards of beryllium?

21 Q. Exactly.

22 A. Exactly. If that were done, yes, I'd
23 be interested in seeing it.

24 MR. NOVA: Is it time for a lunch break?

25 MR. METZGER: Sure. Let's take a lunch

1 break. It's 1:00.

2 (Lunch recess at 1:00 p.m.)

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1 SATURDAY, OCTOBER 21, 2000, LONG BEACH, CALIFORNIA

2 AFTERNOON SESSION

3 2:05 P.M.

4 * * *

5

6 CONTINUED EXAMINATION +

7 BY MR. METZGER:

8 Q. Dr. Rabinovitz, did you take any
9 notes of your interviews of Otto Preuss?

10 A. Yes.

11 Q. Of Mr. Kent?

12 A. Yes.

13 Q. Of Mr. Kolan?

14 A. Yes.

15 Q. Of Mr. Wilson?

16 A. Yes.

17 Q. Of the other personnel at Elmore and
18 Tucson with whom you spoke?

19 A. That, I don't remember.

20 Q. Do you still have those notes?

21 A. As I've mentioned before, I have some
22 of them. I remember there's one I couldn't find. I
23 hope it's still in the pile of everything and I just
24 haven't found it. But at the moment I don't have
25 all of them, or I can't put my hands on all of them.

1 Q. Have you intentionally destroyed any
2 of those notes?

3 A. No.

4 Q. Will you agree to preserve all of
5 those notes until the conclusion of all of the
6 currently pending CBD cases?

7 MR. NOVA: You don't need to make any such
8 agreement. You're here to have your deposition
9 taken on something that has to do with this case.
10 Move on, Mr. Metzger.

11 BY MR. METZGER:

12 Q. Sir?

13 MR. NOVA: Move on, Mr. Metzger.

14 MR. METZGER: I'm asking the question.

15 Q. Will you agree to do that, sir?

16 THE WITNESS: Are you telling me not to
17 answer?

18 + MR. NOVA: Yes. You don't need to answer.
19 That's an issue for the attorneys and the judge.

20 BY MR. METZGER:

21 Q. Are you declining to answer, sir?

22 + A. Yes.

23 Q. Okay. With respect to your first
24 opinion, namely that Mr. Gabaldon's employers had
25 enough occupational safety and health sophistication

1 that they were entirely capable of knowing how to
2 provide a safe environment for Mr. Gabaldon to work
3 in, what are the documents on which you're basing
4 that opinion?

5 A. They are contained in here
6 (indicating). Do you want me to start going
7 through?

8 Q. They're all here on the table?

9 A. Yes.

10 Q. Are there any other documents on
11 which you're basing that opinion?

12 A. No.

13 Q. Is there any other information on
14 which you are basing that opinion?

15 A. There is some supplemental
16 information.

17 Q. What is that?

18 A. For example, I mentioned I reviewed
19 some medical questionnaires that Mr. Gabaldon filled
20 out. However, there's information in here
21 (indicating) that indicates that medical exams were
22 given in here and here (indicating).

23 Q. Is there any information other than
24 the fact that medical exams were provided?

25 A. There is some mention of calibration

1 of equipment and some ventilation measurements, but,
2 again, there's enough material in here (indicating)
3 talking about the sophistication of the industrial
4 hygienists that I did not have to rely on the other
5 material that's supplemental.

6 Q. Any other information on which you
7 are relying?

8 A. None that I can think of at this
9 time.

10 Q. Due to its bulk, I'm not going to
11 mark as an exhibit to your transcript the NIOSH
12 criteria document from '72.

13 There is this document here which I'm
14 handing you. Is this a document that you're relying
15 on in support of your opinion that Rockwell -- your
16 first opinion that we just discussed?

17 A. No.

18 Q. This document which you just
19 mentioned "No" will be Exhibit 10.

20 (A copy of the aforementioned
21 document, consisting of 41 pages, was
22 marked by the court reporter as
23 Plaintiffs' Exhibit+ 10 for identification;
24 attached hereto.)

25 BY MR. METZGER:

1 Q. What I've just marked as Exhibit 10
2 is the document which you identified that you're not
3 relying on for that opinion. True?

4 A. True.

5 Q. Are you relying on this document here
6 (indicating) for that opinion?

7 A. Yes.

8 Q. Okay. It's a three-page letter which
9 will be marked Exhibit 11. Correct?

10 A. Yes.

11 (A copy of the aforementioned
12 document, consisting of three pages, was
13 marked by the court reporter as
14 Plaintiffs' Exhibit+ 11 for identification;
15 attached hereto.)

16 BY MR. METZGER:

17 Q. All right. I'm marking this document
18 Exhibit 12.

19 (A copy of the aforementioned
20 document, consisting of 21 pages, was
21 marked by the court reporter as
22 Plaintiffs' Exhibit+ 12 for identification;
23 attached hereto.)

24 BY MR. METZGER:

25 Q. Are you relying on this document for

1 that opinion, a Cabot document?

2 A. Yes.

3 Q. Are you relying on this letter from
4 Howard Van Ordstrand for that opinion?

5 A. Yes.

6 MR. METZGER: The Dr. Van Ordstrand letter
7 will be Exhibit 13.

8 (A copy of the aforementioned
9 document, consisting of five pages, was
10 marked by the court reporter as
11 Plaintiffs' Exhibit+ 13 for identification;
12 attached hereto.)

13 MR. METZGER: I'm marking as Exhibit 14 this
14 "NIOSH Industrial Hygiene Walk-through Survey."

15 (A copy of the aforementioned
16 document, consisting of 24 pages, was
17 marked by the court reporter as
18 Plaintiffs' Exhibit+ 14 for identification;
19 attached hereto.)

20 BY MR. METZGER:

21 Q. Are you relying on that document for
22 your opinion?

23 A. Yes.

24 Q. Are you relying on what I'm marking
25 as Exhibit 15, a "General Process Specification"?

1 A. Yes.

2 (A copy of the aforementioned
3 document, consisting of ten pages, was
4 marked by the court reporter as
5 Plaintiffs' Exhibit+ 15 for identification;
6 attached hereto.)

7 BY MR. METZGER:

8 Q. All of this is for your first
9 opinion. Correct?

10 A. In part. I mean, some of the
11 material might be used for other things, too.

12 Q. Right. But all of these documents
13 which you've identified that you're relying upon for
14 the opinion is regarding your opinion regarding
15 Rockwell's sophistication. Correct?

16 A. Yes.

17 (A copy of the aforementioned
18 document, consisting of 21 pages, was
19 marked by the court reporter as
20 Plaintiffs' Exhibit+ 16 for identification;
21 attached hereto.)

22 BY MR. METZGER:

23 Q. Are you relying on Exhibit 16 for
24 that opinion?

25 A. Yes.

1 Q. Exhibit 16 is a script for the
2 hearing impaired.

3 (A copy of the aforementioned
4 document, consisting of 12 pages, was
5 marked by the court reporter as
6 Plaintiffs' Exhibit+ 17 for identification;
7 attached hereto.)

8 BY MR. METZGER:

9 Q. Are you relying on these "Health &
10 Safety Aspects of Beryllium, Training Session
11 Attendance" documents, which are collectively marked
12 as Exhibit 17?

13 A. Yes.

14 Q. Are you relying on this Brush Wellman
15 material safety data sheet for that opinion?

16 A. Yes.

17 MR. METZGER: That's Exhibit 18.

18 (A copy of the aforementioned
19 document, consisting of three pages, was
20 marked by the court reporter as
21 Plaintiffs' Exhibit+ 18 for identification;
22 attached hereto.)

23 (A copy of the aforementioned
24 document, consisting of two pages, was
25 marked by the court reporter as

1 Plaintiffs' Exhibit+ 19 for identification;
2 attached hereto.)

3 BY MR. METZGER:

4 Q. Are you relying on this Brush Wellman
5 letter, which I've marked as Exhibit 19, for that
6 opinion?

7 A. Yes.

8 (A copy of the aforementioned
9 document, consisting of one page, was
10 marked by the court reporter as
11 Plaintiffs' Exhibit+ 20 for identification;
12 attached hereto.)

13 BY MR. METZGER:

14 Q. Are you relying on this Brush Wellman
15 letter marked as Exhibit 20 for that opinion?

16 A. Yes.

17 (A copy of the aforementioned
18 document, consisting of eight pages, was
19 marked by the court reporter as
20 Plaintiffs' Exhibit+ 21 for identification;
21 attached hereto.)

22 BY MR. METZGER:

23 Q. Are you relying on this exhibit
24 marked 21, "Health Effects of Beryllium and its
25 Components" for that opinion?

1 A. No.

2 (A copy of the aforementioned
3 document, consisting of three pages, was
4 marked by the court reporter as
5 Plaintiffs' Exhibit+ 22 for identification;
6 attached hereto.)

7 BY MR. METZGER:

8 Q. Okay. Are you relying on this letter
9 from Mark Axelrod to Brush Wellman, Exhibit 22, for
10 your opinion?

11 A. Yes.

12 (A copy of the aforementioned
13 document, consisting of one page, was
14 marked by the court reporter as
15 Plaintiffs' Exhibit+ 23 for identification;
16 attached hereto.)

17 BY MR. METZGER:

18 Q. Are you relying on this letter dated
19 March 12, 1987, from Brush Wellman, Exhibit 23, for
20 that opinion?

21 A. Yes.

22 (A copy of the aforementioned
23 document, consisting of five pages, was
24 marked by the court reporter as
25 Plaintiffs' Exhibit+ 24 for identification;

1 attached hereto.)

2 BY MR. METZGER:

3 Q. Are you relying on these labels
4 collectively marked as Exhibit 24 for that opinion?

5 A. Yes.

6 (A copy of the aforementioned
7 document, consisting of 12 pages, was
8 marked by the court reporter as
9 Plaintiffs' Exhibit+ 25 for identification;
10 attached hereto.)

11 BY MR. METZGER:

12 Q. Are you relying on these air sampling
13 data reports, which are Exhibit 25, for that
14 opinion?

15 A. Yes.

16 (A copy of the aforementioned
17 document, consisting of nine pages, was
18 marked by the court reporter as
19 Plaintiffs' Exhibit+ 26 for identification;
20 attached hereto.)

21 BY MR. METZGER:

22 Q. Are you relying on this excerpt from
23 the "ATSDR Toxicological Profile for Beryllium,"
24 Exhibit 26, for that opinion?

25 A. No.

1 (A copy of the aforementioned
2 document, consisting of four pages, was
3 marked by the court reporter as
4 Plaintiffs' Exhibit+ 27 for identification;
5 attached hereto.)

6 BY MR. METZGER:

7 Q. Are you relying on this document,
8 Exhibit 27, titled "Statement of Current Knowledge
9 of Chronic Beryllium Disease" for that opinion?

10 A. No.

11 (A copy of the aforementioned
12 document, consisting of 18 pages, was
13 marked by the court reporter as
14 Plaintiffs' Exhibit+ 28 for identification;
15 attached hereto.)

16 BY MR. METZGER:

17 Q. Are you relying on this document,
18 Exhibit 28, entitled "Government Responses to
19 Beryllium Uses and Risks" for that opinion?

20 A. No.

21 Q. Are you relying on the NIOSH criteria
22 document for that opinion?

23 A. No.

24 Q. Are there any other documents that
25 you're relying on for that opinion?

1 A. Those were the documents that I'm
2 relying on for the opinion in conjunction with my
3 general knowledge, education as a certified
4 industrial hygienist and toxicologist.

5 Q. Are there any other documents that
6 you're relying on for that opinion?

7 A. Again, to the extent -- I'm not
8 sure. I am using my general knowledge as a
9 certified industrial hygienist and toxicologist,
10 which I've accumulated through practice and from
11 reviewing or looking at many documents over the
12 years.

13 Q. I understand that. Are you relying
14 on any other documents for that opinion?

15 A. No, subject to my statement that I am
16 using my general knowledge.

17 Q. Would you tell me what, in your
18 opinion, Mr. Gabaldon's employers had to do to
19 provide him a safe work environment.

20 A. I think -- do you want to narrow this
21 down to working with beryllium products?

22 Q. Yes.

23 A. Okay. So you're asking me what did
24 his employer -- what was his responsibility
25 regarding Mr. Gabaldon's employment in working with

1 beryllium products.

2 Q. No. That's not at all what I'm
3 asking you. I'm not asking you what the
4 responsibility is because the responsibility is a
5 legal question.

6 I'm asking you: What, in your
7 opinion, did Rockwell have to do to provide
8 Mr. Gabaldon a safe environment for him to work with
9 beryllium?

10 A. Okay. What they would have to do is
11 to provide him a work environment where he would not
12 be exposed to levels of beryllium based on the
13 knowledge of the adverse health effects of
14 beryllium, which would cause him to become ill from
15 excessive exposure to beryllium.

16 Q. And what, in your opinion, were they
17 to have done to accomplish that goal?

18 A. They would need to be knowledgeable
19 or find out what the recognized limits were for
20 exposure to beryllium, and then to ensure that the
21 operations would -- he would be able to conduct his
22 operations without having excessive exposure.

23 Q. What do you mean by "excessive
24 exposure"?

25 A. Based on the whole working lifetime

1 of Mr. Gabaldon at Rockwell, that limit was and is
2 2 micrograms per cubic meter.

3 Q. So other than complying with the
4 2 microgram per cubic meter standard, is there
5 anything, in your opinion, that Rockwell had to do
6 to provide Mr. Gabaldon a safe workplace in which to
7 work with beryllium?

8 A. Since we're limiting ourselves to --
9 I believe your question is limited to prevent --
10 what did Rockwell have to do to prevent him from
11 being exposed to what would be considered an
12 excessive level of beryllium, which was 2 micrograms
13 per cubic meter, I believe that was the standard,
14 recognizing levels at that or below, and for many
15 years it was thought that that was too protective,
16 that's what they had to do.

17 Q. That is not at all the what I asked
18 you. Other than complying with the 2 microgram per
19 cubic meter standard, what did Rockwell, in your
20 opinion, have to do to provide Mr. Gabaldon a
21 workplace in which he would not contract chronic
22 beryllium disease?

23 MR. NOVA: That's a different question, now,
24 from the last one.

25 THE WITNESS: Unless this is a trick

1 question, it sounds like if they were preventing him
2 from being exposed to a level that would cause
3 chronic beryllium disease, then he wouldn't get
4 chronic beryllium disease; so I think that's all
5 they had to do.

6 BY MR. METZGER:

7 Q. And what is the level at which
8 Mr. Gabaldon could not get chronic beryllium
9 disease?

10 A. Well, the occupational health
11 standard, the occupational health community which
12 had evaluated the hazards of beryllium, set forth
13 the standard of 2 micrograms per cubic meter, which
14 was indicated that if exposures were kept below
15 that, employees would not get CBD.

16 Q. I'm well aware of, that. But my
17 question to you is different, and I'll ask the court
18 reporter to read it back.

19 (Question read.)

20 MR. NOVA: Asked and answered. You already
21 answered that question.

22 THE WITNESS: I think I did answer it.

23 BY MR. METZGER:

24 Q. Okay. Is it your opinion that
25 chronic beryllium disease cannot occur in any

1 exposed person below the 2 microgram standard?

2 A. I believe from everything I have read
3 and evaluated, that there is no proof that anyone
4 exposed to less than 2 micrograms per cubic meter
5 can get chronic beryllium disease, yes.

6 Q. Do you believe that there is proof
7 that exposure below 2 micrograms per cubic meter
8 cannot cause chronic beryllium disease?

9 A. Yes.

10 Q. Okay. Are you aware that there were
11 12 secretaries in Brush Wellman plants who got
12 chronic beryllium disease?

13 A. I don't know the number. I do know
14 that there have been cases among some Brush
15 employees who were not production operation
16 employees who did get CBD.

17 Q. Is it your opinion that each of those
18 nonproduction employees, including secretaries, got
19 CBD at exposures in excess of 2 micrograms per cubic
20 meter?

21 A. At this time, based on my analysis,
22 there is no proof that they were never exposed above
23 2. In fact, based on my analysis, I believe there
24 is reason to believe that they were at times exposed
25 above 2.

1 Q. But do you have any proof that they
2 were exposed above 2?

3 A. Again, my analysis, which looks at a
4 lot of data in the plant and talks about exposures
5 that occur, especially from accidents and different
6 situations, that I think it can be shown that it is
7 very difficult in a facility like Elmore to always
8 control exposures below 2. And since all of these
9 nonproduction people did go into certain production
10 areas or by production areas, that it's likely over
11 the years that they were exposed over 2 at some
12 point in time.

13 Q. You're referring to your analysis.
14 What analysis is that?

15 A. Analysis of looking at air sampling
16 data from the Brush Wellman Elmore plant.

17 Q. Is this an analysis that you've
18 written up?

19 A. No.

20 Q. What is the data that you're
21 referring to?

22 A. Air sampling data from
23 Brush Wellman.

24 Q. And would you produce that, please.

25 MR. NOVA: In response to what request?

1 BY MR. METZGER:

2 Q. Do you have that here today?

3 A. No.

4 Q. Have you compiled this data?

5 A. I have compiled it just looking at
6 it, but I haven't written it down.

7 Q. Is it on computer?

8 A. No.

9 Q. As you sit here today, are you aware
10 of any documents which show that any of these
11 secretaries or other nonproduction employees were
12 actually exposed above 2 micrograms per cubic meter?

13 A. I think I just talked to you about
14 what information I have and how I concluded that
15 they likely were.

16 Q. My question is different, though. Do
17 you have any air sampling data, any personal
18 breathing zone monitoring data, for any of these
19 nonproduction employees who contracted CBD?

20 A. No. I have not seen any breathing
21 zone sampling results on these employees at levels
22 above the limit.

23 Q. Have you seen any personal breathing
24 zone samples on them at all?

25 A. I don't remember now if I saw any

1 personal sampling data on nonproduction personnel,
2 but I may have.

3 Q. Have you seen any area sampling
4 monitoring for areas in which any of these
5 nonproduction employees who contracted CBD worked?

6 A. I believe that there is lunchroom
7 exposure data and that these people would have
8 been -- there is a chance they were in that
9 lunchroom.

10 Q. And did the lunch room exposure data
11 that you reviewed show air levels in excess of 2
12 micrograms per cubic meter?

13 A. Offhand, I don't remember seeing any
14 lunchroom data that was in excess of 2.

15 Q. Okay. Is there any sampling
16 documentation for any of these nonproduction
17 employees that actually reported an exposure to them
18 on an eight-hour time-weighted average in excess of
19 2 micrograms per cubic meter?

20 A. I already said I didn't see any full
21 shift breathing zone samples taken of these
22 employees.

23 Q. You are aware that housewives of
24 beryllium workers have contracted chronic beryllium
25 disease. True?

1 A. I believe there are some records that
2 there are people who have not worked even in the
3 plant have contracted CBD. I believe there is some
4 information suggesting that beryllium may have been
5 taken home on clothing and washed, or there still
6 may have been some contact with beryllium by these
7 people.

8 Q. My question was: Are you aware that
9 wives, spouses, of beryllium workers have contracted
10 CBD?

11 A. I believe I have heard that, yes.

12 Q. And whom did you hear that from?

13 A. Offhand, I can't remember exactly
14 where I read that or saw it.

15 Q. Do you have any personal breathing
16 zone or area sampling or any monitoring data of any
17 of the wives of beryllium workers who contracted
18 CBD?

19 A. Do I have any sampling data?

20 Q. Have you seen any?

21 A. I haven't.

22 Q. Have you seen any data which reports
23 that any of these wives of beryllium workers were
24 exposed to beryllium above 2 micrograms per cubic
25 meter on an eight-hour time-weighted average?

1 A. I have not seen a report that
2 documents exposures over 2 through actual testing.

3 Q. Okay. Have you done any such testing
4 yourself?

5 A. No, I have not.

6 Q. Are you aware that children of
7 beryllium workers have also contracted chronic
8 beryllium disease?

9 A. I don't remember.

10 Q. Have you seen any monitoring data of
11 any children of beryllium workers which reports
12 exposures to them in excess of 2 micrograms per
13 cubic meter?

14 A. I haven't seen that data.

15 Q. Is it your belief or opinion that the
16 spouses of beryllium workers who contracted chronic
17 beryllium disease probably did so because those
18 spouses washed their husbands' clothes?

19 A. That is one source of exposure.

20 Q. Is that, in your opinion, the
21 greatest source of exposure that spouses of
22 beryllium workers would have?

23 A. I don't know. There may have been
24 other mechanisms of exposure.

25 Q. Can you think of any other mechanisms

1 of exposure for spouses of beryllium workers that
2 would result in any greater exposure than washing
3 the clothes of beryllium workers?

4 A. Perhaps if there were beryllium on
5 the shoes of the employee, and he got it in the car,
6 and then the wife drove the car and stepped on the
7 carpeting and disturbed it, that's one possibility.

8 Q. Is it your opinion that such an
9 exposure would exceed that from washing a beryllium
10 worker's clothes?

11 A. I have not made an evaluation to
12 attempt to determine the potential exposure from
13 washing clothes versus riding or driving in a
14 contaminated -- a beryllium-contaminated vehicle.

15 Q. Is it your belief that driving in a
16 beryllium-contaminated vehicle would expose an
17 occupant of the vehicle in excess of the 2 microgram
18 standard on an eight-hour time-weighted average?

19 A. Again, I have not made an evaluation,
20 but such a situation is possible.

21 Q. Has Brush Wellman ever warned anyone
22 that they could get chronic beryllium disease from
23 riding in a vehicle which a beryllium worker had
24 occupied?

25 A. I have not seen a written -- anything

1 specifically written from Brush advising of that
2 theoretical potential exposure.

3 Q. Have you seen anything from
4 Brush Wellman advising any of its employees or any
5 of its customers' employees that their spouses could
6 get chronic beryllium disease?

7 A. Brush Wellman literature specifically
8 talks about degrees of cleanliness that are
9 necessary to prevent exposure.

10 Q. My question was specific. Have you
11 seen any document from Brush Wellman warning its
12 employees that their spouses could contract chronic
13 beryllium disease if they brought beryllium home on
14 their clothing?

15 A. I have not seen that specific
16 statement. Again, Brush warned to prevent such an
17 occurrence from happening.

18 Q. Have you ever seen any documents from
19 Brush Wellman warning its customers' employees that
20 their spouses could contract chronic beryllium
21 disease if they brought beryllium home on their
22 clothing?

23 A. No.

24 Q. It is your opinion that Brush Wellman
25 is aware of this hazard. True?

1 MR. NOVA: Objection; vague.

2 THE WITNESS: Again, Brush Wellman was and
3 is aware of the fact that good hygiene principles
4 are required, and they've specifically trained their
5 employees to reduce exposures that might be caused
6 from contaminated clothing and shoes; so they have
7 specifically specific procedures and warnings for
8 guiding personal hygiene.

9 BY MR. METZGER:

10 Q. I appreciate that, Doctor, but that's
11 not at all what I asked you. Is it your opinion --

12 MR. NOVA: Move to strike as not a question.

13 BY MR. METZGER:

14 Q. Is it your opinion that Brush Wellman
15 is aware of the hazard of employees' spouses
16 contracting chronic beryllium disease from domestic
17 contamination of beryllium?

18 A. Brush is aware that if you're exposed
19 in excess of 2, there is a possibility of getting
20 CBD.

21 Q. Once again, that's not what I've
22 asked you. My question is: Is it your opinion that
23 Brush Wellman is aware of the specific hazard of
24 employees' spouses contracting chronic beryllium
25 disease from domestic contamination of beryllium?

1 A. It's my opinion that Brush --

2 MR. NOVA: He's not asking for an opinion.

3 Do you need to hear the question back? It sounds
4 like a "yes" or "no" question.

5 THE WITNESS: Okay. Could I hear the
6 question again?

7 MR. METZGER: Certainly. The court reporter
8 will read it.

9 (Question read.)

10 MR. NOVA: Sorry. He is asking for an
11 opinion.

12 THE WITNESS: It's my opinion that Brush
13 knew that if sufficient contamination occurred such
14 that the material could be taken off site against
15 all of Brush's procedures and warnings that could
16 result in someone else being exposed at levels
17 exceeding 2 micrograms per cubic meter, that there
18 was a possibility they could contract CBD.

19 BY MR. METZGER:

20 Q. That's getting closer, but my
21 specific question was: Is it your opinion that
22 Brush Wellman was aware that its employees' spouses
23 were at risk of developing chronic beryllium disease
24 if beryllium was transported on the clothing of
25 Brush Wellman's employees to their homes?

1 A. I think I answered the question.

2 Q. Were they aware of that? Yes or no?

3 A. I just answered that question. I
4 told you. What I said was --

5 Q. I know what you said.

6 MR. NOVA: Are you just going to argue with
7 him now, or are you going to let him finish his
8 answers?

9 THE WITNESS: I was going it to say the
10 same answer. I think I've answered your question.

11 BY MR. METZGER:

12 Q. I would like you to answer the
13 question "yes" or "no" and give an explanation,
14 which I'm entitled to.

15 MR. NOVA: You're not obligated to answer a
16 question "yes" or "no." You answer the question any
17 way you see fit, Dr. Rabinovitz.

18 MR. METZGER: Please read the question
19 back.

20 (Question read.)

21 THE WITNESS: I answered your question.

22 BY MR. METZGER:

23 Q. Yes or no?

24 MR. NOVA: He already answered your
25 question. Argumentative.

1 THE WITNESS: I answered --

2 MR. NOVA: You don't need to say anything

3 more. The question is argumentative.

4 BY MR. METZGER:

5 Q. Dr. Rabinovitz, was Brush Wellman

6 aware of that or not?

7 + MR. NOVA: Argumentative. You don't need to

8 answer. You've already answered the question.

9 MR. METZGER: Mr. Nova, you have no

10 authority to instruct an expert not to answer a

11 question.

12 Q. I insist that you answer it, sir.

13 MR. NOVA: Should we terminate the

14 deposition right now?

15 MR. METZGER: If you want to terminate the

16 deposition, that is your choice. I'm not finished.

17 MR. NOVA: The witness is not answering the

18 question. It's argumentative. He's already

19 answered the question.

20 BY MR. METZGER:

21 Q. Are you refusing to answer the

22 question, Dr. Rabinovitz?

23 + A. I answered the question.

24 Q. We'll have a judge determine that.

25 Mark that, please.

1 MR. NOVA: Move to strike as not a
2 question.

3 BY MR. METZGER:

4 Q. You are aware, are you not, that
5 residents of the community of Lorain, Ohio, living
6 within three-quarters of a mile of the Lorain, Ohio,
7 Brush Wellman plant contracted chronic beryllium
8 disease. True?

9 A. I am aware that residents --

10 MR. NOVA: Dr. Rabinovitz, the question is:
11 Are you aware? True? Do you understand that? Do
12 you need to hear it back?

13 THE WITNESS: My understanding of the
14 question is am I aware that there are some residents
15 living in Lorain, Ohio, within a three-quarter-mile
16 radius of the plant who did contract CBD, and the
17 answer is yes.

18 BY MR. METZGER:

19 Q. Okay. And are you aware that
20 Merrill Eisenbud concluded that among these
21 residents, there were residents who contracted the
22 disease from ambient air exposures rather than
23 domestic transport?

24 A. I am aware in his evaluation he may
25 not have fully comprehended all the exposures and

1 the way the exposures may have occurred and
2 attempted to correlate ambient air sampling levels
3 to locations of where people got CBD.

4 MR. METZGER: Can I have the question and
5 the answer read back.

6 (Record read.)

7 BY MR. METZGER:

8 Q. All right. I'm not asking you for
9 your opinion of his -- your critique of his study.
10 I'm simply asking you: Are you aware that
11 Dr. Eisenbud concluded that some of these residents
12 contracted CBD from ambient air exposure as opposed
13 to domestic transport?

14 A. Yes, I think he did do that.

15 Q. And do you disagree with his
16 conclusion?

17 A. Yes.

18 Q. Have you undertaken any independent
19 studies yourself to disprove Dr. Eisenbud's
20 conclusion?

21 A. I have read his evaluation and came
22 to the conclusion that he may not have considered
23 all the factors that were involved, and this is
24 substantiated in other documents such as the NIOSH
25 criteria document.

1 Q. My question is: Did you yourself
2 conduct any independent studies to refute
3 Dr. Eisenbud's conclusion?

4 A. If you're talking about did I
5 conduct -- did I contaminate an ambient environment
6 with different levels of beryllium and then attempt
7 to measure incidence of disease, no.

8 Q. Okay. Did you do any other
9 independent studies?

10 A. My independent study was an
11 evaluation of his work.

12 Q. Did you do anything other than
13 evaluating Dr. Eisenbud's work in reaching a
14 contrary conclusion?

15 A. If you're talking about did I do any
16 independent epidemiology or air sampling studies,
17 no, I did not.

18 Q. Did you do any other experimental
19 studies?

20 A. No.

21 Q. Did you interview any of the
22 residents?

23 A. You mean the people who lived in the
24 area around the plant, did I go and interview them?

25 Q. Yes.

1 A. No, I did not.

2 Q. Did you take chest X-rays of any of
3 them?

4 A. No. I did not go out and take chest
5 X-rays.

6 Q. Have you ever monitored beryllium
7 levels in the vicinity of any beryllium plant?

8 A. No, I have not.

9 Q. Do you have any documentary proof
10 that any of the residents who lived within
11 three-quarters of a mile of the Lorain, Ohio, plant
12 who developed chronic beryllium disease did not
13 contract that disease from ambient exposure?

14 A. There were other people who have done
15 evaluations to identify that there might be some
16 contact exposure, and I don't at the moment have
17 those references, but I know I have seen them.

18 Q. And are you relying on those
19 references for your opinions in this case?

20 A. I am relying on other materials that
21 I have read that went into an evaluation of the
22 neighborhood cases.

23 Q. What materials?

24 A. As I mentioned, offhand I don't
25 remember them.

1 Q. But you have them?

2 A. Yes. I've read it.

3 Q. They're at home?

4 A. They're there someplace, yes.

5 Q. You haven't brought them today?

6 A. No, I haven't.

7 Q. Okay. What medical studies are you

8 relying on for your opinion that beryllium cannot

9 cause chronic beryllium disease at exposures less

10 than 2 micrograms per cubic meter on an eight-hour

11 time-weighted-average basis?

12 A. One is the NIOSH criteria document.

13 Q. Excuse me for interrupting. By

14 "medical study," I don't mean a reviewed document.

15 I mean a primary source document.

16 MR. NOVA: Do you understand the question?

17 THE WITNESS: Rather than someone who's

18 reviewed other. So this would have to be an

19 original epidemiology study?

20 BY MR. METZGER:

21 Q. An epidemiologic study, a case

22 report, some experimental study, something merely

23 which is more than just reviewing other people's

24 work.

25 A. Well, all of it is reviewing what

1 other people have done. I mean, I've done no
2 independent verification.

3 Q. I realize that. What I'm asking you
4 is: What original or primary studies are you
5 relying on which, in your opinion, prove that
6 chronic beryllium disease cannot occur in anyone
7 below 2 micrograms per cubic meter?

8 A. There is the Brush -- let's see.
9 When the standard was implemented at Brush and after
10 the Lorain fire, and they rebuilt, in fact it was
11 after Elmore had come into being and after some
12 initial work where they were able to start achieving
13 the compliance with the 2 microgram per cubic meter,
14 they had an approximate 20-year history of not
15 seeing any CBD cases.

16 In the Rockwell facility itself where
17 Mr. Gabaldon worked, where exposures were controlled
18 below 2, they did not see any CBD cases.

19 In Cardiff, where they carefully
20 controlled exposures to below the limit, they did
21 not see CBD cases. So there are primary studies and
22 experience by plant populations which showed that
23 where they were essentially either coming close to
24 achieving the limit or actually achieving the limit,
25 they did not see CBD.

1 In addition, there was a panel of
2 scientists that was gathered after the AEC set the
3 limit who reviewed the data from year to year to see
4 if that standard was protective. They concluded not
5 only -- that it was not only protective but likely
6 excessively low. And so there is that history that
7 shows that the 2 standard was protective, and
8 there's been no data that I have seen to show where
9 people have gotten CBD at levels below 2.

10 Q. Are you aware of any data postdating
11 this 20-year history that you've described which
12 casts doubt upon the absence of disease during that
13 period?

14 A. If we're talking about the 20-year
15 history at the Brush Wellman facility, subsequent to
16 that time period, there were some cases of CBD that
17 developed. And by the way, during that 20-year
18 period, there were a few CBD cases among employees
19 who were employed after 1960, but a review showed
20 that they were clearly exposed well above the 2
21 standard through accidents, or through some other
22 evaluation they showed that they were exposed above
23 2.

24 Q. Have you seen that document?

25 MR. NOVA: Are you finished with your

1 answer?

2 THE WITNESS: That was to finish my last
3 answer, that I think they had said there was a
4 20-year history with no CBD cases, and I wanted to
5 correct that.

6 BY MR. METZGER:

7 Q. All right.

8 A. Then there was a subsequent question
9 asking about am I aware that there were CBD cases
10 following that 20-year period, other than the few
11 CBD cases where there was explained overexposure
12 that there were some additional cases, and the
13 answer is yes, but a review of those cases also
14 shows a likelihood of exposure over 2.

15 Q. This review that you're referring to,
16 have you seen the documentation for that review?

17 A. I have seen some documentation, yes.

18 Q. Have you seen any air sampling data,
19 personal breathing zone data, for any of these
20 workers who developed chronic beryllium disease
21 during this 20-year period of little disease?

22 A. Are you asking did I see
23 documentation of what again?

24 Q. You mentioned that there was an
25 approximately 20-year period where there were a few

1 cases of chronic beryllium disease in Brush Wellman
2 plants. Correct?

3 A. Correct.

4 Q. Have you seen any personal breathing
5 zone data for any of those workers who did get
6 chronic beryllium disease during this period?

7 A. No. These people had accidental high
8 exposures, and so it wouldn't have been possible to
9 measure. In one case I believe there was -- I
10 forget exactly what the situation was, but it was a
11 very high exposure.

12 Q. You've answered my question. Have
13 you seen any personal breathing zone data for any
14 Brush Wellman employee who has contracted chronic
15 beryllium disease?

16 A. I have seen a -- Phil Wilson did a
17 review of CBD cases and identified some exposure
18 patterns. I have seen that.

19 Q. That's not what I asked you, though.
20 Have you seen any personal breathing zone data for
21 any Brush Wellman employee who contracted chronic
22 beryllium disease?

23 A. I may have. I've looked at a lot of
24 Brush Wellman exposure monitoring data. I don't
25 remember if I've seen data specific to some of these

1 employees.

2 Q. Well, you've rendered an opinion
3 today, Dr. Rabinovitz, that chronic beryllium
4 disease cannot occur below 2 micrograms. Can you
5 identify any sampling data for any person who has
6 contracted chronic beryllium disease where the data
7 shows that person was exposed in excess of 2
8 micrograms?

9 A. I would have to review the analyses
10 done on these people, whether there was specific air
11 sampling data of these employees showing excessive
12 exposures or whether an evaluation of their
13 situations would identify excessive exposures or
14 whether there were accidental exposures that could
15 not have been measured but would show excessive
16 exposures. So at this point I can't tell you
17 exactly whether there was specific air sampling data
18 on each employee. I know there were evaluations
19 done.

20 Q. Okay. Are you aware of any original
21 medical studies, epidemiologic studies or case
22 reports, in which the authors asserted that the
23 worker or workers contracted chronic beryllium
24 disease below the 2 microgram standard?

25 A. There are some articles looking at

1 some data patterns suggesting that that may be true.

2 Q. I'm not asking you about
3 suggestions. I'm asking you: Have you read any
4 case reports or epidemiologic studies in which the
5 authors asserted that the worker or workers
6 contracted chronic beryllium disease below 2
7 micrograms?

8 A. I'm aware that there are articles
9 that have been written. To be honest, without
10 refreshing myself, I don't remember the degree of
11 certainty they put into their conclusions regarding
12 the possibility of contracting CBD below 2
13 micrograms.

14 Q. Okay. Would you please identify all
15 case reports or epidemiologic studies that you are
16 aware of in which the authors have either asserted
17 that the workers contracted chronic beryllium
18 disease below the standard or suggested such?

19 A. You want me to give you the names?

20 Q. Yes.

21 A. Kay Kreiss and I think Lee Newman.

22 Q. Any others?

23 A. That's what I can think of at the
24 moment.

25 Q. What Kay Kreiss article?

1 A. I don't remember the name of it.

2 Q. Do you have it?

3 A. Yes, I do have it.

4 Q. At home?

5 A. Yes.

6 Q. You haven't brought it with you

7 today?

8 A. No.

9 Q. One Kay Kreiss article?

10 A. I don't know. I have to look through

11 my file and see.

12 Q. And what is the Lee Newman article?

13 A. I don't remember the name of it.

14 Q. Are there any other articles that you

15 are aware of that fall into this category?

16 A. Again, I'd have to review my file to

17 refresh my memory.

18 Q. Are you familiar with the current

19 prevalence data for any of the Brush Wellman plants?

20 A. You're asking me about regarding the

21 incidence of CBD at the plant?

22 Q. Well, I believe it's actually

23 prevalence data rather than incidence data. But are

24 you aware of any data, be it prevalence or incidence

25 data, regarding CBD at Brush Wellman plants?

1 A. At the moment, I haven't seen the
2 latest data that they have.

3 Q. Have you seen any incidence or
4 prevalence data of Brush Wellman for CBD at any of
5 its plants?

6 A. At any time?

7 Q. Any time within the last decade.

8 A. I may have. I don't remember now.

9 Q. Is it your belief that during of the
10 last decade Brush Wellman has violated the standard
11 at every one of its plants?

12 MR. NOVA: Objection; vague.

13 THE WITNESS: I have only looked at data
14 from two plants, Tucson and Elmore. And you are
15 asking me have employees at those plants in the last
16 decade been exposed -- some employees at some times
17 been exposed to TWAs over 2? The answer is yes.

18 BY MR. METZGER:

19 Q. Which employees?

20 A. I don't know their names.

21 Q. Have you seen personal breathing zone
22 data for these two employees?

23 A. Which two employees?

24 Q. I'm sorry. How many employees were
25 exposed in excess of 2 micrograms?

1 A. I didn't calculate a number.

2 Q. Calculate?

3 MR. NOVA: Wait for a question.

4 BY MR. METZGER:

5 Q. Okay. For how many Brush Wellman
6 employees have you seen personal breathing zone data
7 documenting an exposure in excess of 2 micrograms?

8 A. I don't know the number.

9 Q. Do you know that you've actually seen
10 a personal breathing zone sample for a Brush Wellman
11 employee documenting an exposure in excess of 2
12 micrograms?

13 A. Yes.

14 Q. Can you estimate for me the number of
15 such records you've seen?

16 A. No. You mean all records that I've
17 seen?

18 Q. Not all records. I'm asking you the
19 number of personal breathing zone sample records
20 that you have seen which report an eight-hour
21 time-weighted-average exposure in excess of 2
22 micrograms.

23 A. I don't know that number.

24 Q. But you believe you have seen some
25 such records?

1 A. I know I've seen such records.

2 Q. Which actually report --

3 MR. NOVA: Object. Go ahead, and then I'll
4 object.

5 BY MR. METZGER:

6 Q. Which actually report an exposure
7 above 2 micrograms in the personal breathing zone of
8 a worker who was sampled for eight hours or more?

9 A. Yes.

10 Q. What Rockwell facility are you aware
11 of which has had no chronic beryllium disease?

12 A. Mr. Gabaldon's employer. My
13 understanding is that for those employees hired -- I
14 don't remember the exact time period. But after
15 some time in the early '60s or mid '60s -- I'm not
16 sure of the exact time frame -- that they haven't
17 had any CBD cases up until -- yeah.

18 Q. Up until what?

19 A. I was going to say that
20 Mr. Gabaldon's case was identified very fairly
21 recently, but he was actually an employee who was
22 hired in the late '50s.

23 Q. Does this lead you to believe that
24 Rockwell has implemented a superior industrial
25 hygiene program for beryllium workers that is

1 superior to Brush Wellman's?

2 A. It is like comparing apples to
3 oranges to compare Brush Wellman's activities with
4 beryllium with Rockwell's activities with beryllium.

5 Q. Is it your opinion that Rockwell has
6 achieved a better occupational health record for
7 chronic beryllium disease than Brush Wellman?

8 A. Well, if you look at the -- if you're
9 going to judge that by the number of cases of CBD,
10 there are less cases reported by Rockwell than
11 Brush.

12 Q. You mentioned Cardiff. Have there
13 been CBD cases at Cardiff?

14 A. I'm not sure if there have been any,
15 but I know there either were none or almost none.

16 Q. How long has the Cardiff facility
17 been in existence?

18 A. I don't remember when it started.

19 Q. What is the range of latency for the
20 development of CBD?

21 A. It can have a very long latency
22 period, many years.

23 Q. How many?

24 A. Well, I mean, it would not be unusual
25 to be over 20 years.

1 Q. Could it be over 30 years?

2 A. I suppose it could.

3 Q. Let me rephrase that because anything
4 is possible. Is it your opinion to a reasonable
5 degree of scientific probability that the upper end
6 of the latency range period for chronic beryllium
7 disease is more than 30 years?

8 A. I don't really know what the upper
9 range is. But if the upper range is sufficiently
10 high, it may almost not matter. I mean, if the
11 upper range were a lifetime, then it really wouldn't
12 matter if you got it if you -- if it took 70 or 80
13 years to get it. I don't know what the upper limit
14 is when you could possibly get it.

15 Q. Do you know what the lower limit is?

16 A. Well, based on some of the experience
17 that I've seen at Brush, it appears it could be a
18 few years.

19 Q. Are you aware of any literature
20 reporting a shorter latency period for CBD than a
21 few years?

22 A. I can't think of any offhand.

23 Q. Are you aware of any literature
24 reporting a longer period, latent period, for CBD
25 than 30 years?

1 A. I can't recall any.

2 Q. Okay.

3 A. Although I guess Mr. Gabaldon may
4 very well -- it's possible it's over 30 years.

5 Q. Have you seen any documentation that
6 Brush Wellman has ever communicated to any of its
7 customers that they should be having any of their
8 employees work in glove boxes?

9 A. Offhand, I don't remember Brush
10 specifically identifying the use of glove boxes to
11 their customers.

12 Q. You have reviewed documentation that
13 Brush has provided to its customers. True?

14 A. I have, yes.

15 Q. And in any of that documentation, did
16 you see any indication that Brush told its customers
17 that for certain applications, they should be using
18 hoods or biologic safety cabinets?

19 A. I'd have to look at the literature
20 again to talk about what they talked about in terms
21 of precautions.

22 Q. And is that literature here?

23 A. I think it might be. I'd have to
24 look through it.

25 Q. I'm putting all the exhibits before

1 you.

2 A. (Witness peruses document.)

3 These documents, while they don't
4 identify specific engineering controls, it does warn
5 to prevent the inhalation of beryllium; therefore,
6 leaving it to the user how to best implement the
7 warning again that controls are needed.

8 Q. Dr. Rabinovitz, I've read these
9 documents. I know what they say. I'm asking the
10 specific question: Can you identify for me any
11 Brush Wellman document which tells its customers
12 that for certain applications they should have their
13 employees working in glove boxes or hoods or
14 biologic safety cabinets?

15 A. I don't remember if they got down to
16 that level of specificity.

17 Q. Do you have an opinion as to whether
18 Brush Wellman should be providing its customers the
19 specific engineering controls that Brush Wellman is
20 using for the very applications that their customers
21 engage in?

22 A. Do I have an opinion?

23 Q. Yes.

24 A. I do have an opinion.

25 Q. And what is your opinion?

1 A. My opinion is that they should
2 provide the warnings regarding ensuring that anyone
3 using their products are not exposed to levels in
4 excess of the recognized standard, 2 micrograms per
5 cubic meter. However, the implementation of that
6 should -- is probably best left to the user because
7 Brush may not always know or have control over how
8 its customers are using their products.

9 Brush has made available to their
10 customers that if they request any information
11 regarding how to implement Brush's warnings and
12 recommendations to prevent -- warning their
13 customers not to have their employees exposed over
14 the limit, they have provided guidance, and there
15 are letters here written from Brush to Rockwell
16 giving them guidance on how to protect their
17 employees.

18 Q. If Brush Wellman has determined that
19 glove boxes are necessary to protect its own workers
20 who do milling or grinding, should Brush Wellman, in
21 your opinion, be communicating to its customers that
22 their employees who do milling or grinding should be
23 doing such in glove boxes?

24 MR. NOVA: Objection; lacks foundation,
25 incomplete hypothetical.

1 THE WITNESS: Again, there are many
2 different operations that occur, both within Brush
3 and in their customers. It is not always clear that
4 Brush could have the knowledge to know that their
5 customers are doing exactly the same things in the
6 same size, the same ventilation. There are many
7 variables.

8 So I believe Brush correctly warned
9 their customers of what end result must be
10 achieved. They would provide guidance if asked, but
11 there are different ways in different situations.
12 Compliance can best be achieved in different
13 situations in different ways. So in terms of
14 printed material being sent with the product, you
15 can't be too specific.

16 Again, they warned of what end --
17 good end result must be achieved and provided some
18 general guidance. I think that is OSHA's
19 requirement in providing warnings, and Brush
20 complied with that and complied with that before the
21 OSHA Hazard Communication Standard was in effect.

22 BY MR. METZGER:

23 Q. Okay. You've mentioned that
24 Mr. Gabaldon's employers had enough safety and
25 occupational health sophistication to provide

1 Mr. Gabaldon a safe environment. Is it your
2 opinion -- strike that.

3 Between Brush Wellman and Rockwell,
4 which, in your opinion, has greater sophistication
5 regarding -- strike that.

6 As between Rockwell and
7 Brush Wellman, which has greater occupational safety
8 and health sophistication as it relates to
9 beryllium?

10 MR. NOVA: Objection; vague, overbroad.

11 THE WITNESS: The first thing we're dealing
12 with is two entirely different plant situations of
13 what is done with beryllium. Brush Wellman does
14 things with beryllium that Rockwell doesn't. There
15 are some specific potentials for hazardous exposure
16 at Brush that never existed at Rockwell, you know;
17 so you can't answer that question without providing
18 a lot more specifications, you know.

19 BY MR. METZGER:

20 Q. Let me ask you this question: Is
21 there anything that you believe Rockwell knows about
22 the occupational safety and health of beryllium that
23 is not known to Brush Wellman?

24 MR. NOVA: Objection; vague, overbroad.

25 THE WITNESS: Did Rockwell know something

1 about the hazards of beryllium that Brush didn't?

2 BY MR. METZGER:

3 Q. Yes.

4 A. I don't know.

5 Q. Did Brush Wellman know something
6 about the hazards of beryllium that Rockwell
7 didn't?

8 MR. NOVA: Objection; vague, overbroad.

9 THE WITNESS: I don't know the answer to
10 that either. Actually, I need a bathroom break.

11 MR. METZGER: We'll take a break.

12 (A recess was taken.)

13 BY MR. METZGER:

14 Q. Dr. Rabinovitz, do you have any
15 information which would lead you to conclude that if
16 Brush Wellman told Rockwell that beryllium grinders
17 needed to work in a glove box, that Rockwell would
18 not install glove boxes at Mr. Gabaldon's place of
19 employment?

20 A. Say that again.

21 Q. The court reporter will read it
22 back.

23 (Question read.)

24 THE WITNESS: Do I have reason to believe if
25 Brush had told Rockwell to install glove boxes, that

1 Rockwell would not have installed glove boxes? I
2 don't know.

3 BY MR. METZGER:

4 Q. Okay. As you sit here today, is it
5 your belief that Rockwell knows that glove boxes
6 need to be used by its beryllium grinders?

7 MR. NOVA: Objection; vague, lacks
8 foundation, calls for speculation.

9 THE WITNESS: What Rockwell had to do was
10 ensure that employees were not exposed. It's
11 certainly not clear to me that they needed to use
12 glove boxes.

13 BY MR. METZGER:

14 Q. I would like you to assume for this
15 question that in order to protect a beryllium
16 grinder from developing chronic beryllium disease,
17 glove boxes are needed.

18 MR. NOVA: You just wait for a question.
19 That's not a question.

20 BY MR. METZGER:

21 Q. Do you have any information that
22 Rockwell knows that glove boxes are needed for its
23 beryllium grinders?

24 MR. NOVA: Objection; incomplete
25 hypothetical, lacks foundation.

1 THE WITNESS: You're asking me to assume a
2 hypothetical. That hypothetical is that it's not
3 possible to grind beryllium without a glove box and
4 have exposures below 2 micrograms per cubic meter.

5 BY MR. METZGER:

6 Q. No. That's not it at all. I'm
7 asking you to assume that chronic beryllium disease
8 can and does occur below 2 micrograms.

9 A. Okay.

10 MR. NOVA: Wait for a question, please.
11 Wait, Dr. Rabinovitz.

12 THE WITNESS: Okay.

13 MR. NOVA: All this chatter is not
14 questions. That's going to be a problem on the
15 record.

16 BY MR. METZGER:

17 Q. I'm asking you to assume that chronic
18 beryllium disease can and does occur below the 2
19 microgram standard. I'm asking you to further
20 assume that in order to prevent the occurrence of
21 CBD in beryllium grinders, they need to be using
22 glove boxes.

23 Do you have any information that
24 Mr. Gabaldon's employers at any time knew that they
25 had to be giving Mr. Gabaldon a glove box to work

1 in.

2 MR. NOVA: Objection; lacks foundation,
3 incomplete hypothetical, and unintelligible.

4 THE WITNESS: First of all, Rockwell didn't
5 know in your hypothetical that employees could get
6 CBD below 2 micrograms per cubic meter. Therefore,
7 they would not know that you can't protect in your
8 hypothetical an employee unless he used a glove
9 box. So since Rockwell doesn't know any of these
10 hypotheticals, why would you expect them to think
11 they had to have a glove box?

12 BY MR. METZGER:

13 Q. Perhaps because Brush Wellman should
14 have told them that.

15 MR. NOVA: Just wait for a question. Move
16 to strike as not a question.

17 MR. METZGER: There was a question. He
18 asked it, so I answered it.

19 Q. All right. Do you have an opinion as
20 to whether the warning material that you've referred
21 to that Brush Wellman provided to Rockwell was
22 adequate to protect Mr. Gabaldon's health?

23 A. The information provided to Rockwell
24 clearly identified that working with beryllium could
25 potentially be hazardous if excessive exposures

1 occurred, and Brush even informed Rockwell before
2 they even started working with beryllium methods or
3 provided them an avenue for how they could obtain
4 the information they needed to set up a safe program
5 or a program that would permit their -- protect
6 their workers. So they warned about the hazards,
7 and they identified how Rockwell could proceed to
8 protect their workers.

9 Q. In your opinion, the warnings were
10 adequate?

11 A. Yes.

12 Q. In your opinion, the safe use and
13 handling instructions were adequate?

14 A. The --

15 MR. NOVA: Objection; vague.

16 THE WITNESS: Again, Brush does not always
17 know how its customers are going to use their
18 products. They don't know the size of the room or
19 the number of grinders. There may be a number of
20 things they're not privy to. Rockwell was a secure
21 facility. They couldn't even go in there.
22 Therefore, you can't provide the last level of
23 detail, and there's also sometimes different ways of
24 providing protection.

25 So while Brush's moral obligation was

1 to warn the user that beryllium was toxic, they went
2 beyond that and provided a road map for how they
3 could go about protecting their workers and, thus,
4 Brush acted reasonably in warning their users
5 regarding the hazards of working with beryllium.

6 BY MR. METZGER:

7 Q. Did Brush Wellman provide any use and
8 handling information to Rockwell?

9 A. In very general terms, yes.

10 Q. In your opinion, was that
11 information -- the safe use and handling information
12 that Brush Wellman provided to Rockwell, was that
13 adequate?

14 A. Yes.

15 Q. Did Brush Wellman provide any hazard
16 communication to Rockwell prior to 1997 which warned
17 that exposure to beryllium can cause death?

18 A. I'd have to go back and review
19 whether the word "death" actually appears, whether
20 the description of CBD is written in a way that you
21 can conclude it can be fatal. Clearly, I recall the
22 warnings discussing that it could cause a serious
23 disease, but I have to go back to see if it actually
24 used the word "death." I don't recall that at the
25 moment.

1 Again, the warnings were sufficiently
2 adequate that if someone were looking at it, they'd
3 say, "I don't believe a reasonable person would
4 conclude, 'Oh, it doesn't say it will cause me to
5 die. Therefore, it's okay to be exposed to levels
6 that will injure me.'"

7 Q. Is it your opinion that when a
8 manufacturer of a product knows of a hazard that its
9 product can cause death, that the manufacturer need
10 not warn its customers of that?

11 MR. NOVA: Objection; vague, overbroad.

12 THE WITNESS: Again, you'd have to look at
13 the warning if it can cause death. But the user
14 might be able to conclude from the warning that the
15 disease -- the resulting disease would be disabling
16 or might cause death. I think we'd have to look at
17 the specific warning and look at the gravity of what
18 the adverse effect is. And it seems to me that if
19 it suggests serious harm, then that would be
20 adequate.

21 BY MR. METZGER:

22 Q. Taking a look at Exhibit 18, can you
23 identify for me in that material safety data sheet
24 any language which you believe communicates to
25 Brush Wellman's customer that this product can cause

1 death?

2 A. (Witness peruses document.)

3 Yes.

4 Q. What language?

5 A. A language that suggests two parts.

6 One is --

7 Q. Excuse me. Please read the language,
8 and don't characterize it.

9 MR. NOVA: Is this a new question now?

10 He's asking a new question. He
11 doesn't want you to answer the first question,
12 apparently.

13 BY MR. METZGER:

14 Q. I want you to read the language and
15 not characterize it.

16 A. You want me to read the language that
17 would permit the reader to infer that excessive
18 exposure to beryllium can cause death?

19 Q. Yes.

20 A. Okay. I can do that. "Beryllium has
21 been so listed based principally on animal tests and
22 therefore as shipped by Brush this material bears a
23 label identifying it as potential cancer hazard."
24 Everyone knows that cancer causes death; so that is
25 clearly one indication that exposure to beryllium

1 causes death.

2 Secondly, it says "Effects of
3 overexposure, a serious chronic lung disease." And
4 I believe that most people can recognize if you have
5 a serious lung disease restricting the ability to
6 transfer oxygen, carrying out a basic life function,
7 that that could result in death.

8 Q. Do you believe that the language
9 "cough" conveys a risk of death?

10 A. No.

11 Q. Do you believe the language "chest
12 pain" conveys a risk of death?

13 A. Not by itself.

14 Q. Do you believe that the language
15 "shortness of breath" conveys a risk of death?

16 A. Not by itself.

17 Q. Do you believe that the language
18 "weight loss" conveys a risk of death?

19 A. No. That sounds appealing.

20 Q. Do you believe that the language
21 "weakness" conveys a risk of death?

22 A. Not by itself.

23 Q. Do you believe that the language
24 "fatigue" conveys a risk of death?

25 A. Not by itself.

1 Q. In this document all of those words
2 are characterizing the serious chronic lung
3 disease. True?

4 A. They are characterizing it, yes.
5 They are modifying it, yes.

6 Q. Can you tell me what the current
7 state of medical opinion is regarding what the
8 prevalence or incidence of CBD is among beryllium
9 workers?

10 MR. NOVA: Objection; asked and answered.
11 Answer it again.

12 THE WITNESS: I forgot the first part. Can
13 you reread the question, please.

14 (Question read.)

15 THE WITNESS: I believe that that's a
16 variable. I don't know -- well, different people
17 have suggested different numbers. I don't know all
18 the latest numbers that have been proposed.

19 BY MR. METZGER:

20 Q. What are the numbers that you are
21 aware of?

22 A. I am aware of numbers anywhere from
23 less than a percent to around 16 percent.

24 Q. What information in the exhibits
25 before you informs Brush Wellman's customers that

1 the incidence or prevalence of CBD may be as much as
2 16 percent?

3 A. I don't believe there's anything in
4 there that suggests it could be 16 percent, nor do I
5 believe that there is scientific evidence to show it
6 at 16 percent.

7 Q. Are you aware of any literature which
8 reports a prevalence of CBD in long-term beryllium
9 workers of at least 20 percent?

10 A. I have not seen that.

11 Q. Do you believe it is an adequate --
12 strike that.

13 For Brush Wellman to communicate to
14 its customers and their employees that only one
15 percent of the population that is exposed to
16 beryllium is even susceptible of getting the
17 disease, do you believe that that is an adequate
18 warning?

19 MR. NOVA: Objection; vague.

20 THE WITNESS: The warning that Brush
21 provides states that beryllium is -- can be
22 hazardous and suggests what safe exposure limits
23 are. It does not suggest that you only have to have
24 one percent or five percent of your work population
25 comply with the standard. Therefore, that is a

1 piece of additional information which has changed
2 over time but would not permit the user to ignore
3 the standard or change them from providing a safe
4 environment for all their workers.

5 BY MR. METZGER:

6 Q. Do you believe that a worker has the
7 right to know what the odds are that the worker will
8 develop chronic beryllium disease?

9 MR. NOVA: Objection; vague.

10 THE WITNESS: I believe that a worker has a
11 right to expect that his employer will provide a
12 safe environment.

13 BY MR. METZGER:

14 Q. That's not what I asked you.

15 MR. NOVA: Would you stop cutting him off,
16 Mr. Metzger. Would you let him finish his
17 responses, please.

18 MR. METZGER: Well, his response is totally
19 unresponsive.

20 MR. NOVA: That's not for you to decide.

21 MR. METZGER: I think it is.

22 MR. NOVA: You can answer the rest of the
23 question if you were not finished.

24 THE WITNESS: The likelihood of getting CBD
25 is dependent on more factors than just what

1 percentage of the population is sensitive; working
2 conditions, exposure levels, and so on. I don't
3 believe that an employee would be in a position to
4 correctly assess his risk just from knowing or
5 suggesting that one percent might be the correct
6 percent of the population that was at risk, and
7 there is at least data to support for a certain time
8 period that that may have been correct.

9 BY MR. METZGER:

10 Q. You don't believe that some workers
11 would be willing to work in an environment where
12 they knew that there was only a one percent risk
13 that they were even susceptible to developing the
14 disease, but that workers might not be willing to
15 work in an environment where there was a 20 percent
16 risk?

17 MR. NOVA: Objection; argumentative.

18 THE WITNESS: It's not up to the worker to
19 decide what risk he wants to take. The employer
20 needs to provide a safe working environment for the
21 employee.

22 BY MR. METZGER:

23 Q. In your opinion, did Mr. Gabaldon's
24 employers provide a safe working environment for
25 him?

1 A. To the extent they were not able to
2 comply with the 2 microgram per cubic meter
3 standard, there might have been some risk of getting
4 CBD.

5 MR. METZGER: Can you read the question
6 back, please.

7 (Question read.)

8 THE WITNESS: And my answer was to the
9 extent they weren't able to comply with the 2
10 microgram standard, we could say they probably
11 should have done a better job.

12 BY MR. METZGER:

13 Q. I'm not asking you whether they
14 complied with the 2 microgram standard or whether
15 they should have done a better job. My question to
16 you is: In your opinion, did Mr. Gabaldon's
17 employers provide him a safe workplace?

18 A. Well, again, my answer is to the
19 extent they didn't comply with the 2 microgram,
20 there was some risk which would reduce the safety.

21 Q. Did Mr. Gabaldon's employers comply
22 with the 2 microgram standard?

23 A. Not at all times.

24 Q. And what are you basing that opinion
25 on?

1 A. There's a document here from
2 Mr. Port and Runion, 1965 document, which shows that
3 there were -- in their air sampling program that
4 they documented exposures over 2 micrograms per
5 cubic meter. Also in the NIOSH visit to the plant,
6 they also concluded there was a time period where
7 exposures over 2 micrograms per cubic meter
8 occurred.

9 Q. Were any of those conclusions based
10 upon an eight-hour time-weighted-average personal
11 breathing zone sample?

12 A. I think -- I don't know 100 percent.
13 My suspicion is for back in 1963, the answer would
14 be no, which would suggest that the actual exposure
15 might have been even higher.

16 Q. But might not have been?

17 A. Based on my review of how exposures
18 occur with working with beryllium, area sampling
19 almost always underestimates exposure.

20 Q. And are you familiar with the
21 location -- with the strategy that Mr. Gabaldon's
22 employers used in locating the area samplers?

23 A. I'd have to reread that. I don't
24 remember exactly how they did it.

25 Q. Okay. I'd like you to assume that

1 the area samplers recorded higher levels of
2 beryllium than personal breathing zone samplers.
3 Would you have any explanation for that?

4 MR. NOVA: Objection; vague, incomplete
5 hypothetical, lacks foundation.

6 THE WITNESS: If the area samples were
7 source zone samples, that could explain it. Let me
8 take a two-minute break again, please.

9 BY MR. METZGER:

10 Q. All right. We'll wait.

11 (A recess was taken.)

12 BY MR. METZGER:

13 Q. The name Shogo Shima is familiar to
14 you. True?

15 A. Yes.

16 Q. When is the first time that you heard
17 of Dr. Shogo Shima?

18 A. I don't remember in what year I
19 first -- it was sometime after I started working
20 with Brush Wellman.

21 Q. Have you been provided any document
22 which, in your opinion, proves that -- strike that.

23 Have you ever reviewed the record of
24 the OSHA beryllium hearings from 1977?

25 A. I've read some of it.

1 Q. Have you ever read the entire record?
2 A. I don't think I read the entire
3 record.
4 Q. In what you did read, did you see any
5 reference to any of Dr. Shogo Shima's studies?
6 A. I don't remember. I'd have to look
7 at it again.
8 Q. Do you have any information -- strike
9 that.
10 Have you seen any document which
11 documents transmission of any of Dr. Shima's written
12 studies to OSHA?
13 A. A transmittal letter?
14 Q. A transmittal letter or any other
15 type of document.
16 A. From whom?
17 Q. From --
18 MR. NOVA: From anybody.
19 BY MR. METZGER:
20 Q. From anyone.
21 A. I can't recall.
22 Q. Do you know Robert Manware
23 personally?
24 A. No.
25 Q. Have you ever heard the name?

1 A. No.

2 Q. Have you undertaken any
3 investigation, independent investigation, to
4 determine whether Brush Wellman informed OSHA during
5 the 1977 beryllium hearings regarding Dr. Shima's
6 studies?

7 A. You're asking me if Brush Wellman in
8 their comments to OSHA in their hearings
9 specifically referred to Dr. Shima's work?

10 Q. That would be part of it.

11 A. I am not aware of them referring to
12 Dr. Shima in their presentation to OSHA.

13 Q. As a matter of fact, in their
14 presentation to OSHA, they do not mention
15 Dr. Shima's studies at all. True?

16 A. I don't remember seeing any.

17 Q. I'm showing you Exhibit 10 to your
18 deposition.

19 A. Yes.

20 Q. Are you relying on that document for
21 any of your opinions in this case?

22 A. It's supplemental material just to
23 show that when Dr. Shima came and visited, that he
24 was told to go and visit with governmental agencies.

25 Q. Are you relying on this document for

1 any of your opinions in this case?

2 A. Not for any of the opinions that I've
3 been specifically asked to provide in this case, no.

4 Q. Are you relying on this document for
5 any opinions that you have expressed here today?

6 A. I believe you asked me about
7 Dr. Shima; so I'm relying on that in part to answer
8 your questions regarding whether Brush attempted to
9 hide the information that Dr. Shima was presenting.

10 MR. NOVA: Mr. Metzger, why don't you sit
11 back, please.

12 BY MR. METZGER:

13 Q. Do you believe that that is a genuine
14 document?

15 A. I have no reason not to think it's --
16 it's a copy, but I have no reason to think it's not
17 a copy of a genuine document.

18 Q. Do you have any reason to believe
19 that it is a genuine document?

20 A. Yes.

21 Q. What is that?

22 A. It was provided by Brush.

23 Q. And in your opinion, that is a reason
24 to believe that it is a genuine document?

25 A. It is consistent with interview

1 testimony that I've been given.

2 Q. What interview testimony?

3 A. Dr. Preuss, for one.

4 Q. Who else?

5 A. That's who I remember talking to me
6 about it.

7 Q. What did Dr. Preuss tell you?

8 A. I recall he told me that when
9 Dr. Shima came over, that they had said that they
10 had invited him to meet with governmental agencies,
11 and that's consistent with what's in this document.

12 Q. Who is the "they" who invited
13 Dr. Shima to meet with governmental agencies?

14 A. I believe Dr. Preuss was one.

15 Q. Anyone else?

16 A. I don't remember anyone, any specific
17 name at this time.

18 Q. Who did Dr. Preuss tell you that he
19 invited Dr. Shima to meet with?

20 A. I believe he had mentioned OSHA. I
21 don't know if I remember him mentioning some of
22 the -- possibly NIOSH, too. I don't remember if
23 he -- I don't specifically remember him saying the
24 EPA, AEC. He may have. I just don't remember that.

25 Q. Have you contacted anyone at OSHA to

1 determine whether Dr. Shima met with them?

2 A. No.

3 Q. Have any of Brush Wellman's attorneys
4 or anyone else from Brush Wellman provided you a
5 copy of notes of a medical meeting at Luckey, Ohio,
6 from March 20 and 21, 1951?

7 A. I'd have to go through my files to
8 look and see.

9 Q. Do you recall seeing such a document?

10 A. Not off the top of my head.

11 Q. Have any of the attorneys of
12 Brush Wellman or any employees of Brush Wellman ever
13 provided you a copy of Bent Kelgrin's daily journal
14 files from March 19 through 20, 1951?

15 A. It doesn't sound familiar, but again
16 I'd have to check my files to see if it's there.

17 Q. Have Brush Wellman's attorneys or
18 anyone from Brush Wellman provided you any
19 correspondence from Dr. Joseph De Nardi?

20 A. Same answer.

21 Q. You don't recall receiving any of
22 that?

23 A. I don't recall. I'd have to check to
24 see if it's there.

25 Q. Has Brush Wellman or its attorneys

1 provided you any correspondence from NGK Insulators?

2 A. I have information from NGK. I don't
3 know if it's NGK Insulators.

4 Q. Have you been provided any
5 correspondence from NGK or NGK Insulators addressed
6 to H.C. Piper, the vice president of Brush Wellman?

7 A. I may have. I'd have to check my
8 files.

9 Q. You don't specifically recall seeing
10 such a document?

11 A. Not at the moment.

12 Q. Has Brush Wellman or its attorneys
13 provided you with any correspondence from Dr. Shima
14 to Dr. Van Ordstrand?

15 A. Again, I'd have to look. I do have
16 documents from Dr. Shima. Whether there's one
17 specifically addressed to Dr. Van Ordstrand, I don't
18 recall.

19 Q. Have you been provided any
20 correspondence from Dr. Shima from the year 1974?

21 A. Again, I have material from
22 Dr. Shima. Whether it's dated 1974, I'd have to
23 look.

24 Q. And these documents which you're
25 referring to which you would have to look to, you

1 haven't brought here today. Is that true?

2 A. That's true.

3 Q. Have you been provided a copy of a
4 memorandum from Steve Zenczak to Martin Powers dated
5 June 15, 1977?

6 A. I don't know.

7 Q. It doesn't ring a bell?

8 A. No.

9 Q. Have you been provided a copy of a
10 trip report regarding a meeting with Dr. Eisenbud
11 prepared by Dr. Thomas Markham dated June 30, 1989?

12 A. Sounds somewhat familiar. Whether I
13 have it, again, I'd have to check, but it sounds
14 familiar.

15 Q. And what do you recall about that
16 document?

17 A. I don't. I'd have to look at it.

18 Q. Have you ever seen any document
19 stating that the 2 microgram standard is to minimize
20 chronic disease but is liable to allow chronic
21 disease?

22 A. The only such statement that I am
23 aware of is the ACGIH standard of 2 micrograms per
24 cubic meter. In their preamble -- and their
25 preamble goes for all of their TLVs regardless of

1 the degree of documentation of the adequacy of the
2 number, and that varies from chemical to chemical.
3 So in their preamble, they caution that the TLVs may
4 not be fully protective.

5 Q. Based upon that preamble of the
6 ACGIH, is it your belief that exposure to beryllium
7 below the 2 microgram standard can cause chronic
8 beryllium disease in some individuals?

9 A. Is it my belief based on the TLV?
10 Is that what you're asking?

11 Q. No. Taking into account that
12 preamble to the ACGIH TLVs and other information
13 that you have, is it your belief that exposure to
14 beryllium below the 2 microgram standard may cause
15 CBD in some individuals?

16 A. And the answer to that is no because,
17 again, the preamble is a general preamble for some
18 chemicals. The limit is based on very limited data
19 and may not be based on any human epidemiological
20 data. That is certainly not the case for beryllium,
21 and I talked earlier about why I believe the 2
22 microgram standard is protective.

23 Q. When the 2 microgram standard was
24 established, was it based on empirical data?

25 A. If you're talking about

1 dose-response data, the answer is no.

2 Q. Was it based on any epidemiologic
3 data?

4 A. No. That's why it was so low.

5 Q. Have you been provided any
6 Brush Wellman documents -- strike that.

7 Have you been provided a document
8 authored by a Brush Wellman CEO stating that "Our
9 records show that practically all our occupational
10 disease cases during the last year have occurred in
11 places below the 2 microgram limit"?

12 A. I don't know if I've seen it in
13 writing, but I have heard that that statement was
14 made.

15 Q. Who told you that that statement was
16 made?

17 A. Mr. Nova.

18 Q. But he didn't provide you the
19 document?

20 A. I don't think I've seen it in written
21 form.

22 Q. Did you ask him to provide you that
23 document?

24 A. No.

25 Q. Why not?

1 A. Because that -- there's information
2 that also there are some areas where exposures over
3 or higher levels of exposure existed, and little CBD
4 cases have been found. And so whether that is
5 showing the complexity of truly identifying the form
6 or physical or chemical structure of beryllium, we
7 don't know all the answers of exactly how CBD is
8 caused. But clearly in terms of the situation where
9 there was CBD found in employees in an area where it
10 did not seem to have exposures over 2, that did not
11 mean that those employees had not been exposed over
12 2.

13 So, therefore, there was nothing
14 really inconsistent or could be used to prove that
15 exposures below 2 result in CBD.

16 Q. So you have no desire to see the
17 document?

18 A. What would be of greater desire would
19 be to see the background information of where these
20 workers were to do an evaluation of the situation
21 and find out what's going on. A comment by a member
22 of Brush Wellman that does not imply anything of a
23 scientific nature or can be used scientifically,
24 that would not be of relevance to me. What would be
25 of relevance to me is the evaluation, the scientific

1 identification of what's going on.

2 Q. Did you ask Mr. Nova to provide you
3 that documentation?

4 A. Right at the moment, I have not been
5 asked to comment on that particular situation.

6 Q. Did you ask Mr. Nova to provide you
7 that documentation?

8 A. No.

9 Q. Why not?

10 A. Because, again, in this particular
11 case, I was not asked to draw conclusions that would
12 require that information.

13 Q. But you nevertheless are prepared to
14 testify that, in your opinion, Brush Wellman did not
15 conceal the hazards of beryllium disease. True?

16 MR. NOVA: Objection; argumentative.

17 THE WITNESS: Yes. That's true.

18 BY MR. METZGER:

19 Q. Do you believe that anyone has proven
20 beyond a doubt that the 2 microgram standard is
21 completely safe in terms of preventing chronic
22 beryllium disease?

23 A. Again, in my evaluation, I have
24 concluded that based on all I have seen, there's
25 sufficient data to permit that conclusion. But as a

1 good health scientist, I would certainly agree that
2 we need to continue to look at beryllium and disease
3 because we should find out the exact mechanism. And
4 that at this moment is an unknown.

5 Q. What scientific proof are you aware
6 of that, in your opinion, proves beyond a doubt that
7 the standard is completely safe for preventing
8 chronic beryllium disease?

9 A. I've already gone over my evaluation
10 and the information that I've used to conclude that
11 the 2 microgram level is safe.

12 Q. But what specific study or studies
13 are you relying on for the conclusion that it's been
14 proven beyond a reasonable doubt that it's
15 completely safe?

16 A. And, again, I told you the studies
17 that I have used that permit me to conclude that at
18 this time there is sufficient information to
19 conclude that the 2 microgram per cubic meter limit
20 is safe. However, as a good scientist, again, I
21 applaud the efforts of the occupational health
22 community to continue to investigate because we need
23 to find out what the actual mechanism of how CBD
24 causes -- of how beryllium causes CBD needs to be
25 determined.

1 Q. Can you identify for me any
2 epidemiologic study which proves beyond a doubt that
3 the 2 microgram standard is completely safe?

4 A. And again, I'm not referring to any
5 one population. I'm looking at several populations,
6 which adds to the strength of that conclusion.

7 Q. Can you identify for me any written
8 epidemiologic study published in any peer-reviewed
9 journal which, in your opinion, establishes beyond a
10 doubt that the 2 microgram standard is completely
11 safe?

12 A. And, again, I just told you the
13 populations I have looked at and how I've drawn my
14 conclusions.

15 MR. NOVA: Repeat them. He needs to hear
16 them again. Repeat them.

17 BY MR. METZGER:

18 Q. I'm asking for a published
19 epidemiologic study. Can you identify one?

20 A. Not off the top of my head, I can't.

21 Q. Are you aware of any organizations
22 that have questioned the protectiveness of the 2
23 microgram standard?

24 MR. NOVA: Objection; asked and answered.
25 One more time we'll go through this.

1 THE WITNESS: Yes.

2 BY MR. METZGER:

3 Q. Which?

4 A. The Department of Energy and the
5 ACGIH.

6 Q. Is it true that the Department of
7 Energy does not believe that the 2 microgram
8 standard is adequate to prevent CBD?

9 A. I know that they did not change the 2
10 microgram per cubic meter limit.

11 Q. You know that?

12 A. Yes.

13 Q. And that is part of the basis for
14 your opinion. True?

15 A. What? They didn't change the limit;
16 so if they thought that that limit should be
17 changed, I would assume they'd change it.

18 Q. That's part of the basis of your
19 opinion that CBD cannot occur below 2 micrograms.
20 Is that true?

21 A. No, that is not true.

22 Q. Okay. You mentioned the ACGIH. What
23 has the ACGIH done?

24 A. I believe they have proposed a lower
25 limit.

1 Q. And they did that in formal
2 documentation. True?

3 A. Yes.

4 Q. Have you read that documentation?

5 A. I believe I have, yes.

6 Q. Are you uncertain that you've read
7 the documentation supporting the proposed change of
8 the ACGIH?

9 A. No. I have read it. I just don't
10 remember all of it right now.

11 Q. You don't have it with you, the
12 document?

13 A. No.

14 Q. Do you disagree with any of the
15 reasoning set forth in that document?

16 A. Again, I'd have to reread it to
17 refresh myself to be able to answer that question.

18 Q. You have here some deposition
19 excerpts apparently from Mr. Gabaldon's deposition.
20 True?

21 A. Yes.

22 Q. Are you relying on these excerpts for
23 any of your opinions in this case?

24 A. You know, I'd have to go through and
25 see what my comments are.

1 Q. Well, as I understand it, from the
2 way you've related your opinions, they don't relate
3 specifically to Mr. Gabaldon.

4 A. Pardon?

5 Q. They don't relate specifically to
6 Mr. Gabaldon.

7 A. What doesn't relate specifically?

8 Q. Your opinions.

9 A. I used some of what Mr. Gabaldon said
10 to reaffirm. For example, he indicated they had
11 medical exams. He indicated he was provided a
12 respirator. He indicated he did have training. So
13 that supports my position that Rockwell was a
14 sophisticated user.

15 Q. I understand. Are you rendering any
16 opinion or have you formed any opinion in this case
17 regarding Mr. Gabaldon's -- strike that.

18 Have you been asked to form an
19 opinion in this case regarding Mr. Gabaldon's
20 exercise of reasonable care for his own safety?

21 A. Have I read anything about that?

22 Q. Have you been asked to form an
23 opinion on that?

24 A. It was mentioned, but that is not
25 part of the conclusions or the opinions that I was

1 asked to form.

2 Q. So as I understand it, you are not
3 going to be rendering an opinion as to whether
4 Mr. Gabaldon exercised reasonable care for his own
5 health and safety?

6 A. No. I was not asked to comment on
7 that.

8 Q. And you have no opinion on that.
9 True?

10 A. I have an opinion on it, yes.

11 Q. Well, do you have an opinion that you
12 will be offering in this case, or is this just an
13 opinion that you're going to keep to yourself
14 because you haven't been asked to render an opinion
15 on it?

16 A. I am going to keep it to myself
17 unless asked, but at this time I have not been
18 asked.

19 MR. METZGER: Mr. Nova, is he going to be
20 asked that at trial?

21 MR. NOVA: Well --

22 MR. METZGER: Make a decision. Just let me
23 know.

24 MR. NOVA: Excuse me?

25 MR. METZGER: I'm asking you to make a

1 decision. Just let me know.

2 MR. NOVA: You've been asking him questions
3 all day on topics that we are not offering for
4 trial; so I'm not intending to cut this off now. If
5 you want to go on asking him opinions on whatever
6 opinions he has, you spend your deposition time as
7 you see fit.

8 BY MR. METZGER:

9 Q. All right. Then since Mr. Nova is
10 not saying that you will not be rendering an opinion
11 on this, I can only assume you will be. I will
12 therefore ask you: Dr. Rabinovitz do you have an
13 opinion as to whether Mr. Gabaldon exercised
14 reasonable care for his own health and safety?

15 A. My understanding is that he sometimes
16 reached into -- he opened the enclosure contrary to
17 what he was told to do, which was an act that might
18 lead to an elevated exposure. Therefore, he did
19 something that he was told not to do, which he knew
20 could result in an increased exposure; so he did not
21 act to protect his health in that situation.

22 Q. Is there anything else?

23 A. That's the only piece of information
24 that I am aware of where he was trained to do
25 something differently and ignored the training.

1 Q. Is there any other information that
2 you have that Mr. Gabaldon did not act reasonably to
3 protect his own health and safety in doing his work?

4 A. That's the only incident that I am
5 aware of.

6 Q. Who told Mr. Gabaldon not to open the
7 enclosure to the machine?

8 A. I noticed that in the air sampling
9 report it's noted that he was told.

10 Q. Show me such a report, please.
11 You're referring to Exhibit 25. True?

12 A. Yes. There is a comment that it was
13 noticed that at times that he had his enclosure
14 open, and there's a date that he was orally
15 notified.

16 Q. Referring to a document stamped
17 Page 1224. True?

18 A. Yes. Do you want me to continue
19 looking?

20 Q. Sure. Go through that. Just
21 identify the page numbers of any of these pages in
22 here which you believe indicate that Mr. Gabaldon
23 was told not to open the machine enclosure.

24 A. (Witness peruses document.)
25 There is another one. It's

1 Page 1226.

2 Q. Any others?

3 A. And here it indicates that "The
4 operator will have to wear a respirator if he can't
5 work with the enclosure."

6 "Page 1223," notices that the hood
7 was open at times during grinding.

8 Q. Keep in mind the question. I'm
9 asking you to identify for me documents which you
10 believe indicate that Mr. Gabaldon was told not to
11 open the enclosure on the machine.

12 A. It mentions the date of employee
13 notification on some of these, not all of them. And
14 I'm assuming that that recognizes that he was told
15 not to.

16 Q. Looking at Exhibit 25, the page Bates
17 stamped No. 1226, you read language on this page
18 that "The grinder operator will have to wear
19 respirator if he can't work with enclosure." True?

20 A. Yes.

21 Q. Does that indicate to you that
22 Mr. Gabaldon had to open the enclosure to do his
23 work?

24 A. That suggests to me he doesn't have
25 to open it to do his work.

1 Q. Why is that?

2 A. Because it doesn't say he will have
3 to wear a respirator because he has to open his
4 enclosure while doing his work. It suggests that if
5 he won't do it with the enclosure, with the door
6 closed, then he's going to have to wear a
7 respirator.

8 Q. That's the way you interpret that?

9 A. Yes.

10 Q. Did you contact the author of this
11 document to determine if your interpretation is
12 correct?

13 A. No.

14 Q. Have you contacted the authors of any
15 of these documents to determine whether your
16 interpretation is correct?

17 A. No.

18 Q. For any of these occasions, do you
19 know personally what Mr. Gabaldon was told?

20 A. I was not there to hear the exact
21 wording.

22 Q. Do you know what information was the
23 custom and practice of the industrial hygienists at
24 Rockwell to inform the worker regarding these
25 sampling reports?

1 A. I don't know the specific manner in
2 which they did it.

3 Q. Do you know that they provided any
4 information to the worker other than the level
5 recorded?

6 A. I'm assuming based on that
7 information that they told him that he had to work
8 with the enclosure closed, or he'd have to wear his
9 respirator.

10 Q. Have you ever seen a beryllium
11 grinding operation?

12 A. Yes.

13 Q. Have you ever watched a worker doing
14 that operation for a few hours?

15 A. No.

16 Q. Do you know whether that operation
17 can be done without opening the enclosure?

18 A. Based on the fact that just that
19 documentation says he needs to do it without opening
20 it, I assume they wouldn't put it in there saying
21 that it could be done that way if it couldn't be
22 done that way.

23 Q. I'm not asking you to assume
24 anything. Do you know whether that operation can be
25 done without opening the enclosure?

1 A. I do know that grinding operations
2 can be done that while the grinding is going on, the
3 enclosure should be closed. That's why they put a
4 door on it, to close it. If you had to operate it
5 with the door open, why have a door?

6 Q. Do you know that the entire operation
7 that Mr. Gabaldon had to do in his work at Rockwell
8 in grinding beryllium could be done with the
9 enclosure closed at all times?

10 A. Certainly not at all times. Just
11 putting the piece in and out. But there's no
12 grinding going on at that point.

13 Q. Did the piece have to be turned?

14 A. It's certainly possible the piece
15 would have to be turned. But while you're turning
16 it, you turn the grinder off.

17 Q. To turn the piece, do you have to
18 open the enclosure?

19 A. I would assume you would.

20 Q. And to turn the piece, do you have to
21 bend over the machine to reach the part?

22 A. You know, I would have to physically
23 be there to see the size and know that. I don't
24 know. Often most grinding situations I've seen, you
25 can reach in. You don't really have to lean over.

1 But perhaps if he were short and it was a machine
2 that was a little tall, I can't say for sure.

3 Q. Do you know what the size of the
4 parts were that he was grinding?

5 A. There was some description of some of
6 the parts, but I certainly don't know all the sizes.

7 Q. To do high-precision grinding, is it
8 necessary for the grinder to inspect visually the
9 part closely?

10 MR. NOVA: Object. The question is vague.

11 THE WITNESS: In terms of tolerances, there
12 are measurements that I'm aware of that are often
13 made. I don't know the specific procedure; but if
14 measurements have to be made, then you stop the
15 grinding, make your measurement, and then start
16 grinding again.

17 BY MR. METZGER:

18 Q. Have you seen any documentation which
19 indicates that 25 percent of the time Mr. Gabaldon
20 had to work with the enclosure open in order for him
21 to do the job?

22 A. That the enclosure had to be open for
23 25 percent of the time?

24 MR. NOVA: No. The question is: Have you
25 seen any documentation?

1 THE WITNESS: No, I haven't.

2 BY MR. METZGER:

3 Q. Have you told me all your opinions in
4 this case?

5 A. I have told you the general
6 opinions. I have told you what Brush asked me to
7 review and what kind of evaluation -- the items they
8 wanted evaluated and the general conclusions that I
9 have come to through that evaluation.

10 Q. Are there any opinions that you
11 intend to render at trial that you haven't told me
12 today?

13 A. Again, I have told you all the
14 general opinions. There might be something of a
15 nature in support of these general opinions, but I
16 have covered the general topics.

17 Q. Is there any literature or
18 documentation that you are relying on in support of
19 your opinions which we haven't already discussed?

20 A. Again, I told you that in addition to
21 these specific documents (indicating), I am relying
22 on my general knowledge and education and experience
23 from working in this field, which will soon come to
24 around 30 years. No. It's at 30 years.

25 Q. All right. I am unwilling to

1 conclude this deposition because you have not
2 produced documents that I believe you were required
3 to produce today.

4 Mr. Nova, I'm requesting that those
5 be produced as soon as possible and that I'm going
6 to continue this deposition to Wednesday at 10:00 in
7 this office.

8 MR. NOVA: Well, the fact that you choose to
9 ask Dr. Rabinovitz about opinions that he was not
10 offered for is your problem and not ours. I
11 certainly disagree that the deposition -- that you
12 have a right to continue the deposition, and we do
13 not agree with any continuance.

14 MR. METZGER: All right. Are you telling me
15 that you're not going to appear on Wednesday?

16 MR. NOVA: I'm telling you that we intend to
17 take it up with the judge on Monday, and we'll let
18 the judge decide.

19 MR. METZGER: Very well.

20 MR. NOVA: You can cut him a check now,
21 please. Same stipulation.

22 MR. METZGER: No. There's no stipulation.
23 We're going by the Code. The deposition has been
24 continued.

25 (Proceedings adjourned at 4:29 p.m.)

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DECLARATION

I hereby declare I am the deponent in the
within matter; that I have read the foregoing
deposition and know the contents thereof, and I
declare that the same is true of my knowledge except
as to the matters which are therein stated upon my
information or belief, and as to those matters, I
believe it to be true.

I declare under the penalties of perjury of
the State of California that the foregoing is true
and correct.

Executed this day of ,
2000, at , California.

Sheldon H. Rabinovitz, Ph.D., C.I.H.

