

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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|                                 |   |               |
|---------------------------------|---|---------------|
| GCE Gas Control Equipment Inc., | : |               |
|                                 | : |               |
| Petitioner,                     | : |               |
|                                 | : |               |
| vs.                             | : | Case No.      |
|                                 | : |               |
| VBOX, Inc.,                     | : | IPR2023-00326 |
|                                 | : |               |
| Patent Owner.                   | : |               |

- - -

Inter Partes Review No. IPR2023-00326

Patent No. 11,389,614

January 19, 2024

Deposition of

KENT S. KNAEBEL, Ph.D.

a witness herein, called by the Patent Owner for cross-examination under the applicable Rules of Civil Court Procedure, taken before me, Marilyn Martin, a Registered Professional Reporter and Notary Public in and for the State of Ohio, taken by agreement and notice, at the Embassy Suites, 5100 Upper Metro Place, Dublin, Ohio, 43017, on Friday, January 19, 2024, commencing at approximately 8:55 a.m., and concluding at approximately 12:42 p.m.

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- - -

**APPEARANCES :**

**DAVID L. ATALLAH, Attorney at Law**  
**Carlson, Gaskey & Olds, PC**  
**400 West Maple Road, Suite 350**  
**Birmingham, Michigan 48009**  
**(248) 988-8360**  
**datallah@cgolaw.com**

**On behalf of The Patent Owner.**

**ROBERT M. MASTERS, Attorney at Law**  
**Sheppard, Mullin, Richter & Hampton, LLP**  
**2099 Pennsylvania Avenue NW, Suite 100**  
**Washington, D.C. 20006**  
**(202) 747-1900**  
**rmasters@sheppardmullin.com**

**On behalf of Petitioner.**

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**FRIDAY MORNING SESSION  
January 19, 2024  
8:55 a.m.**

- - -

**STIPULATIONS**

- - -

It is stipulated by and between counsel  
for the respective parties herein that this  
deposition of KENT S. KNAEBEL, PH.D., may be taken at  
this time and reduced to writing in stenotypy by the  
Notary, whose notes may thereafter be transcribed out  
of the presence of the witness; that proof of the  
official character and qualifications of the Notary  
is waived.

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**I N D E X**

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**WITNESS**

**PAGE**

**KENT S. KNAEBEL, PH.D.**

**Cross-Examination  
(By Mr. Atallah)**

**05**

- - -

**EXHIBITS**

**MARKED**

**Exhibit 1001  
(Patent 11,389,614)**

**05**

**Exhibit 1003  
(First Declaration)**

**05**

**Exhibit 1004  
(Deane Reference)**

**05**

**Exhibit 1006  
(Berntson Reference)**

**05**

**Exhibit 1029  
(Hill Reference)**

**05**

**Exhibit 1054  
(Patent 10,357,628)**

**05**

**Exhibit 1073  
(Plaintiff/Counter-Defendant's Responsive  
Claim Construction Brief)**

**05**

**Exhibit 1076  
(Patent 10,357,628)**

**05**

**Exhibit 1078  
(Second Declaration)**

**05**

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**P R O C E E D I N G S**

And, thereupon, Exhibits 1001, 1003, 1004, 1006, 1029, 1054, 1073, 1076 and 1078 were previously marked for purposes of identification.

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**KENT S. KNAEBEL, PH.D.,**  
being by me first duly sworn, as hereinafter  
certified, testifies and says as follows:

**CROSS-EXAMINATION**

**BY MR. ATALLAH:**

Q. Good morning, Dr. Knaebel. We've met before.

A. Yes.

Q. We were here a few months ago I believe. My name is David Atallah. I represent the patent owner in this matter. When we had your deposition previously, we went over some ground rules. I'm just going to go through those again to make sure we're on the same page.

A. Yes.

Q. Let's try to speak one at a time and not over each other so the court reporter can take down my questions and your answers; is that fair?

A. Yes.

Q. From time to time, your attorney may

1 object. Unless he instructs you not to answer, you  
2 can then proceed to answer my question. Okay?

3 A. Yes.

4 Q. I'm, obviously, going to be asking you  
5 some questions today. If anything is unclear about  
6 my question, please let me know; and I'll try to  
7 clarify the question for you. Okay?

8 A. Yes.

9 Q. But if you answer my question, I'm going  
10 to assume you understood my question, fair?

11 A. Yes.

12 Q. And if you need a break at any time today,  
13 let me know. We'll finish up the question or two  
14 we're on, and we'll take a break. Okay?

15 A. Yes.

16 Q. Any reason you can't testify truthfully  
17 today?

18 A. That's a double negative.

19 Q. Is there anything that would prevent you  
20 from testifying truthfully today?

21 A. There is nothing.

22 Q. Okay. And you're here pursuant to a  
23 notice of deposition, correct?

24 A. Yes.

25 Q. You recently submitted a second

1 declaration in this IPR; is that --

2 A. Yes.

3 Q. And just focusing on that second  
4 declaration, how long did you spend preparing it?

5 A. Twenty hours more or less.

6 Q. Sir, you know Dr. Talu?

7 A. I do.

8 Q. How do you know him?

9 A. It's a long story.

10 Q. A high level?

11 A. High level. I think our first contact was  
12 I visited Arizona State University when he was a  
13 graduate student there.

14 Q. You two were in academia together for  
15 awhile?

16 A. Not exactly. He subsequently, upon  
17 finishing his Ph.D., accepted a position at Cleveland  
18 State University. I was at Ohio State University.  
19 So I've -- I think the geographical, you know,  
20 proximity helped us become well-acquainted.

21 Q. Okay. And fair to say you've interacted  
22 with him over the years?

23 A. Yes.

24 Q. In this IPR, you have offered an opinion  
25 as to the level of a person of ordinary skill in the

1 art, correct?

2 A. Yes.

3 Q. You do not dispute that Dr. Talu is a  
4 person of ordinary skill in the art, correct?

5 A. I do not.

6 Q. And that's under the definition you  
7 submitted, correct?

8 A. Yes.

9 MR. ATALLAH: This one I have a copy of.  
10 It's the dec.

11 MR. MASTERS: I have that.

12 BY MR. ATALLAH:

13 Q. Dr. Knaebel, I'm going to hand you a copy  
14 of Exhibit 1078 in the IPR. Have you seen that  
15 before?

16 A. Looks familiar, yes.

17 Q. Is that your second declaration?

18 A. Yes.

19 Q. Sir, in Paragraph 4 of that declaration,  
20 you state that you're giving -- your additional  
21 opinions regarding the claims of the 614 patent. Do  
22 you see that?

23 A. Yes.

24 Q. Can you tell me what new opinions you're  
25 making as to why the challenge claims in the 614

1 patent are unpatentable in your opinion?

2 MR. MASTERS: Object to form of the  
3 question.

4 You can answer if you can.

5 A. I believe the additional opinions were  
6 mostly responsive. And in the original declaration,  
7 I expressed certain ideas. And, for example,  
8 Dr. Talu issued a declaration in which some of the  
9 ideas I had presented were contradicted or something.  
10 And I felt it would be helpful to enhance the  
11 explanation. So it's not so much different. It's  
12 just -- you know, tried to maybe clarify anything  
13 that was ambiguous.

14 Q. You said mostly responsive. What would  
15 not fall under that bucket?

16 A. Well, when I said mostly, I meant  
17 everything I can think of is responsive. But there  
18 may have been one or two slightly different ways to  
19 express the ideas that I had.

20 Q. Sir, on Page 7 of your declaration, you  
21 have an annotated figure -- or annotated set of  
22 figures I should say. Do you see that?

23 A. Yes.

24 Q. And those figures originate from the Deane  
25 reference?

1 A. Yes.

2 Q. And that -- For the record, that's  
3 Exhibit 1004 in the IPR.

4 A. Yes.

5 Q. Now, in the paragraph ahead of that or  
6 as -- in the paragraph where that figure is in your  
7 declaration, you say it would have been understood  
8 Deane's configuration to be disassembled in the  
9 manner in the drawing below. Do you see that?

10 A. It's not verbatim. But, yes, that's --

11 Q. It says: A POSITA would have understood  
12 Deane's configuration to be disassembled in the  
13 manner shown in the annotated drawing set forth in  
14 Paragraph 319 of the Knaebel dec, period, paren,  
15 reproduced, end paren.

16 A. Yes.

17 Q. Now, you used, it appears, figures 3, 5, 6  
18 and 8 in that annotated figure, correct, from Deane?

19 A. Yes.

20 Q. Those figures are simply showing different  
21 components of what -- of Deane's system, right?

22 MR. MASTERS: Object to form.

23 You may answer if you understand the  
24 question.

25 A. I would say I don't totally agree with the

1 way you stated, no.

2 Q. How would you state it?

3 A. You said different components. And the  
4 components shown are all basically visible. I mean,  
5 figure 8 and figure 6 are two separate views of what  
6 is shown in figure 5. And figure 5 is a slight  
7 variation of what is shown in figure 3.

8 Q. Well, the figures don't show the same  
9 thing, right?

10 A. Not exactly the same thing.

11 Q. Okay. So figure 6 and figure 8 show two  
12 different components that also appear in figure 5?

13 A. Yes.

14 Q. Now, when I -- Are you familiar with the  
15 shell disclosed in the --

16 A. Do you mean the -- as it's defined in the  
17 Deane patent?

18 Q. Yeah. What Deane calls the shell.

19 A. I believe so.

20 Q. And that shell can come off, right?

21 A. Yes.

22 Q. Okay. Other than -- other than the shell  
23 coming off, Deane's description of these figures that  
24 you rely on don't actually state any manner of  
25 disassembly, correct?

1 A. To be honest, I'm not positive of that,  
2 but --

3 Q. You're not sure?

4 A. I'm not positive that that's the only  
5 thing that it mentions, the term disassembly or  
6 disassemble.

7 Q. Well, is it your opinion that  
8 Deane's -- when Deane describes these figures that  
9 you rely on, it describes a manner of disassembly?

10 A. Excuse me. Could you repeat that?

11 Q. Sure. Is it your opinion that when Deane  
12 describes what these figures are showing, it states  
13 that it is showing a manner of disassembly?

14 MR. MASTERS: Object to form.

15 You may answer.

16 A. I believe so, generally, yes.

17 Q. It's explicitly in Deane?

18 A. I don't know that the word disassembly is  
19 mentioned.

20 Q. I'm going to hand you Exhibit 1004 in the  
21 IPR. You've seen that before?

22 A. Yes.

23 Q. Is that the Deane reference?

24 A. Yes.

25 Q. Okay if I refer to Exhibit 1004 as the

1 Deane reference?

2 A. Yes.

3 Q. So let's take a look at paragraph -- let's  
4 start at paragraph -- right above Paragraph 12. Do  
5 you see that?

6 A. Did you say above?

7 Q. Just above Paragraph 12. That's a header.  
8 Do you see that?

9 A. Yes.

10 Q. And it's called a brief description of the  
11 drawings?

12 A. Yes.

13 Q. Okay. So let's jump down to Paragraph 14  
14 here, which talks about figure 3. Do you see that?

15 A. Yes.

16 Q. It says that's a perspective view of the  
17 apparatus of figure 2 as seen with the shell removed,  
18 correct?

19 A. Yes.

20 Q. And we just talked about that, right?

21 A. Yes.

22 Q. And Paragraphs 12 through 31 describe  
23 providing a brief description of drawings in Deane.  
24 Do you see that?

25 A. Yes.

1 Q. Can you point to me where these drawings  
2 state that these figures show a method of  
3 disassembly?

4 MR. MASTERS: Object to the form of the  
5 question. It's vague and ambiguous.

6 You may answer if you can.

7 A. Okay. I think I did not agree before when  
8 you asked me if it showed disassembly, and I said I  
9 didn't remember the word disassembly being used  
10 there. So it doesn't mention -- as far as I know, it  
11 does not mention disassembly.

12 Q. So as far as you know, these descriptions  
13 of the figures in Deane do not mention disassembly?

14 MR. MASTERS: Object to form. Misstates  
15 prior testimony.

16 A. That's correct.

17 Q. Sir, I'm going to -- Back in your  
18 declaration, if you turn to Paragraph 187, please.  
19 And if you need to orient yourself a little bit as to  
20 what section we're in, go ahead. And I'll -- Maybe I  
21 can help you speed it up if you need to know where  
22 you're at in the dec. I think in Paragraph 180, you  
23 have a header about the subject matter you're talking  
24 about. A few quick questions for you on Paragraph  
25 187. And let me know when you're ready.

1 A. Okay.

2 Q. So in Paragraph 187, you are responding to  
3 some points that the patent owner and Dr. Talu made  
4 regarding monolithic absorbency. See that?

5 A. Yes.

6 Q. And you state that neither patent owner or  
7 Dr. Talu provided evidence that the monolithic  
8 absorbents were a known alternative used in the POCs,  
9 as of 2004 to 2005. Do you see that?

10 A. Yes.

11 Q. And POCs are portable oxygen  
12 concentrators?

13 A. Yes.

14 Q. I'm going to hand you Exhibit -- Actually,  
15 let me do this. At the end your declaration -- I  
16 think it's Appendix A2 -- you list materials  
17 considered I believe.

18 A. Yes.

19 Q. And this would be the materials you  
20 reviewed in forming your opinions in this  
21 declaration?

22 A. Yes.

23 Q. Okay. Now, one of those is Exhibit 1029.  
24 Do you see that?

25 A. Yes.

1 Q. I'm going to hand you that exhibit.  
2 That's Exhibit 1029 to the -- in the IPR. And that's  
3 a reference to Hill; is that correct?

4 A. Yes.

5 Q. And that's U.S. Patent 6,471,744, correct?

6 A. Yes.

7 Q. And it was filed August 16, 2001?

8 A. Yes.

9 Q. Now, if you could turn to column 6 of  
10 Hill. And before I ask another question: You've  
11 reviewed this reference, right?

12 A. Yes.

13 Q. So column 6 starting at line 29, there's a  
14 word, "alternatively." Do you see that?

15 A. Yes.

16 Q. It says: Alternatively, the zeolite may  
17 be in a monolithic form rather than in a packed  
18 particle bed. Do you see that?

19 A. Yes.

20 Q. And then down below it says -- Actually,  
21 that's fine. So, sir, you would agree that there is  
22 evidence that monolithic absorbents were known  
23 alternatives for POCs as of 2004-2005, right?

24 A. Well, I don't think it was the concept  
25 that was in question. It was the reality of it that

1 is -- no one had -- at that point, to my knowledge,  
2 figured out how to form zeolite into a monolith such  
3 that it would perform better than the loose beads in  
4 a fixed bed.

5 Q. So we aren't talking about whether  
6 monolithic absorbents perform better or worse, are  
7 we? That wasn't in Paragraph 187, right?

8 A. Well --

9 Q. That's not in Paragraph 187, correct?

10 A. No, it's not.

11 Q. In Paragraph 187, what you say is that  
12 there's no evidence that the monolithic absorbents  
13 were a known alternative, correct?

14 A. That's correct.

15 Q. And Hill existed as of 2004-2005, the Hill  
16 reference we were just talking about?

17 A. Yes.

18 Q. And it says that, alternatively, the  
19 zeolite can be in a monolithic form, right?

20 A. Yes.

21 Q. So monolithic absorbents were known for  
22 portable oxygen concentrators based on Hill, correct?

23 MR. MASTERS: Objection. Asked and  
24 answered.

25 A. It does say that, yes.

1 Q. And if -- if monolithic -- If -- And when  
2 you use a monolithic absorbent, you do not need a  
3 retaining disk, right?

4 A. "Need" I think would be slightly more than  
5 I would go. In other words, probably most engineers  
6 would put in some type of filter or plate to restrain  
7 any loose media that happened to fall off the  
8 monolith.

9 Q. So you might use one, but you don't need  
10 one, right?

11 A. That's right.

12 Q. Turning back to the Deane reference,  
13 you've offered a number of opinions in this IPR  
14 regarding Deane's manifold and housing. And the  
15 housing I'm referring to is the one that would  
16 contain absorbent material; is that right?

17 A. Yes.

18 Q. Now, you are now alleging in your second  
19 declaration that you can remove the housing and  
20 manifold together from the chassis of Deane, correct?

21 A. The manifold and the housing together,  
22 yes.

23 Q. Now, in the figures we've looked at a  
24 little bit today for your six of Deane, there is a  
25 spring in that housing, right?

1 A. Yes.

2 Q. When you -- Under your -- or strike that.  
3 When you are alleging that you can remove  
4 the housing and manifold together, those springs  
5 would still be under compression, correct?

6 A. Yes.

7 Q. As that spring would still be in  
8 compression, it would apply -- or would it apply  
9 force on the bottom disk 614b in figure 6 of Deane?

10 A. Yes.

11 Q. So once you take the -- What you're saying  
12 is the housing and manifold together off of the  
13 chassis -- Actually, let me ask it a different way.  
14 Once you take it off the chassis with the spring  
15 under compression, there's no counteracting force on  
16 the bottom of that disk, correct?

17 MR. MASTERS: Object to form. The  
18 question is vague and ambiguous.

19 A. I disagree.

20 Q. There is a counteracting force?

21 A. Yes.

22 Q. And what's the counteracting force?

23 A. Friction.

24 Q. Isn't it true that when you put springs in  
25 compression, you're compressing them enough to

1 overcome that friction?

2 A. Sometimes, but not always.

3 Q. Would it work if it didn't overcome that  
4 friction, if the spring didn't overcome that  
5 friction?

6 MR. MASTERS: Object to form. The  
7 question is vague and ambiguous.

8 A. Well, you didn't ask. But the purpose of  
9 the spring is not to force the unit to disassemble.  
10 The purpose of the spring is to keep the absorbent  
11 immobilized.

12 Q. And to do that, the spring has to  
13 over -- has to overcome the friction you were just  
14 talking about, to serve that purpose, right?

15 A. No.

16 Q. Okay. So when you say that the purpose of  
17 the spring is not to disassemble -- I guess let me  
18 ask it a different way.

19 In Deane, when this manifold and housing  
20 are mounted on the chassis and the spring is in  
21 compression, is the chassis providing a counteracting  
22 force to the spring?

23 A. I don't believe so.

24 Q. So -- And why don't you believe so?

25 A. It's a lengthy explanation.

1 Q. Okay. Maybe I can ask it a different way,  
2 and maybe we'll get to that explanation.

3 What is providing the counteracting force  
4 to the spring?

5 A. Friction.

6 Q. Only friction?

7 A. I believe so, yes. So you didn't ask, but  
8 there are two types of friction. One is kinetic  
9 friction. The other is static friction. Until the  
10 static friction is overcome, there's no motion,  
11 Coulomb, C-O-U-L-O-M-B.

12 Q. Is it your opinion that the restraining  
13 disk, or the 614b, that's what's keeping the  
14 absorbent in the column?

15 A. Pardon me?

16 Q. Is it your opinion that 614b, that disk at  
17 the bottom, that's what's keeping the absorbent  
18 material in the housing?

19 MR. MASTERS: Object to form.

20 You may answer. You can look at Deane if  
21 you wish.

22 BY MR. ATALLAH:

23 Q. Should I say it again?

24 A. Are you referring to a particular diagram?

25 Q. Sure. In figure 6, you see 614b?

1 A. Yes.

2 Q. You're familiar with what that is?

3 A. Yes.

4 Q. Is it your opinion that 614b is what's  
5 keeping the absorbent material in the housing, on the  
6 bottom of the housing?

7 A. Well, it's part of it. But it's not what  
8 I believe exerts the frictional force.

9 Q. So it's your -- So if there were no spring  
10 and no disks, that absorbent material would still  
11 stay in the housing?

12 MR. MASTERS: Objection. Incomplete  
13 hypothetical.

14 You may answer if you can.

15 BY MR. ATALLAH:

16 Q. If friction is sufficient.

17 MR. MASTERS: Same objection.

18 BY MR. ATALLAH:

19 Q. Let me go back to my original question.  
20 If there were no spring and no disks,  
21 would the absorbent stay in the housing?

22 MR. MASTERS: Same objection.

23 A. I believe the end plates -- I think it's  
24 labeled 604 and 606. I'm not certain of those  
25 numbers. They're pointing to the item that I'm

1 thinking of, but I'm not sure in the body of the  
2 patent that that's the way they're defined. But  
3 those plates I believe are press fit onto the ends of  
4 the housing. That's the frictional force that keeps  
5 the unit from opening due to the pressure and force  
6 of the spring.

7 Q. I'll represent to you that in Deane, it  
8 refers to 604. It says the upper end, and 606 is the  
9 lower end in Paragraph 66. Do you see that?

10 A. Yes.

11 Q. And if you take a look back at figure 6  
12 that you were pointing to -- Now, if I understand you  
13 correctly, I think you did say you're just pointing  
14 to the plates that those appear to be pointing to?

15 A. Yes.

16 Q. Now, those plates don't extend across the  
17 entire end of the housing, correct? Do you see --  
18 Let me ask it a better way. Do you see 618a?

19 A. Yes.

20 Q. Okay. 618a, do you know what that is?

21 A. I believe it's a filter.

22 Q. So that's what covers the end of the  
23 housing, right?

24 A. In a way, yes. Partially.

25 Q. I believe in Paragraph 69 of Deane, it

1 describes that filter portion as a fabric or a  
2 screen; is that -- Do you see that?

3 A. Yes.

4 Q. And there's a similar filter, 618b, at the  
5 bottom side of the housing, right?

6 A. Yes.

7 Q. And so it's your opinion that woven  
8 material is enough to counteract the force of the  
9 spring when you take this housing off the chassis?

10 MR. MASTERS: Object to the question. It  
11 misstates prior testimony.

12 You may answer. You may also review Deane  
13 to the extent you feel necessary to answer the  
14 question.

15 BY MR. ATALLAH:

16 Q. Is it your opinion?

17 A. No.

18 Q. So if the fabric there doesn't counteract  
19 the compression from the spring, what does?

20 A. So it's barely possible for me to assemble  
21 the words to explain this. It would be much better  
22 to have a unit here to show you or to at least have a  
23 whiteboard so that I could draw it.

24 But it's -- the structure shows 614b, the  
25 disk. I believe that is designed in such a way to be

1 porous and to hold back the whole beads. The fabric  
2 that's shown, 618a and 618b, that would capture any  
3 dust or fragments of particles that might happen to  
4 flow around it -- around the 614a and 614b, the solid  
5 disks or porous disks. So the disks that -- I'm  
6 sorry. The disk in the bottom, 614b, I believe is  
7 prevented from the passing through the end of the  
8 housing by circular surface, that -- more of a rim  
9 that -- because it's a solid, porous solid, it is  
10 able to withstand the force of the spring and the  
11 weight of the absorbent and prevent the movement the  
12 absorbent downwards.

13 Q. And it's your opinion that the chassis has  
14 nothing to do with that?

15 A. I don't know about nothing. But I believe  
16 that the housing with the ends 604 and 606 in place  
17 can be removed from the chassis and not fly apart due  
18 to the pressure of the spring.

19 Q. The chassis provides some support. You  
20 would at least agree with that?

21 A. Well, certainly it provides not only  
22 support for the housing, but also for the other parts  
23 of the portable oxygen concentrator that are not  
24 shown in this diagram.

25 Q. It also provides some support for the

1 components within the housing, correct?

2 A. I think it really provides support for the  
3 housing itself.

4 Q. Would that include the components within  
5 the housing as well?

6 A. Indirectly, yes.

7 Q. Would you at least agree that it's  
8 possible that the spring is exerting enough force  
9 that the absorbent could fall out the bottom if you  
10 take it off the chassis, without the chassis support  
11 in any way?

12 A. I would say if that happened, it would be  
13 a very poor design.

14 Q. But it could happen?

15 MR. MASTERS: Object to form. Incomplete  
16 hypothetical.

17 You may answer if you can.

18 A. I don't believe it was designed that way.  
19 It could be forced to happen.

20 Q. Well, I'm not asking if it was designed  
21 that way. I'm asking if it could happen given the  
22 hypothetical manner of removing these two -- removing  
23 the manifold and housing under compression as you've  
24 proposed. I'm asking if it could happen.

25 MR. MASTERS: Same objection.

1                   You may answer.

2       A.           I can imagine it happening, but I don't  
3       believe it would happen.

4       Q.           Okay. In Paragraph 23 of your  
5       declaration, you say that the absorbent housing  
6       releasably interfaces with the manifold. Do you see  
7       that?

8       A.           Yes.

9       Q.           But -- If you need to review the Deane  
10      reference, feel free. But Deane doesn't actually say  
11      that those components -- that the housing and  
12      manifold releasably interface, correct?

13      A.           Are you asking me whether the word  
14      "releasably" appears in the Deane patent?

15      Q.           I'm asking you if Deane actually -- Does  
16      Deane explicitly state that these two components, the  
17      manifold and the housing, releasably interface as you  
18      say here?

19      A.           I don't believe so.

20      Q.           It just says that it's mounted, right?

21      A.           I don't know that that word is used  
22      either. But if you say it is. If -- Particularly if  
23      you point me to the place in the Deane patent.

24      Q.           Well, I think in your paragraph -- You  
25      have a citation I think in your paragraph here that

1 says integrated manifold mounted. Do you see that?

2 A. Yes. That is a quote, yes.

3 Q. So it describes it as mounted, not as --

4 A. Yes.

5 Q. Now, sir, you've -- I would assume -- I  
6 shouldn't assume. Have you reviewed Deane in detail?  
7 You spent a lot of time reviewing the Deane reference  
8 in preparing your declaration?

9 A. Probably at least an hour, maybe two  
10 hours.

11 Q. Okay. Now, would you agree that when  
12 Deane wants to describe -- when the Deane reference  
13 itself wants to describe components that are  
14 removably attached to each other, it explicitly does  
15 so?

16 MR. MASTERS: Object to form.

17 A. I do not think that it says phrases like  
18 that, no.

19 Q. Sir, I'm going to turn you to Paragraph 57  
20 of Deane. If you want to read that to yourself, let  
21 me know when you're done.

22 MR. MASTERS: Which paragraph was that?

23 MR. ATALLAH: 57 in Deane.

24 A. Okay.

25 Q. So if we're looking at Paragraph 57, a few

1 lines down, do you see where it says: The chassis  
2 202 is removably attached to a base 208 of the  
3 housing 206. Do you see that?

4 A. Yes.

5 Q. So here when Deane wants to describe two  
6 components being removably attached, it does so  
7 explicitly, correct?

8 MR. MASTERS: Object to the form of the  
9 question.

10 You may answer.

11 A. Well, I would say that Deane does use the  
12 phrase, but I wouldn't say that necessarily every  
13 time something is removable Deane defines it as  
14 removable.

15 Q. But Deane does say here -- Deane  
16 explicitly describes the chassis being removably  
17 attached to a base, right?

18 A. Yes.

19 Q. And let's take a look at Paragraph 58. If  
20 you want to just read the first sentence there. Let  
21 me know when you're done.

22 A. Okay.

23 Q. Paragraph 58 says: As shown in figure 3,  
24 the components and the housing 206 are structurally  
25 supported by the chassis 202, and the chassis 202 is

1 removably attached to the shell 204. Do you see  
2 that?

3 A. Yes.

4 Q. So here, again, in relating the chassis  
5 and the shell, Deane is explicitly describing the  
6 chassis as removably attached to the shell, correct?

7 A. Yes.

8 Q. Nowhere in Deane does it describe the  
9 manifold as removably attached to the housing with  
10 the absorbent beds as we have seen Deane do here with  
11 regards to other components, correct?

12 A. Yes.

13 Q. In your declaration -- Let's see. Sir,  
14 I'm going to hand you the 614 patent that's at issue  
15 here. And that is Exhibit 1001 to the IPR. And I  
16 think this one I can confidently say I know you've  
17 seen.

18 A. Yes.

19 Q. And if you could turn to the claims for  
20 me, please. So if we take a look at claim one. And  
21 I'm going to -- there's a number of what I'm going to  
22 call clauses for a lack of a better way. But  
23 starting with "a separation cartridge" in claim one  
24 and ending with "absorbed nitrogen," do you see that  
25 clause?

1 A. Yes.

2 Q. Now, claim one says that: Separation  
3 cartridge comprising an inlet oriented in a second  
4 direction opposite the first direction.

5 A. Oh.

6 Q. I'm starting about halfway down the  
7 clause. So in that clause it does say: The  
8 separation cartridge comprising an inlet oriented in  
9 a second direction opposite the first direction, an  
10 outlet oriented in the second direction and a bed of  
11 absorbent material configured to preferentially  
12 absorb nitrogen. Did I read that right?

13 A. Yes.

14 Q. So the separation cartridge that is  
15 selectively removable from -- I'm sorry. The  
16 separation cartridge is selectly removable from a  
17 receptacle, right, in this claim?

18 A. Yes.

19 Q. Now, the inlet that we just talked about  
20 of the separation cartridge, that provides fluid to  
21 the absorbent material, correct?

22 A. Did you say the inlet?

23 Q. Yes.

24 A. Yes.

25 Q. And then the outlet would expel that fluid

1 from the bed, from the absorbent?

2 A. Yes.

3 MR. ATALLAH: This is the one that I don't  
4 have an extra copy. It's his original declaration.

5 MR. MASTERS: I have it.

6 BY MR. ATALLAH:

7 Q. I'm going to hand you Exhibit 1003 in the  
8 IPR. It's quite a stack. But is that your first  
9 declaration in this case -- in this IPR?

10 A. Hold on.

11 Q. Go ahead.

12 A. Okay. Yes.

13 Q. And we had a little bit of back and forth  
14 there. So Exhibit 1003, that is your first  
15 declaration in this IPR?

16 A. Yes.

17 Q. If you wouldn't mind just turning to  
18 Paragraph 315, please.

19 A. Okay.

20 Q. Part of -- At the end of Paragraph 315,  
21 there's a set of annotated figures from the Deane  
22 reference. Do you see that?

23 A. Yes.

24 Q. Now, so in these figures, you are pointing  
25 out where you believe the inlet and outlet in the

1 Deane reference would be; is that right?

2 A. Yes.

3 Q. And it looks like -- So we have -- So the  
4 inlet would be on the topside of -- by topside, I'm  
5 saying the side opposite where the figure 6 wording  
6 is. So the topside of the housing, that's where the  
7 inlet would be?

8 A. Yes.

9 Q. And that's -- and the fluid would come  
10 in -- I think you called it a feed tube.

11 A. Yes.

12 Q. It would come in. It would come down that  
13 feed tube, and then it would turn into the bed?

14 A. Yes.

15 Q. And then the outlet is at that same end as  
16 the inlet?

17 A. Yes.

18 Q. At the top?

19 A. Yes.

20 Q. Now, sir, in your current declaration, you  
21 are not alleging that the chassis is part of  
22 the -- what you're calling the separation cartridge  
23 in Deane, correct?

24 A. That's correct.

25 Q. Okay. And then I think we talked about it

1 a few minutes ago. The -- You're now suggesting that  
2 the manifold and the housing 602 of Deane would be  
3 taken off the chassis and removed? That's your  
4 opinion now, right?

5 A. That they can be, yes.

6 Q. That they can be. And I think we talked  
7 about the spring is still under compression, correct?

8 A. Yes.

9 Q. So the manifold is still attached to the  
10 housing when you're doing that?

11 MR. MASTERS: Object to the form.

12 You may answer.

13 A. I think it could be, yes.

14 Q. Is it your opinion that it is or it isn't?

15 A. I think it depends on what the purpose,  
16 you know, of the disassembly is, and who is doing it.  
17 In other words, it would be a choice.

18 Q. If the manifold were not attached to the  
19 housing and you pulled up on the manifold, the  
20 housing wouldn't come with it, right?

21 A. Do you mean if there were no fasteners  
22 involved?

23 Q. My question before was: In your opinion,  
24 when you're saying you're removing the housing and  
25 the manifold together --

1 A. Yes.

2 Q. -- we said the spring is still under  
3 compression when you're doing that, correct?

4 A. Yes.

5 Q. So those two components are still attached  
6 to each other, correct?

7 A. Yes.

8 Q. And you said it would depend on what  
9 you're disassembling for just now I think? Is that  
10 right?

11 A. The purpose, yes, if it's to replace the  
12 absorbent, for example, or to clean it, there are  
13 different things that could be done by removing the  
14 manifold and the housing either together or  
15 separately. And it would depend on what the purpose  
16 is.

17 Q. Sir, now -- Okay. So you have the -- So  
18 in your current declaration, when you say that  
19 the -- you say you're removing those components  
20 together under compression with the spring off of the  
21 chassis; is that a fair representation?

22 A. Yes.

23 Q. When you remove those two components off  
24 of the chassis, the inlet that you've identified can  
25 no longer provide fluid to the absorbent bed,

1 correct?

2 A. I'm not sure what you're --

3 Q. Sure. Let me clarify it.

4 You -- In your hypothetical or in your  
5 opinion, when you've pulled those two components out,  
6 the manifold and the housing --

7 A. Yes.

8 Q. -- you've identified a feed tube as the  
9 inlet, correct?

10 A. Yes.

11 Q. If I were to have fluid going through that  
12 inlet at that point, there's no way for it to get to  
13 the absorbent bed, right?

14 A. You mean because the chassis contains the  
15 part that makes the gas that's flowing in the tube to  
16 turn and flow upwards through the --

17 Q. There's nothing to turn the gas?

18 A. That's right.

19 Q. Into the --

20 A. I believe that's in the chassis.

21 Q. And at that point -- Okay. So that was my  
22 question, which is: When you remove the housing and  
23 the manifold, as you've suggested in your  
24 declaration, that inlet no longer has a way to  
25 provide fluid -- what you're calling the inlet, that

1 feed tube, no longer has a way to provide fluid to  
2 the absorbent bed, correct?

3 A. Correct.

4 Q. At that point, the housing has not  
5 separated in any way from the manifold, correct?  
6 When you're taking out, they're still together?

7 A. Yes.

8 Q. Now, so once you have -- or as soon as you  
9 have -- Strike that.

10 As soon as you have removed the housing  
11 manifold combination you've talked about, you no  
12 longer have a separation cartridge with an inlet and  
13 outlet at the same end, correct?

14 A. I disagree.

15 Q. Well, there's still an inlet to the bed,  
16 right? It's just at the opposite end, correct?

17 MR. MASTERS: Object to the form of the  
18 question.

19 A. I don't know whether I can refer to  
20 figure, say, 7A.

21 Q. Sure. And you're talking about 7A in  
22 Deane?

23 A. Yes. And also figure 6. They're shown  
24 together on this Page 139.

25 Q. You're talking about your original

1 declaration?

2 A. Yes. So it points to the inlet in both of  
3 those diagrams.

4 Q. Correct. But that -- We talked earlier an  
5 inlet has to provide fluid to the absorbent bed.  
6 That's what it does, right?

7 MR. MASTERS: Objection. Mischaracterizes  
8 prior testimony.

9 BY MR. ATALLAH:

10 Q. Is that what an inlet does in this -- In  
11 the 614 patent, is that what the inlet does?

12 A. So we're switching to 614?

13 Q. Or in Deane. What you're calling the feed  
14 tube, that feed tube provides fluid to the absorbent?

15 MR. MASTERS: Object to the form.

16 BY MR. ATALLAH:

17 Q. Let's back up. Let's slow down. In the  
18 614 patent, the inlet that we talked about earlier,  
19 that provides fluid to the absorbent bed, correct?

20 A. Would you like to suggest a diagram?

21 Q. I'm asking you if that's your  
22 understanding of what the inlet of the 614 patent  
23 does.

24 A. Generally, yes.

25 Q. And in the Deane reference that we were

1 just talking about, what you identify as an inlet,  
2 that feed tube, right, that is to provide, when it's  
3 installed, fluid to the absorbent bed, correct?

4 A. Yes.

5 Q. When you take the housing and manifold off  
6 of the chassis as you suggest, what you're calling  
7 the inlet, that feed tube can no longer provide fluid  
8 to the absorbent bed at that point, correct?

9 A. If by that you mean -- if you, say,  
10 provided gas to the inlet at the top, it  
11 would -- yes, the gas would flow downwards, out and  
12 not contact the absorbent.

13 Q. Right. It would go out the bottom of the  
14 feed tube into the atmosphere?

15 A. Yes, sir.

16 Q. When I remove those two components -- or  
17 if I remove those two components, the manifold and  
18 the housing, right, there's -- And let's assume for a  
19 minute that the absorbent doesn't fall out the  
20 bottom. There still would be an opening at the  
21 bottom end of the housing where you could send fluid  
22 up, correct?

23 A. Yes.

24 Q. To contact the absorbent?

25 A. Yes.

1 Q. So getting kind of back to the question I  
2 asked before: At that point, once you remove the  
3 housing and manifold off the chassis, the only inlet  
4 to provide fluid to the absorbent is at the opposite  
5 end of the outlet, correct?

6 A. Because it's been disassembled, yes.

7 Q. Is that right?

8 MR. MASTERS: Objection. Asked and  
9 answered.

10 A. Go ahead?

11 Q. Yeah.

12 A. So it's been disassembled so that the part  
13 that's required to take the inlet -- the gas from the  
14 inlet tube into the absorbent bed is now part of the  
15 chassis.

16 Q. So I guess -- Maybe I can ask it a  
17 different way. Once you remove the housing and  
18 manifold, there's an opening at the bottom where you  
19 could send fluid to the absorbent, correct?

20 A. That's not the way it's designed.

21 Q. Well, I'm asking because this is -- you're  
22 suggesting removing the manifold and housing off of  
23 the chassis. So I'm just asking: When you do  
24 that -- I think -- maybe I already have the answer.

25 But you don't dispute that when you do

1 remove it, that feed tube will no longer provide  
2 fluid to the absorbent material?

3 A. Certainly. The portable oxygen  
4 concentrator will no longer work.

5 Q. So now, and at that point, when you have  
6 taken the housing and manifold off of the chassis,  
7 the housing has not been separated from the manifold,  
8 correct? You're taking them off first?

9 A. Yes.

10 Q. Okay. Now, sir, in the 614 patent, if you  
11 could take a look at -- Let's take a look at figure  
12 15 as well as figure 7, those two figures, please.  
13 Obviously, I'm asking you some questions about this.  
14 Feel free to refer to anything you need in the  
15 patent.

16 A. Okay.

17 Q. But I'm going to point you to those for  
18 the next couple questions. Let me know when you take  
19 a look at those.

20 A. Okay. I've taken a look.

21 Q. Now, those figures do show the separation  
22 cartridge we've been talking about? The separation  
23 cartridge of the 614 patent?

24 A. Yes.

25 Q. And you would agree with me that when the

1 separation cartridge there in the 614 patent is  
2 removed, the inlet can still provide fluid to the  
3 absorbent material within the columns, correct?

4 MR. MASTERS: Object to the form of the  
5 question. Incomplete hypothetical.

6 You may answer if you can.

7 A. To be honest, I don't see the exact flow  
8 path.

9 Q. Does the configuration of the -- Well,  
10 let's put it this way. You don't disagree that the  
11 separation cartridge in the 614 patent has an inlet  
12 that provides fluid to the bed, correct?

13 A. Would you care to give me a number?

14 Q. 132 I believe are identified as the  
15 inlets.

16 A. So there are three inlets.

17 Q. In figure 15, for example, yes.

18 A. Yes.

19 Q. So you don't -- In the -- I think we  
20 talked about this earlier. In the 614 patent, the  
21 inlets provide fluid to the absorbent material?

22 A. Yes.

23 Q. Okay. And the flow path of the separation  
24 cartridge in the 614 patent doesn't change when the  
25 separation cartridge is removed, correct? Maybe I

1 can ask it a better way.

2 The separation cartridge of the 614 patent  
3 can be removed without breaking the flow path between  
4 inlet and the absorbent material? That flow path  
5 doesn't change, correct?

6 MR. MASTERS: Object to the form.

7 You may answer if you can.

8 A. I disagree. You spoke about an inlet, but  
9 then figure 15 clearly shows three inlets.

10 Q. So let's pick one. Pick one of the  
11 inlets. Does that inlet -- Does the flow path of  
12 that inlet change when the separation cartridge is  
13 removed?

14 A. Well, I don't know for sure, but I believe  
15 that the gas must come into the cartridge either by  
16 three separate tubes, one each for these 132A, B and  
17 C, or perhaps it comes in through one tube and then  
18 splits into three. I'm not sure which of those that  
19 it's --

20 Q. Okay. If we take a look at 132A, for  
21 example --

22 A. Yes.

23 Q. -- that would -- there would be a way for  
24 fluid to come in 132A and contact absorbent material  
25 within the cartridge?

1 A. Yes.

2 Q. And when I remove the cartridge, that flow  
3 path still exists, correct?

4 A. Well, that's what I'm saying. I don't  
5 know whether the gas -- the feed air, compressed air  
6 coming in comes in as three separate tubes or as one  
7 and then it splits into three at the cartridge.

8 Q. There are three inlets shown, correct?

9 A. In the cartridge.

10 Q. Okay. And each one is an inlet, correct?

11 A. But it doesn't show the connection to the  
12 remainder of the apparatus.

13 Q. But we agree it goes -- it does provide  
14 fluid to the absorbent bed, correct?

15 MR. MASTERS: Object to form.

16 A. Three inlets, yes.

17 Q. In figure 16, there's also three beds as  
18 well?

19 A. Yes.

20 Q. Okay. So, again, I'm not asking you  
21 if -- What I'm asking is: Does the configuration of  
22 the inlet or inlets change once -- when -- simply by  
23 removing the cartridge?

24 MR. MASTERS: Object to the form.

25 Incomplete hypothetical. But you may answer if you

1 can.

2 A. There's no diagram that I know of in the  
3 614 patent that shows the path of the compressed air  
4 going into the absorbers such as figure 7 I think it  
5 is in the Deane patent.

6 Q. Sir, in -- in figure 15 -- Okay. Sir,  
7 in --

8 MR. MASTERS: We've been going for over an  
9 hour if this is a good time to break.

10 MR. ATALLAH: Can I have two minutes and  
11 we'll break?

12 MR. MASTERS: Sure.

13 BY MR. ATALLAH:

14 Q. Sir, you also reviewed a set of  
15 contentions in this IPR per your Appendix 2. I'm  
16 going to hand you Exhibit 1076 real quickly.

17 MR. ATALLAH: Do you have this one?

18 MR. MASTERS: If you have an extra one.

19 BY MR. ATALLAH:

20 Q. You've seen that before?

21 A. I believe I glanced at it before, but I  
22 haven't studied it.

23 Q. Well, you rely on it in your declaration,  
24 correct?

25 A. Yes.

1 Q. And, sir, the -- in the GCE product, the  
2 cartridge, likewise, when it's taken out, the  
3 orientation of the flow path of the inlet does not  
4 change, correct?

5 MR. MASTERS: Object to the form of the  
6 question. It's outside his scope of the notice.

7 BY MR. ATALLAH:

8 Q. Let's back up. Does the -- Is that  
9 your --

10 A. Well, this pertains to the 628 patent.

11 Q. And I'm not asking about the 628 patent  
12 here. I'm just asking about the image shown, the  
13 product shown because I would assume you would have  
14 reviewed this document.

15 A. Which figure?

16 Q. Let's take a look at -- Actually, just  
17 pick one. Page 6. And I'm not asking you  
18 if -- You're familiar with this product?

19 A. Have I ever seen one, no.

20 Q. So you're not familiar with it?

21 A. No.

22 Q. Then we'll leave it alone. Sir, going  
23 back to the Deane reference. We can put that aside.  
24 If you haven't seen it, then that's fine.

25 A. I've seen the figures.

1 Q. You glanced at the document.

2 A. But not the actual apparatus.

3 Q. Fair enough. Sir, in the Deane reference,  
4 under your proposal of, again, removing the manifold  
5 and housing together --

6 A. Yes.

7 Q. Okay. At that point, you no longer have  
8 the separation cartridge to be removed from a  
9 receptacle with all of the required features of the  
10 separation cartridge in claim one, correct?

11 A. I disagree.

12 Q. Why do you disagree?

13 A. It pertains to the definition of the word  
14 cartridge or separation cartridge.

15 Q. Well, my -- I'm just asking -- We talked a  
16 little bit earlier in claim one it says separation  
17 cartridge has to have an inlet and outlet oriented --  
18 I'm paraphrasing here -- oriented in the same  
19 direction. And I can read the exact language if  
20 you'd like. But do you agree with that?

21 MR. MASTERS: Object to the form to the  
22 extent it calls for a legal conclusion.

23 You may answer.

24 A. Can you tell me where --

25 Q. Sure. In claim one of the 614 patent,

1 what we read earlier, the inlet oriented in the  
2 second direction opposite the first direction, an  
3 outlet oriented in the second direction. Do you see  
4 that?

5 A. Go ahead.

6 Q. So the separation cartridge as claimed has  
7 an inlet oriented in a second direction opposite the  
8 first direction, an outlet oriented in the second  
9 direction, right?

10 A. Yes.

11 Q. So the inlet and outlet are both oriented  
12 in second direction, right?

13 A. Yes.

14 Q. And so, again, my question is: Under your  
15 proposal of removing the manifold and housing  
16 together in Deane, at that point, once -- when  
17 they're removed, you no longer have the separation  
18 cartridge as claimed in claim one with all of the  
19 features including the inlet and outlet both oriented  
20 in the second direction, correct?

21 A. I disagree. It's been disassembled.

22 Q. But you would agree when it is assembled,  
23 you can't move that housing in the first direction,  
24 correct? You can't move it down because of the  
25 chassis, correct?

1 A. I'm sorry. You can't move the cartridge  
2 down?

3 Q. So the chassis blocks you from -- Well,  
4 let me back up.

5 So why do you -- You said you disagree  
6 with the question I had just asked before, which is:  
7 When you have the -- When you -- Under your proposal  
8 of removing the housing and manifold of Deane  
9 together, once you do that, you no longer have a  
10 separation cartridge that has all of the recited  
11 features of claim one including the inlet and outlet  
12 both oriented in the second direction. You said you  
13 disagree with that. Why do you disagree with that?

14 A. Because it's been disassembled.

15 Q. At that point -- I believe you testified  
16 earlier the housing and manifold have not been  
17 separated from the each other, correct?

18 MR. MASTERS: Object to the form.  
19 Mischaracterizes prior testimony.

20 A. That's the form as you described it, yes.

21 Q. And you are suggesting that you remove the  
22 housing and manifold together so that, in your  
23 opinion, you can then separate them as the claim  
24 suggests -- you can remove the -- the claim -- the  
25 cartridge as the claim suggests in the first

1 direction, right? That's why you're proposing this  
2 removal of the housing and manifold here together,  
3 right? I'll back up.

4 A. I didn't say that.

5 Q. So you're saying you disagree with my  
6 previous question because it's been disassembled?

7 A. Yes.

8 Q. But you would agree at that point of  
9 disassembly, you no longer have a separation  
10 cartridge with an inlet and outlet oriented in the  
11 same direction?

12 MR. MASTERS: Object to form.

13 A. I think what I'm struggling with is that  
14 as I read claim one of the 614 patent, I understand  
15 that the separation cartridge exists and that  
16 features of the separation cartridge are then  
17 described. That is the inlet and outlet. And, to  
18 me, the separation cartridge consists of the  
19 absorbent columns. And perhaps it includes the tubes  
20 and so on to direct gas into and out of the absorbent  
21 but -- as opposed to the receptacle which then is  
22 more used for flow distribution.

23 Q. And maybe we're just talking past each  
24 other. But I'm just trying to understand. You would  
25 agree that in claim one, the separation cartridge

1 that has to be selectively removable from a  
2 receptacle is the separation cartridge that the claim  
3 also says has an inlet and an outlet oriented in the  
4 second direction, right?

5 MR. MASTERS: Object to the extent it  
6 calls for a legal conclusion.

7 You may answer.

8 A. So the separation cartridge is selectively  
9 removable and -- comprising an inlet oriented in the  
10 second direction opposite the first direction and an  
11 outlet oriented in the second direction in the bed of  
12 absorbent material. So what I'm struggling with is  
13 the word comprising, whether that could be considered  
14 is defined as or whether it consists of the following  
15 parts. I view it as saying it exists of the  
16 following parts, the word comprising.

17 Q. So I'm not sure I got an answer to my  
18 question, so I'm just going to ask it again.

19 So I'm just trying to understand: You  
20 would agree that in claim one the separation  
21 cartridge that has to be selectively removable from a  
22 receptacle is the separation cartridge that the claim  
23 also says has an inlet and outlet oriented in a  
24 second direction, correct?

25 MR. MASTERS: Objection. Asked and

1 answered.

2 A. I view those as parts of the separation  
3 cartridge because it says the word "comprising."

4 Q. The inlet and outlet?

5 A. Yes.

6 Q. So then you would agree with my statement  
7 that that -- those parts are part of the separation  
8 cartridge that has to be removable from the  
9 receptacle?

10 MR. MASTERS: Object to the extent it  
11 calls for a legal conclusion.

12 BY MR. ATALLAH:

13 Q. You can go ahead.

14 A. What he said.

15 Q. Is that your understanding?

16 A. I think the word comprising is the one  
17 that is -- in my obstacle here. If it means "is  
18 defined as," which is apparently the way you're  
19 explaining it, if it means "consists of," then it  
20 means what I'm describing it as.

21 Q. Okay. Let me ask it again with this  
22 caveat. If comprising means includes --

23 A. Consists of. Okay. I agree with that.

24 Q. So -- And I'll ask the full question. If  
25 comprising in claim one means includes, you would

1 agree that in claim one, the separation cartridge  
2 that has to be -- that is selectively removable from  
3 a receptacle is a separation cartridge that the claim  
4 also says has an inlet and outlet oriented in the  
5 second direction?

6 MR. MASTERS: Object to the form of the  
7 question. Calls for a legal conclusion.

8 A. I think yes.

9 MR. ATALLAH: Okay. All right. Take that  
10 break.

11 (Recess taken.)

12 BY MR. ATALLAH:

13 Q. Mr. Knaebel, in your second  
14 declaration -- in the Deane reference, there are two  
15 compartments -- you're familiar with that -- within  
16 the shell?

17 MR. MASTERS: Object to the form.  
18 You may answer.

19 A. I believe so.

20 Q. And one compartment contains heat  
21 producing components?

22 A. Yes.

23 Q. And the other contains non-heat producing  
24 components?

25 A. Yes.

1 Q. Or -- Is that a fair characterization?

2 A. It's fair.

3 Q. Now, you have some discussion in your  
4 declaration about the circuit board in Deane. Are  
5 you familiar with that?

6 A. Yes.

7 Q. That circuit board actually in Deane  
8 extends across both compartments, correct?

9 A. I'm not positive, but I -- it could, yes.

10 Q. Does Deane describe it that way?

11 A. I don't recall that wording. But if you  
12 point me to the place in Deane, I'll be glad to  
13 verify.

14 Q. So, for example, in Paragraph 87, is that  
15 how Deane describes it?

16 A. Yes.

17 Q. So -- so you've also opined elsewhere in  
18 your second declaration that either intervening  
19 parts, I think you called them, such as the circuit  
20 board can be also removed to take out the combination  
21 of the manifold and housing or that it can be removed  
22 with the manifold and housing. Do I have that right,  
23 or is that your opinion?

24 A. I believe I wrote that, but I don't  
25 believe that I've checked it with the actual

1 equipment.

2 Q. So you're not sure if that could actually  
3 work?

4 A. I haven't verified it, but it looked to me  
5 from the diagram as though it were possible.

6 Q. The diagram being Deane?

7 A. Yes.

8 Q. And are you referring to -- And I guess I  
9 should have asked it a different way. When you  
10 say -- when you say you don't believe you checked,  
11 are you referring to removing the circuit board from  
12 the manifold, or are you referring to trying to  
13 remove manifold, circuit board, housing all together?

14 A. The all together version.

15 Q. But you are -- It is your opinion you  
16 could just remove the circuit board separately from  
17 the manifold?

18 A. Yes.

19 Q. What does the -- what does the circuit  
20 board do in Deane?

21 A. Well, I believe its main function is to  
22 deliver the pulses of electrical current to the  
23 solenoid valves that basically allow the gas to go in  
24 the different directions.

25 Q. And if you take a look at figure 8.

1      Actually not figure 8. Figure 5.

2      A.            Okay.

3      Q.            That has -- That shows that circuit board  
4      there I believe.

5      A.            Yes.

6      Q.            And that's in Deane? I'm referring to,  
7      figure 5 of Deane?

8      A.            Yes.

9      Q.            Now, if you were to remove that circuit  
10     board, it is fairly difficult to put that board back  
11     on, correct?

12                MR. MASTERS: Object to form.

13                You may answer.

14     BY MR. ATALLAH:

15     Q.            Maybe say it better. It would be time  
16     consuming to put the board back on?

17                MR. MASTERS: Same objection.

18     A.            I don't know the answer.

19     Q.            You would agree there are -- it appears at  
20     least in figure 5 this one has nine valves on the  
21     -- there's nine valves in the manifold. Do you see  
22     those?

23     A.            Yes.

24     Q.            And each of those have two electrical  
25     contacts that have to mate with the pins of the

1 circuit board?

2 A. Yes.

3 Q. And that would take a little bit of time  
4 to make sure it's aligned correctly, correct?

5 A. In my opinion, you would align two of  
6 them; and then the rest of them would line up.

7 Q. But you need to be very careful to get  
8 those aligned correctly or it won't work, right?

9 A. You don't want to bend any of it.

10 Q. Does that happen?

11 A. I've never bent one.

12 Q. But other technicians or other persons of  
13 skill have I'm assuming.

14 MR. MASTERS: Objection.

15 A. I don't know.

16 Q. Are you aware of the removal of a circuit  
17 board bending pins?

18 MR. MASTERS: Objection.

19 A. Do you mean for, say, an Inogen?

20 Q. Let's back up. You're aware of electrical  
21 contacts of a circuit board that's been made with  
22 pins within a POC, correct?

23 A. Well, as shown here, yes.

24 Q. In your experience, have the pins bent  
25 when the circuit board is removed?

1 A. I have not heard of such an event, no.

2 Q. Sir, now, Deane actually -- Do you see  
3 Paragraph 95 of Deane?

4 A. I'm there.

5 Q. Paragraph 95 of Deane describes kind of at  
6 the end of the paragraph there, a removable hatch  
7 1620 that provides simplified access to the circuit  
8 board 1314 inside the housing 206. Do you see that?

9 A. I see that, yes.

10 Q. So Deane actually provides a hatch so you  
11 can get to the circuit board without removing it,  
12 right?

13 A. Are you referring to a specific diagram?

14 Q. Well, I think this -- this paragraph  
15 refers to figure 16C. But my question was: So Deane  
16 actually provides a hatch or discloses a hatch so you  
17 can get to the circuit board without removing it,  
18 right?

19 A. Yes.

20 Q. Sir, when -- we've talked a little bit  
21 about the shell in Deane today.

22 A. Yes.

23 Q. When the shell in Deane is removed, the  
24 device is still operational, correct?

25 A. Yes.

1 Q. In Paragraph 32 of your declaration --

2 A. First one.

3 Q. -- your -- I'm sorry. In Paragraph 32 of  
4 your second declaration.

5 A. Okay.

6 Q. Do you see the last sentence of that  
7 paragraph? You wrote: Otherwise absorbent 612 would  
8 leak pre-installation or during service and  
9 replacement of housing 602.

10 A. Yes.

11 Q. Now, during pre-installation, the  
12 absorbent housing is not under compression, correct?

13 A. It depends on what stage of  
14 pre-installation you refer to.

15 Q. Let me ask a better question. It's not  
16 under compression by the spring, correct?

17 A. It depends on what stage of  
18 pre-installation you're referring to.

19 Q. So there's a time of pre-installation  
20 where it wouldn't be under compression and a time  
21 where it would be?

22 A. Well, for example, if one were building  
23 this from the original parts in the factory, one  
24 would load the absorbent, then place the disk, the  
25 absorbent containing disk and then the spring and

1 then the top plate or end.

2 Q. Okay.

3 A. And then seal it, in other words, press  
4 fit.

5 Q. You have an annotated figure in Paragraph  
6 26 of your second declaration. Do you see that?

7 MR. MASTERS: 126?

8 MR. ATALLAH: Yes.

9 A. Yes.

10 Q. And in that annotated figure, you would  
11 agree that there's no figure 8 that actually shows  
12 the manifold and the housing, correct? Those are two  
13 different figures in Deane?

14 A. Are you referring to the green part and  
15 the orange part, the green part being a separate  
16 figure than the -- figure 6?

17 Q. Yes.

18 A. Yes. That's true.

19 Q. So you removed the reference to figure 8  
20 in this annotation, right?

21 A. It looks like the reproduction of it.

22 Q. But you removed the reference to figure 8  
23 in this figure where you're trying to show a  
24 removable direction?

25 A. That was a little bit of an oversight.

1 Q. Now, in the 614 patent claim one --

2 A. 614 claim one?

3 Q. Yes. That clause we've been talking about  
4 starts with -- in the clause starting "with a  
5 separation cartridge," it starts with: A separation  
6 cartridge selectively removable from a receptacle by  
7 movement. Do you see that?

8 A. Yes.

9 Q. And if I understand your annotated figure  
10 in Paragraph 126 of your second declaration, you are  
11 alleging that movement of the manifold away from a  
12 stationary housing, which you allege is the  
13 separation cartridge, would meet the limitations of  
14 claim one, correct? Am I understanding that  
15 correctly?

16 A. I'm not sure which -- Are you referring to  
17 I, II or III?

18 Q. I'm just asking: Is it your position that  
19 the limitations of claim one of the 614 patent are  
20 met by movement of the manifold away from a  
21 stationary housing which I believe you're saying is  
22 the separation cartridge? Is that your opinion?

23 A. Yes.

24 Q. So it -- In your opinion, it doesn't  
25 matter in that claim says the separation cartridge

1 moves it's still met by separation cartridge being  
2 stationary?

3 A. The word "relatively" is the keyword there  
4 I believe.

5 Q. Relatively?

6 A. Hold on. Relative. Excuse me.

7 Q. Do you disagree that claim one says that  
8 the separation cartridge is selectively removable  
9 from the receptacle by movement?

10 MR. MASTERS: Object to the form. Calls  
11 for a legal conclusion.

12 BY MR. ATALLAH:

13 Q. Do you disagree with that?

14 A. I think you read it correctly, yes.

15 Q. So, again, just so I have it clear, the  
16 claim says a separation cartridge selectively  
17 removable from a receptacle by movement; but in your  
18 opinion, claim one can be met by a separation  
19 cartridge that is, in your words, stationary as said  
20 in Paragraph 126 of your declaration.

21 MR. MASTERS: Object to the form to the  
22 extent it calls for a legal conclusion.

23 You may answer if you can.

24 BY MR. ATALLAH:

25 Q. Do I have that right?

1 A. If there were a period where you stopped  
2 speaking about what the claim says, I would agree  
3 with you, but it goes on and says "relative."

4 Q. Sir, you're familiar with the 628 patent?

5 A. Somewhat.

6 Q. And that's an exhibit you relied on in  
7 this IPR?

8 A. The patent?

9 Q. Yes.

10 A. Yes.

11 Q. And the claims of the 628 patent also cite  
12 a receptacle; is that right?

13 A. I believe so.

14 Q. And you've opined a little bit about what  
15 the construction of receptacles should be in this  
16 IPR, correct?

17 A. Well, I don't know if I described how it  
18 should be fabricated. But I tried to explain what it  
19 means to me, yes.

20 Q. And you have offered the same construction  
21 for receptacle in the 628 patent as you did in the  
22 614 patent, correct?

23 MR. MASTERS: Object to the extent it's  
24 calling into play a patent that's not at issue in  
25 this case. He's only here in reference to this IPR

1 in the 614 patent.

2 MR. ATALLAH: 628 is an exhibit in this  
3 IPR, so I think it's well within bounds.

4 MR. MASTERS: Well, I disagree. It's  
5 not -- He didn't offer any construction of the 628  
6 patent in this case.

7 BY MR. ATALLAH:

8 Q. Okay. You've offered the same  
9 construction for receptacle in the 628 patent as you  
10 did for the 614 patent, correct?

11 MR. MASTERS: Same objection.  
12 You may answer if you can.

13 A. Yes.

14 Q. In fact, GCE, the company you're here on  
15 behalf of, offered multiple constructions that are  
16 the same for that term receptacle across both patents  
17 in the related district court litigation, correct?

18 A. I only reviewed that document briefly.

19 Q. But is that your understanding?

20 MR. MASTERS: Objection. Calls for  
21 speculation.

22 A. I wouldn't be able to speak about it.

23 Q. I'm going to show you what was submitted  
24 as GCE Exhibit 1073 in this IPR.

25 MR. ATALLAH: Do you have that one?

1 MR. MASTERS: I don't think so. If you  
2 have an extra one, I'll take it.

3 (Discussion held off the record.)

4 BY MR. ATALLAH:

5 Q. If you go to Page -- It's -- Do you see  
6 the labeling at the bottom right of every page?

7 A. Yes.

8 Q. So it's labeled as Page 29 of the exhibit.  
9 It's actually Page 23 of the underlying document.  
10 But do you see that?

11 A. Yes.

12 Q. Okay. So do you see here that GCE has  
13 proposed the same construction for receptacle across  
14 both patents, the 628 and the 614?

15 MR. MASTERS: Same objection.

16 You can answer if you can.

17 A. Are you asking me is this verbatim as --

18 Q. No. I'm asking you: Is your  
19 understanding from this document that GCE has  
20 proposed the same construction or constructions for  
21 the term receptacle to apply to both the 628 and 614  
22 patents?

23 A. I'd say they're similar, yes. They may be  
24 identical.

25 Q. And I'm not -- I think what I'm asking is

1 not -- All right. Let me back up. In this document,  
2 there are two different constructions here, correct?

3 A. Do you mean --

4 Q. That GCE proposes.

5 A. Yes. A and B.

6 Q. I'm not asking about those two in  
7 particular. What I'm asking is: Those constructions  
8 are what GCE is proposing are applicable for the term  
9 receptacle for both patents, the 628 and the 614,  
10 correct?

11 A. Again --

12 Q. Ignoring which one is correct. This is  
13 GCE's proposal for the term receptacle for both  
14 patents; is that your understanding?

15 A. I'm not as familiar with what GCE is  
16 proposing as what I wrote, for example, or what's in  
17 the Deane patent or the 614 patent.

18 Q. Okay. So -- And I think you said a minute  
19 ago: At least you are applying the same  
20 understanding of the term receptacle across both  
21 patents?

22 MR. MASTERS: Objection. 628 is not  
23 involved.

24 BY MR. ATALLAH:

25 Q. Correct.

1 A. It's not incorrect. So, yes, that's  
2 correct.

3 Q. So in doing that -- in doing that, you've  
4 applied the same meaning of receptacle to both the  
5 628 and the 614 patent, correct?

6 A. Yes. But I'm not here to talk about the  
7 628 patent.

8 Q. I understand your attorney has been saying  
9 that for the last five minutes. But my question is:  
10 You're applying the same meaning to receptacle for  
11 those two patents, correct?

12 MR. MASTERS: Same objection.

13 A. Yes.

14 Q. Is it your understanding that -- or is it  
15 your opinion -- Strike that.

16 Is it your opinion that your understanding  
17 of other patents in the family of the 614 patent is  
18 not relevant to this proceeding?

19 MR. MASTERS: Objection. Lacks  
20 foundation. Calls for a legal conclusion.

21 A. I would not have said that, no.

22 Q. Okay. I'm going to point you to your  
23 second declaration. Paragraph 156 and 157, let me  
24 know when you've had a chance to review those.

25 A. Okay.

1 Q. So if -- I'm kind of looking at the start  
2 of 157. Paragraph 157 you say: A POSITA would have  
3 simply provided mounting hardware for PSA unit  
4 108/506 on shell 204 and reverse the direction of the  
5 fasteners connecting PSA unit 506 to the chassis 202.  
6 This would have provided an assembly of shell 204 and  
7 PSA unit 108/506 and with circuit board 1314,  
8 unparen. And it goes on. Do you see that?

9 A. Yes.

10 Q. So you are now -- In this portion of your  
11 declaration, you are now saying that you could mount  
12 all of the internal structures with -- or to the  
13 shell?

14 A. Could, yes.

15 Q. And then lift the whole thing out with the  
16 shell?

17 A. That's right. Well, with or without the  
18 cartridge.

19 Q. Well, how would you -- Well, you're saying  
20 you're going to mount the entire unit and the circuit  
21 board to the shell and then lift that whole  
22 combination off the chassis? That's what you're  
23 saying in this paragraph, right?

24 A. Yes.

25 Q. You wouldn't be able to separate the

1 manifold from the housing in that hypothetical, would  
2 you?

3 A. Well, it says reverse the fasteners.

4 Q. So how would that separate the housing  
5 from the manifold?

6 A. So you take a nut driver and remove the  
7 fasteners, pull the threaded pieces out and then  
8 remove the cartridge.

9 Q. Well, I'm trying to understand. Maybe  
10 we're talking about different things here. But the  
11 whole -- the cartridge housing -- Sorry. Let me back  
12 up, ask a cleaner question.

13 The housing -- You're saying the housing,  
14 the manifold, the circuit board would all be attached  
15 to the shell, correct?

16 A. Probably, yes.

17 Q. And then you pull that whole thing out  
18 together? Is that what you're saying now?

19 A. Yes.

20 Q. Okay. Deane doesn't actually teach that,  
21 correct?

22 A. No.

23 Q. Okay. And, in fact, in Paragraph -- if we  
24 turn to Deane Paragraph 58, Deane discloses the  
25 chassis is removably attached to the shell. Do you

1 see that?

2 A. Yes.

3 Q. And that's -- So because of that, as such,  
4 the components can be assembled outside the confines  
5 of the shell 204, right?

6 A. Yes.

7 Q. Meaning you can take the shell off to work  
8 on the components, right?

9 A. Yes.

10 Q. And with this new argument you're making  
11 about all the internal structures being attached to  
12 the shell, you would no longer be able to do that,  
13 correct? Deane actually says you wouldn't do that  
14 because you want to be able to remove the shell so  
15 that you can work on the components outside the  
16 confines of the shell, correct?

17 A. It says that.

18 Q. And so based on that statement in Deane,  
19 you wouldn't attach everything to the shell of Deane?

20 A. Well, the comments I made in my  
21 declaration were what would be obvious to one skilled  
22 in the art.

23 Q. Is it your understanding that something  
24 can be obvious even if the reference you're relying  
25 on provides a reason not to do it?

1 A. Well, I didn't think that what Deane's  
2 text here said that there are reasons not to do it  
3 that way. This is just the way they've chosen to do  
4 it.

5 Q. There -- Deane -- You would agree Deane  
6 provides a reason for that shell to be removably  
7 attached to the chassis, which is so that components  
8 can be assembled outside the confines of the shell,  
9 correct?

10 A. Well, I think Deane was explaining it the  
11 way they decided to do it. And the way they decided  
12 to do it, to put a chassis and then mount the  
13 hardware, so to speak, to it and then have a housing  
14 to cover it is one way to do it. Another way would  
15 be to use the housing as more the permanent base, so  
16 to speak, and to mount the hardware firmly in it and  
17 then remove the bottom --

18 Q. You --

19 A. -- to access the hardware.

20 Q. Okay. So it's your opinion that even  
21 though Deane describes a benefit to not doing it the  
22 second way you just described it with everything  
23 attached to the shell, you would still do it?

24 A. I don't see a recommendation in what Deane  
25 wrote. I just see a description of how they decided

1 to do it. Did I miss something?

2 Q. I'm just trying to -- You would lose the  
3 ability to conveniently access as is described  
4 in -- or provide access as described in Paragraph 58  
5 if we -- if everything was -- if all the internal  
6 components were attached to the shell as you're  
7 suggesting in your declaration, correct?

8 A. It's simply the sequence of operation  
9 that -- here they first open and remove the shell and  
10 then access the hardware. In the version I was  
11 attempting to describe, they could mount everything  
12 firmly inside the shell, remove the base and then  
13 remove the cartridge.

14 Q. Well, I'm not even talking about cartridge  
15 removal. I'm just -- I guess, is it your opinion  
16 that when a reference like Deane gives a reason that  
17 certain components are arranged a particular way, you  
18 can just ignore that when you're saying something is  
19 obvious?

20 MR. MASTERS: Objection. Asked and  
21 answered.

22 BY MR. ATALLAH:

23 Q. Is that your opinion?

24 A. No. I didn't say -- I didn't say  
25 what -- I disagree with what you said because it's

1 simply a matter of preference.

2 Q. Okay. So you would agree we need to pay  
3 attention to what the disclosures actually say in  
4 terms of reasons components are arranged a particular  
5 way?

6 A. I didn't say that.

7 Q. So you can ignore it?

8 A. I said that if one skilled in the art  
9 chose to reverse the operation so that the hardware  
10 is mounted inside the shell, it could be done.

11 Q. Right. But -- Strike that.

12 I'm trying to understand what your opinion  
13 is or what your understanding is as to when a  
14 reference such as Deane provides a reason components  
15 are arranged in a particular way, when you are  
16 conducting an obviousness analysis, can you ignore  
17 those; or do you have to pay attention to them and  
18 take those into account?

19 A. I agree with the general principle that if  
20 an inventor says, "This is the way it should be done  
21 for these reasons," one would pay attention to that  
22 and not go against it. But I didn't take the word  
23 convenient, for example, to mean that that's the only  
24 way it could be convenient or conveniently.

25 Q. There's a -- The shell covers the entirety

1 of the internal components of Deane, correct? I'll  
2 say it a different way. I believe Deane describes  
3 the shell and the chassis contain all of the internal  
4 componentry?

5 A. Yes.

6 Q. What couldn't you attach to the shell?  
7 Could you attach the whole thing?

8 MR. MASTERS: Object to the form of the  
9 question.

10 You may answer if you can.

11 BY MR. ATALLAH:

12 Q. And if that's vague, let me -- Could you  
13 attach all the internal componentry to the shell?

14 MR. MASTERS: Same objection.

15 A. I see no reason why you couldn't connect  
16 the hardware. The only thing you couldn't connect,  
17 you know, and have it be inaccessible would be the  
18 bottom. You know, you -- One would have to be able  
19 to remove the bottom to access the internal parts.

20 Q. And certainly Deane doesn't describe  
21 connecting any of this componentry to the shell. But  
22 your opinion is you can just take these components  
23 and rearrange them however you see fit --

24 MR. MASTERS: Objection.  
25

1 BY MR. ATALLAH:

2 Q. -- if it can be done?

3 MR. MASTERS: Sorry. Objection.  
4 Mischaracterizes testimony.

5 You may answer.

6 A. I wouldn't say that what I'm suggesting  
7 would arrange it in whatever way desired. I would  
8 say it would be to keep the same parts in the same  
9 orientation but have the sort of chassis, as it were,  
10 be part of the shell and have the bottom simply be a  
11 plate that seals the enclosure but doesn't provide as  
12 much structural function as the current bottom does.

13 Q. And in the opinion you give in Paragraph  
14 156 and 157 where you're saying attach these  
15 particular internal components to the shell, I think  
16 you said the circuit board, the manifold and the  
17 housing with the absorbent. What reason would there  
18 be to do that?

19 A. It would be a matter of preference for the  
20 person doing the design work and, you know, could be  
21 that it's more economical to do it that way.

22 Q. Is that disclosed anywhere, in any  
23 reference?

24 A. No. That would be part of the person of  
25 skill in the art would have to ascertain it.

1 Q. If you didn't need to remove the  
2 cartridge -- remove the housing from the manifold in  
3 a particular direction, would there be any reason to  
4 attach everything to the shell?

5 A. If you didn't have to remove the housing  
6 from the manifold?

7 Q. The manifold in a particular direction,  
8 would there be any reason to attach all of these  
9 things to the shell?

10 A. I would say that would not enter into the  
11 decision-making process of whether one built it the  
12 way as shown in the Deane patent or in this sort of  
13 inverted manner that I just described in these two  
14 paragraphs.

15 Q. So you're saying it wouldn't -- in your  
16 opinion it wouldn't weigh in on whether you do what  
17 Deane says or do it a different way that Deane  
18 doesn't say, right?

19 A. It's just an engineering choice.

20 Q. Sir, you have defined -- or one  
21 definition -- not definition -- one construction  
22 you've given for the term receptacle is a structure  
23 configured to releasably receive and at least  
24 partially contain; is that right?

25 A. Yes.

1 Q. You would agree that at least in the  
2 actual disclosure of Deane, Deane discloses portions  
3 of the manifold that extend into the housing with the  
4 absorbent, right?

5 A. Portions of the manifold that extend into  
6 the absorbent?

7 Q. I'm sorry. Not -- I was trying to make  
8 sure we were talking about the right housing. The  
9 housing I'm talking about right now is housing 602.

10 A. That holds the absorbent?

11 Q. Correct.

12 A. Okay.

13 Q. So you would agree that Deane discloses  
14 portions of the manifold extend into that housing,  
15 correct?

16 A. I believe so.

17 Q. But you would also agree that Deane does  
18 not explicitly disclose that the manifold receives  
19 the housing, correct?

20 A. I don't believe that word is used.

21 Q. So you do agree?

22 A. I agree it that does not use the word  
23 "receives" for the manifold with respect to the  
24 housing.

25 Q. Well, let's put aside the word. Do you

1 agree that Deane does not explicitly disclose that  
2 the manifold receives the housing?

3 A. If you're not speaking about the exact  
4 word "receives," then I would say, no, I don't agree.

5 Q. Does Deane disclose anything beyond  
6 mounting with regards to the manifold?

7 A. The diagrams show sort of in two  
8 dimensions but the 3D structure where one can  
9 anticipate how the housing 602 I think mates with the  
10 manifold.

11 Q. And the only description Deane provides  
12 for that is that the manifold is mounted, correct?

13 A. Yes.

14 Q. Or that the housing is mounted?

15 A. Although the illustrations show it as far  
16 as I'm concerned.

17 Q. Show what?

18 A. That the housing fits into the manifold.

19 Q. Where does it show that?

20 A. So in figure 6, it shows especially  
21 the receiver, which -- Is it numbered in this  
22 diagram? 124. Anyway, it shows -- Where 124 is,  
23 it's got a -- that end 604 is shaped in such a way  
24 that it would be press fit into the manifold.

25 Q. Doesn't actually show it press fit into

1 the manifold, correct?

2 A. No, it doesn't.

3 Q. And the specification doesn't actually  
4 describe it being press fit into the manifold,  
5 correct?

6 A. That's correct.

7 Q. Okay. Now, in Paragraph 59 --

8 A. Of?

9 Q. Of Deane. I'm sorry.

10 A. Okay.

11 Q. And right near the end, do you see right  
12 at the end it's talking about figure 4.? Do you see  
13 that? It says: As also shown in figure 4, an oblong  
14 slot.

15 A. Yes.

16 Q. And see the sentences that say: In one  
17 embodiment, a battery circuit is mounted on the  
18 bottom of the slot which can also contain an IRDA  
19 transmitter/receiver. Moreover, the chassis 202 can  
20 be fit with notches to receive and support the bottom  
21 of the partition. Do you see that?

22 A. Yes.

23 Q. So here at least with regards to mating  
24 contacts, the specification of Deane distinguishes  
25 between mounting and receiving, correct?

1 A. I'm not sure what you're asking.

2 Q. So at least here in the portions of  
3 Paragraph 59 we were just reading, Deane  
4 distinguishes between mounting and receiving,  
5 correct?

6 A. I don't know if it distinguishes between  
7 those, but it uses both words, yes.

8 Q. And it does not say mounting is receiving,  
9 correct?

10 A. It doesn't say they're equivalent, no.

11 Q. Okay. So someone reading Deane would  
12 understand that receiving means something different  
13 than mounting?

14 MR. MASTERS: Object to form.

15 A. Well, not because Deane says anything to  
16 the effect that mounting is different from receiving.  
17 But, you know, I think people understand the two  
18 words generally.

19 Q. The two words generally mean different  
20 things, is that what you're --

21 A. Yes. It wouldn't be synonyms in the  
22 dictionary I don't think.

23 Q. In your declaration, Paragraph 155 -- your  
24 second declaration -- I'm sorry -- your second  
25 declaration, Paragraph 155 --

1 A. Okay.

2 Q. -- you say near the end -- Do you see  
3 where it says: If the manifold 512 were only flush?

4 A. Yes.

5 Q. Okay. I want to ask about that sentence  
6 and the one after it, so if you want to read those  
7 real quickly.

8 A. Okay.

9 Q. Now, as between the -- You're talking  
10 about the interface here between the manifold and the  
11 housing, correct?

12 A. Yes.

13 Q. And you're saying there would be no gas  
14 tight seal if it were only flush -- if the manifold  
15 were only flush with the housing, right?

16 A. Yes.

17 Q. Now, why wouldn't one of ordinary skill  
18 simply be able to use a face seal with a gasket  
19 there?

20 A. Do you mean, for example, a gasket?

21 Q. As a face seal?

22 A. Yes.

23 Q. Would one of ordinary skill be able to do  
24 that?

25 A. It's my experience that such a seal would

1 not be acceptably air tight or gas tight for an  
2 application like this that involves routine movement  
3 of the whole apparatus.

4 Q. When you say "routine movement of the  
5 whole apparatus," what do you mean?

6 A. Picking it up, carrying it, putting it in  
7 the trunk of a car or the backseat of a car and  
8 driving off and then lifting it out and bumping it  
9 against things. There would be stresses on this  
10 portable oxygen concentrator that wouldn't be true if  
11 it were a stationary oxygen concentrator.

12 Q. Would it be possible to use a face seal as  
13 a gasket if you screwed it in?

14 A. If you screwed it in?

15 Q. Yeah. To attach it, fasten it. Let me  
16 back up.

17 You're familiar with a gasket being used  
18 as a face seal?

19 A. Yes.

20 Q. And how would you attach that gasket  
21 between two surfaces or how could you?

22 A. Well, there's gasket adhesive that one  
23 could apply to one surface and then place the  
24 removable part over it.

25 Q. What about -- Could you fasten that gasket

1 with fasteners to something?

2 A. Fasten the gasket?

3 Q. Uh-huh.

4 A. Yes.

5 Q. And if you -- I assume those adhesives are  
6 fairly strong?

7 A. Yes.

8 Q. So if you use those adhesives or fasten  
9 the gasket with a fastener, that could provide the  
10 adequate seal between a housing and a manifold,  
11 correct?

12 A. The problem is not keeping the gasket  
13 stationary. The problem is because that the column,  
14 the absorbent, the housing is relatively tall, it  
15 would be subject to torsion due to an impact, for  
16 example, that when the housing is bumped against the  
17 edge of a table, absorbent inside of the manifold on  
18 top have momentum. They tend to keep moving in the  
19 direction -- you know, Newton's Law of Motion.  
20 Anyway, so that momentum would tend to twist the  
21 housing and lose contact with the side pointing away  
22 from the direction of the movement, and leakage could  
23 occur.

24 Q. But generally a gasket would be able to  
25 seal between two surfaces like a manifold and the

1 housing, correct?

2 A. I think it depends on what the two objects  
3 are that are being joined together. If one is top  
4 heavy, as this would be, then I would say it would be  
5 a risky thing to do.

6 Q. In Paragraph 177 of your second  
7 declaration, you say -- near the end you say: Due to  
8 the artist's rendering, the revealed part of spring  
9 1616 does not extend upward to the top of the housing  
10 602. Do you see that?

11 A. No, I don't.

12 Q. Second to last sentence.

13 A. I see it.

14 Q. So do you believe that the spring here in  
15 Deane extends all the way to the top of the housing?

16 A. I don't know for sure because it doesn't  
17 address that. But I believe it must be true because  
18 there are no other retention fixtures or details that  
19 show how the spring would be restrained to the top,  
20 at the top edge or surface of it.

21 Q. So fair to say your opinion is it doesn't  
22 show that, but you believe it would?

23 A. I believe that the housing would be more  
24 full with absorbent such that the spring probably  
25 before assembly extended slightly above the end, that

1 plate; and when the plate is installed, now the  
2 spring is compressed so that it applies force --  
3 downward force on the absorbent to keep it in place.

4 Q. So, again, fair to say your opinion is  
5 Deane doesn't show it in this figure, but you believe  
6 it does extend all the way to the top?

7 A. Yes.

8 Q. Now, if we're just looking at the figure  
9 of Deane and it extends all the way to the top, that  
10 would be a fairly large spring, wouldn't it?

11 A. Oh, no. As I said, I think the amount of  
12 absorbent shown is less than would actually be  
13 present so that the -- more absorbent would fill the  
14 space and perhaps the same exact spring as shown  
15 could be used. But because there's more absorbent,  
16 now it would be put under compression as it's being  
17 sealed.

18 Q. But that's not what Deane shows. If we  
19 just take Deane's figure, you know, at face value,  
20 it -- if that spring is extended to the top, you  
21 would agree that's a fairly large spring, correct?

22 MR. MASTERS: Objection. Mischaracterizes  
23 prior testimony.

24 A. Do you want me to answer?

25 Q. (Nods.)

1 A. I don't believe it would be a much larger  
2 spring than is shown.

3 Q. Would you -- If that spring as shown in  
4 figure 6 extends to the top --

5 A. With plate 614a where it is then, yes,  
6 something would have to be done to put the spring  
7 under compression, and there's nothing shown that  
8 does that.

9 Q. Meaning it has to extend to the top to be  
10 put under compression?

11 A. Well, it doesn't show a larger spring. I  
12 mean, there's no difference to me from an engineering  
13 standpoint of whether you show the spring as it  
14 should be, but in a position where it's more  
15 convenient for the artist to show its shape and  
16 dimensions and so on without filling the space with  
17 absorbent because if the space were filled with  
18 absorbent in order for the spring to touch the top  
19 end or it to even be compressed at the top end, that  
20 would preclude putting as much detail on that top  
21 plate 604.

22 Q. You would agree that as shown in figure 6,  
23 that spring extends all the way to the top, that  
24 leaves quite a bit of dead volume in that housing,  
25 correct?

1 A. Yes.

2 Q. And you would agree that if one were to  
3 add another spring at the other end, it would leave  
4 even more dead volume, correct?

5 A. Yes.

6 Q. Sir, in Paragraph 183 --

7 A. Of?

8 Q. Of your second declaration. You say  
9 that -- I'll let you get there. You say that the  
10 main portion of housing 602 and feed tube 608 are  
11 separate volumes. Do you see that?

12 A. Yes.

13 Q. Aren't those volumes exposed to the same  
14 gas and flow when the Deane device is operating?

15 A. Well, to the extent that the feed air,  
16 compressed air comes in through the feed tube and  
17 then passes into the main part of the housing, yes.

18 Q. And, sir, you would agree that fluid -- or  
19 the gas flow needs to pass from the top of the feed  
20 tube into what you call the main portion of the  
21 housing, correct?

22 A. Yes.

23 Q. So those are volumes that are connected,  
24 correct?

25 A. They're connected.

1 Q. In Paragraph 185 of your second  
2 declaration, you make a statement at the end that  
3 says: Just because a different reference uses,  
4 quote, feed gas, unquote, in a different manner does  
5 not change how, quote, feed gas, unquote, is used  
6 internally in Deane. Do you see that?

7 A. Yes.

8 Q. Earlier in this paragraph you refer to  
9 Paragraphs 58 and 59 of the POR, which is the -- do  
10 you understand that to be the patent owner response?

11 A. Uh-huh.

12 Q. Is that right? You refer to those  
13 paragraphs?

14 A. Yes.

15 Q. And is that where it -- Is that what  
16 you're responding to when you say just because  
17 different references use that -- is that what that  
18 sentence is responding to?

19 A. Yes.

20 Q. Okay.

21 MR. ATALLAH: Do you have this one, the  
22 response?

23 MR. MASTERS: Yes.

24 BY MR. ATALLAH:

25 Q. And I've just handed you an exhibit. It's

1 the patent owner response that's been filed in this  
2 IPR. Do you see that?

3 A. I'm sorry?

4 Q. What I've just handed you is the patent  
5 owner response in this IPR.

6 A. Yes.

7 Q. And you've seen that before?

8 A. I have.

9 Q. So if we turn to Page 59, as you've  
10 referenced in Paragraph 185, do you see where it  
11 says: Second Deane incorporates by reference into  
12 his disclosure a patent of Dr. Knaebel.

13 A. Yes.

14 Q. And that's your patent, right, the 933?

15 A. Yes.

16 Q. Now, sir, so you don't -- I believe we  
17 looked at this before. But Deane does incorporate  
18 that -- incorporate by reference that patent of  
19 yours, correct?

20 A. I believe so.

21 Q. And so is it your suggestion that -- Well,  
22 actually, let me back up.

23 That -- So in your declaration  
24 Paragraph 185, you're suggesting that that reference  
25 can just be ignored?

1 MR. MASTERS: Object to the form.

2 A. Pertaining to the definition of feed gas?

3 Q. Just as you say in 185, I'm asking: Is it  
4 your -- Are you contending there that that reference  
5 can just be ignored because it's a different  
6 reference?

7 A. I'm sorry. I missed the reference. Just  
8 as I say in 185?

9 Q. Of your declaration -- Your second  
10 declaration.

11 A. Yes.

12 Q. So let me ask this so we have a clean back  
13 and forth here.

14 So is it -- Are you suggesting that you  
15 can just ignore the 933 patent of yours because it's  
16 a different reference? Is that what you're  
17 suggesting in Paragraph 185 of your second  
18 declaration?

19 A. Yes. I think the -- What I've understood  
20 is that the patent should be judged based on its own  
21 conventions, not based on anybody else's, even mine.

22 Q. So earlier in this Paragraph 185 when you  
23 say: Deane consistently uses feed gas to describe  
24 gas that's provided for absorption and not post  
25 absorption, your reference that we were just talking

1 about does provide feed gas post absorption, right?

2 A. I mean, if we want to get that patent out  
3 and look at the context in which it's used, we could.  
4 But I would just say that the two documents, my  
5 patent -- so-called 933 patent and Deane's patent,  
6 you know, the --

7 Q. The Deane reference?

8 A. The one we've been looking at.

9 Q. Let me ask you this. Do you have any  
10 understanding of what it means to be incorporated by  
11 reference in a patent or a patent application?

12 MR. MASTERS: Objection to the extent it  
13 calls for a legal conclusion.

14 You may answer.

15 A. I'm vaguely familiar with it, but I could  
16 not write a definition.

17 Q. What is your understanding?

18 A. That general concepts from the cited  
19 document are assumed to be known and sort of fit  
20 within the boundary of what is obvious to one skilled  
21 in the art.

22 Q. Is it your understanding that if a patent  
23 or a patent application incorporates another patent  
24 application by reference in full, that it says if  
25 that disclosure is set forth in the reference

1 incorporating that material? Does that makes sense?

2 MR. MASTERS: Objection to the extent it  
3 calls for a legal conclusion.

4 A. I have not understood it that way, no.

5 Q. So certainly I'm assuming that you would  
6 not -- you're not suggesting -- if that is the  
7 correct understanding, that something incorporated by  
8 reference is set forth in the document that's  
9 incorporating explicitly, you're not suggesting you  
10 would ignore those references, right?

11 A. Surely not.

12 Q. And to the extent that Deane incorporates  
13 your patent by reference, you wouldn't ignore that,  
14 correct?

15 A. By "that," you mean my patent?

16 Q. Correct.

17 A. Yes.

18 Q. I'm going to hand you what was  
19 Exhibit 1006 in this IPR.

20 A. Which of these can I close up?

21 Q. You can close up the big one. This one.  
22 The POR, you can close that up. Lots of paper.

23 (Discussion held off the record.)

24 BY MR. ATALLAH:

25 Q. Sir, this is the -- I'm going to pronounce

1 it wrong -- Berntson reference?

2 A. Yes.

3 Q. And that's WO 2005/009590 at the top?

4 A. Yes.

5 Q. It's a PCT?

6 A. Yes.

7 Q. Sir, this reference is titled "Oxygen  
8 Concentrator Construction Supply and Repair." Do you  
9 see that?

10 A. Yes.

11 Q. And it has only two figures, one of which  
12 is shown on the front page, correct?

13 A. Yes.

14 Q. If you could turn to the back page, Page  
15 12. It's got the two figures, right?

16 A. Yes.

17 Q. This device has a plug, right?

18 A. Yes.

19 Q. So this is not a portable oxygen  
20 concentrator, correct?

21 A. Correct.

22 Q. We talked today about your first  
23 declaration in this IPR?

24 A. Yes.

25 Q. And that was Exhibit 1003 I believe.

1 A. Yes.

2 Q. Now, when you wrote that declaration, you  
3 were able to understand the claims of the 614 patent,  
4 correct?

5 A. Yes.

6 Q. And in that declaration, you only proposed  
7 three specific constructions, correct? Let me ask it  
8 in a different way. In that -- in that  
9 declaration -- first declaration, you only proposed  
10 constructions for three terms in the claims of the  
11 614 patent, correct?

12 A. I honestly don't recall the details, but  
13 if you would care to refer me to a paragraph or a  
14 page. I mean, it is over 100 pages, and it was over  
15 a year ago.

16 Q. So I'm going to point you to in  
17 Exhibit 1003 to your table of contents. And you can  
18 feel free to refer to pages referenced in that table  
19 of contents. But it looks like Section 5,  
20 construction.

21 A. Okay.

22 Q. And there's three phrases there.

23 A. Right.

24 Q. Okay. And if you want to go review those  
25 pages. But -- So in this first declaration,

1 Exhibit 1003, you only propose constructions for  
2 three phrases or terms of the 614 patent claims,  
3 correct?

4 A. Yes.

5 Q. And to prepare this, I think you just  
6 referred to it as a very long -- I'm paraphrasing a  
7 little bit there -- declaration. You did not need a  
8 construction for any other terms, correct?

9 A. I didn't supply them, no.

10 Q. All right. So let's go to -- If you go to  
11 Paragraph -- If you want to put your original one to  
12 the side, that's fine. I'm going to be referring to  
13 this document and your current second declaration.  
14 So this is -- Have you seen that document before?

15 A. Briefly, yes.

16 Q. And this is the petitioner's reply to  
17 patent owner's response to the petition?

18 A. Uh-huh.

19 Q. So let's take -- If you look at Page 6.

20 A. Okay.

21 Q. This lays out what the petitioner says is  
22 petitioner's construction and patent owner's  
23 construction for the term "separation cartridge." Do  
24 you see that?

25 A. Yes.

1 Q. Now, sir, you discuss this term in your  
2 second declaration. And I'm going to point you to  
3 Paragraph 40 of your second declaration for a minute.  
4 And the reason I gave you the patent owner reply is  
5 because I don't think your declaration lays out the  
6 tables. So you can have both in front of you.

7 A. Okay.

8 Q. So, sir, in Paragraph 40, you say that the  
9 patent owner's construction is partially correct,  
10 right?

11 A. Yes.

12 Q. And that's because a separation cartridge  
13 is configured to separate gas, correct?

14 A. Yes.

15 Q. Now, you recall earlier today we talked  
16 about that first clause of claim one of the 614  
17 patent that starts with a separation cartridge?

18 A. Yes.

19 Q. That -- that -- So claim one of the 614  
20 patent actually specifies specific structure of the  
21 cartridge, right? We talked about some of that?

22 A. Well, it depends on how you'd define the  
23 word "comprising."

24 Q. With the assumption that comprising means  
25 including it's specified that a separation cartridge

1 would include an outlet, an inlet and an absorbent  
2 bed, right?

3 A. Yes.

4 Q. So that defines the separation of the  
5 separation cartridge, right?

6 MR. MASTERS: Objection. Calls for a  
7 legal conclusion.

8 You may answer.

9 A. In my layman's understanding, yes.

10 Q. Okay. Can you go back to -- It's Exhibit  
11 1054, the 628 patent, please.

12 A. I don't believe I've got that one.

13 Q. I think I handed it to you earlier.

14 A. I don't believe so.

15 Q. Maybe not. Let me hand you that one.  
16 This is 1054 to this IPR.

17 A. So we're going to talk about the 628  
18 patent, not the --

19 Q. I'm just going to ask you some questions.

20 A. Petitioner's reply to the --

21 Q. You can leave that there for now. We'll  
22 come back to it.

23 So you've seen this patent before,  
24 correct?

25 A. Yes.

1 Q. And your -- So as we just saw, the  
2 proposed construction and the patent owner reply in  
3 that table for -- I'm sorry. Let's strike that and  
4 start over.

5 The constructions that you are proposing  
6 in your declaration -- your second declaration, that  
7 is what's listed in the patent owner reply table we  
8 looked at for separation cartridge, correct?

9 A. Constructions that we were just looking at  
10 were the first declaration I believe, three.

11 Q. Let me back up. Right there on Page 6 of  
12 the patent owner reply, the petitioner's reply, do  
13 you see that?

14 A. Yes.

15 Q. There's a construction in there that's  
16 petitioner's construction separation cartridge,  
17 correct?

18 A. Yes.

19 Q. And that aligns with your proposed  
20 construction of separation cartridge, correct?

21 A. I haven't looked at them word for word,  
22 but I think they're generally consistent.

23 Q. And now, the 628 patent also recites a  
24 separation cartridge, correct, in the claims?

25 A. I believe so.

1 Q. And your understanding of that term in the  
2 628 patent would be the same as what was you've  
3 proposed for the 614 patent?

4 MR. MASTERS: Object to the form of the  
5 question. This is clearly outside the scope of the  
6 witness' declaration.

7 BY MR. ATALLAH:

8 Q. Go ahead.

9 A. That I would construe this -- separation  
10 cartridge to be consistent with this construction?

11 Q. That you would construe the separation  
12 cartridge in the claims of the 628 consistent with  
13 how you're construing it in the 614.

14 A. In my layman's opinion, yes.

15 Q. Sir, if you take a look at the claims of  
16 the 628 patent. Do you see claim 11?

17 A. Yes.

18 Q. Looks fairly -- Separation cartridge  
19 there, without reading it word for word, that clause  
20 appears to be almost the same as we see in the 614  
21 patent claim one?

22 MR. MASTERS: Object to the form. Calls  
23 for a legal conclusion. It's also inappropriate line  
24 of questioning.

25 A. In my layman's opinion, yes.

1 Q. And I'm going to come back to that in a  
2 second. But in your second declaration at Paragraph  
3 61, did you opine about the 628 claim set cannot  
4 change the plain meaning of separation cartridge?

5 A. I believe so.

6 Q. So let's go back to -- it's the 628  
7 patent. Now, sir, the separation cartridge, if  
8 we -- there's a dependent claim from claim 11. Do  
9 you see claim 21?

10 A. Yes.

11 Q. And that claim says the bed of absorbent  
12 material is one of a plurality of beds of absorbent  
13 materials within the separation cartridge, correct?

14 A. Yes.

15 Q. So in claim 11, the separation cartridge  
16 does not require multiple beds, correct, because  
17 that's what claim 21 requires?

18 MR. MASTERS: Objection. Calls for a  
19 legal conclusion. Outside the scope of  
20 the -- inappropriate line of questioning.

21 BY MR. ATALLAH:

22 Q. Correct?

23 A. I see that the word "bed" is singular in  
24 claim 11, yes.

25 Q. And claim 21 says that that bed is one of

1 a plurality of beds, correct?

2 A. I see that, yes.

3 Q. So in claim 11, the separation cartridge  
4 does not require multiple absorbent beds because  
5 that's what claim 21 requires, correct?

6 MR. MASTERS: Objection. Calls for a  
7 legal conclusion. Outside the scope of this witness'  
8 declaration.

9 BY MR. ATALLAH:

10 Q. Go ahead.

11 A. I see that they're distinct.

12 Q. What does that mean?

13 MR. MASTERS: Objection. Asked and  
14 answered.

15 BY MR. ATALLAH:

16 Q. What does distinct mean?

17 A. Distinct means not identical.

18 Q. If separation cartridge were to mean -- or  
19 require multiple beds as its construction, what would  
20 claim 21 add to claim 11 in this patent?

21 MR. MASTERS: Same objection.

22 A. I'm not qualified to answer that I don't  
23 believe.

24 Q. 614 patent.

25 MR. MASTERS: We've been going for over an

1 hour, so good time to break.

2 MR. ATALLAH: Let me finish the last  
3 couple questions.

4 BY MR. ATALLAH:

5 Q. Let's go back to claim one of the 614  
6 patent.

7 A. Claim one?

8 Q. Yes.

9 A. Okay.

10 Q. That same clause we've been referring to  
11 that starts with a separation cartridge, do you see  
12 that?

13 A. Yes.

14 Q. Some language we've looked at already.  
15 But it says: The separation cartridge comprising --  
16 and, again, with the understanding that that means  
17 including -- an inlet oriented in the second  
18 direction opposite the first direction, an outlet  
19 oriented in a second direction and a bed of absorbent  
20 material configured to preferentially absorb  
21 nitrogen; do you see that?

22 A. Yes.

23 Q. This claim does not cite multiple inlets  
24 and outlets, correct?

25 MR. MASTERS: Objection. Calls for a

1 legal conclusion.

2 A. Correct.

3 Q. It could certainly -- A device could  
4 certainly have multiple inlets and outlets, but this  
5 claim does not require multiple inlets or outlets,  
6 correct?

7 MR. MASTERS: Same objection.

8 A. I've been told by my patent attorney that  
9 certain things encompass other things by their very  
10 nature. But strictly speaking, just an engineer's  
11 point of view, singular doesn't always mean that  
12 plural is also applicable.

13 Q. Maybe I was asking a bad question. All I  
14 was asking was: Something with multiple outlets  
15 would certainly have a single outlet as well? It  
16 would have at least one?

17 A. At least one, yes.

18 MR. ATALLAH: And -- All right. We can  
19 take a break.

20 (Recess taken.)

21 BY MR. ATALLAH:

22 Q. Sir, at the time -- time -- and 2004-2005  
23 I think is how you referred to it, is the time of  
24 invention for the 614 patent. Is that a general  
25 understanding of your time -- the time of invention

1    there?  You've referred to that time frame in your  
2    declaration?

3    A.            Yes.

4    Q.            At that -- At or before that time frame,  
5    there were oxygen concentrators with single bed  
6    systems, correct?

7    A.            Not that I know of.

8    Q.            In your -- Okay.  In your declaration, you  
9    say single bed system -- your second declaration, you  
10   say single bed systems were used in industrial VSA  
11   processes, correct?

12   A.            Single bed.

13   Q.            Correct.

14   A.            Yes.

15   Q.            So single bed systems were -- for oxygen  
16   concentrators were known as of the 2004-2005 time  
17   frame, correct?

18   A.            I misunderstood.  You didn't say portable.

19   Q.            They were known for oxygen concentrators,  
20   correct?

21   A.            Yes.

22   Q.            And your second declaration, and first  
23   declaration to that extent, relies on a number of  
24   references that disclose systems that were not  
25   portable, correct?

1 A. Yes.

2 Q. Like Berntson, for example?

3 A. Yes.

4 Q. So single bed systems did work for oxygen  
5 concentrators, right?

6 A. Oh, sure. I've even published on the  
7 subject.

8 Q. Okay. Do you have that patent owner reply  
9 with the table?

10 A. Yes.

11 Q. So if you can go to Page 7. Sir, do you  
12 see the table here under Subsection B, receptacle?  
13 And it lists petitioner's construction?

14 A. Yes.

15 Q. And you -- Here do you see he's proposing  
16 two different constructions, right?

17 A. Yes.

18 Q. Can you tell me what the difference is  
19 between them?

20 A. The obvious one is the words.

21 MR. MASTERS: Object to the question to  
22 the extent it calls for a legal conclusion.

23 A. I'm not sure what type of an answer you  
24 want.

25 Q. What is your understanding -- Well, do you

1 have any other further understanding about the  
2 differences between these two proposed constructions  
3 by petitioner other than the words?

4 A. The first version uses the term interface  
5 or interfaces and partially contains. The second one  
6 uses the word receives or receive and partially  
7 contained. I don't know if singular or plural  
8 version of the verb matters. So, you know, interface  
9 and receive -- releasably receive seems to be the  
10 main difference.

11 Q. Does the first one also talk about an  
12 inlet and outlet whereas the second one does not?

13 A. That is true, yes.

14 Q. What is the difference between releasably  
15 receive and releasably interfaces?

16 A. To me, it's a semantic difference.

17 Q. So different words, but they mean the same  
18 thing?

19 A. I wouldn't say they're identical.  
20 Synonymous, but I wouldn't say they're similar.

21 Q. So in what ways are they not similar?

22 A. They are not similar in that an interface  
23 could be -- I'm going to use the terms as they're  
24 used in the electrical industry, male or female. It  
25 could be a male or female interface, and the

1    releasably receive in the second one seems like it  
2    would be more of the female.

3    Q.           Why doesn't the second one -- the  
4    releasably receive, why does that eliminate the  
5    reference to inlet and outlet?

6    A.           I don't know.

7    Q.           There's also patent owner's construction  
8    proposed here as well, correct, on this table?

9    A.           Yes.

10   Q.           With regards to petitioner's  
11   construction -- petitioner's two constructions here,  
12   which one is correct?

13               MR. MASTERS: Object to form. Calls for a  
14   legal conclusion.

15   A.           I would not say that one is more correct  
16   than the other. Semantically I slightly prefer the  
17   second one, but I don't think it's more correct  
18   necessarily.

19   Q.           Sir, do you have the 614 patent in front  
20   of you?

21   A.           Yes.

22   Q.           Can you take a look at the claims, please.  
23   In particular we've been looking at claim one, right?

24   A.           Yes.

25   Q.           And that claim recites a receptacle,

1 correct?

2 A. Yes.

3 Q. So now, you relied on the entirety of the  
4 specification in coming to your opinions regarding  
5 the term receptacle, the entirety of the  
6 specification of the 614 patent?

7 A. Uh-huh.

8 Q. Yes?

9 A. I believe so. That was my intent.

10 Q. Fair enough. If you take a look at column  
11 12 -- I'm sorry -- column 11, at line 61 it talks  
12 about figure 7. Do you see that, where it starts  
13 with figure 7?

14 A. Yes.

15 Q. And near the bottom of that column it  
16 says: Power pack has been removed from receptacle to  
17 ten of power module 106. Do you see that?

18 A. Yes.

19 Q. The constructions being offered here by  
20 petitioner regarding receptacle would not make any  
21 sense in the context of a power pack, correct?

22 A. I'm missing your point.

23 Q. So the specification here describes the  
24 power pack being removed from a receptacle, correct?

25 A. Correct.

1 Q. So if I were to apply -- I think you said  
2 you prefer the second one, so let's use that one as  
3 an example. Petitioner's second construction for  
4 receptacle which is a structure configured to  
5 releasably receive and at least partially contain the  
6 separation cartridge, do you see that?

7 A. Yes.

8 Q. That wouldn't make any sense if we're  
9 talking about a power pack, right?

10 MR. MASTERS: Objection. Calls for a  
11 legal conclusion.

12 A. It's a different application.

13 Q. The specification discloses that  
14 receptacles can hold more than a separation  
15 cartridge, correct?

16 A. Well, sure. I mean, you're looking at  
17 five receptacles.

18 Q. So as a person of skill, wouldn't you  
19 apply a definition to receptacle that could account  
20 for all of the receptacles that are disclosed?

21 MR. MASTERS: Objection. Legal  
22 conclusion.

23 A. Yes. I'm not qualified to comment on this  
24 I don't think. It's not a chemical engineering  
25 concept.

1 Q. Fair to say as to receptacle you're just  
2 not sure?

3 MR. MASTERS: Same objection.

4 A. I said I'm not qualified to comment I  
5 believe.

6 Q. If you go to -- back in the patent owner  
7 reply document, if you look at Page 9 --

8 A. Not the --

9 MR. MASTERS: You mean petitioner's reply?

10 BY MR. ATALLAH:

11 Q. I misspoke. The petitioner's reply.  
12 We've been looking at these tables.

13 A. I'm ready.

14 Q. Page 9, there's a header, Section C.

15 A. Okay.

16 Q. And that's for the phrase "selectively  
17 removable bracket from receptacle," unbracket. Do  
18 you see that?

19 A. Yes.

20 Q. And, again, the petitioner poses two  
21 constructions here?

22 A. Yes.

23 Q. What is the difference between them?

24 MR. MASTERS: Object to the extent it  
25 calls for a legal conclusion.

1 A. Do you want my response as an engineer or  
2 just a person of ordinary skill?

3 Q. Whatever response you want to give me.

4 A. I see that a district court document is  
5 cited here, and I am almost positive that I have read  
6 that. So I don't feel like I should comment on the  
7 second one. So I think the first one seems to be  
8 clearer in its meaning, but I think the second one,  
9 the part outside the parentheses is clear in that  
10 they seem to be very similar. Obviously, the first  
11 one mentions as a whole. The second one does not.

12 Q. Now, you see patent owner's construction  
13 there can chosen to be removed?

14 A. Yes.

15 Q. Can you tell me, in your opinion --  
16 Actually, let me back up.

17 Is it your opinion that's incorrect?

18 A. It depends on what the -- how the terms  
19 selectively and chosen are used. Chosen could mean  
20 at a point in time, or it could mean one versus the  
21 other or it could mean yes, to do it or no, not to do  
22 it. And selectively removable, to me, means that  
23 it's a sort of a modular construction that can be  
24 manipulated and withdrawn.

25 Q. Okay. Meaning what's being select -- in

1 your opinion, what's being selectively removable can  
2 be manipulated and withdrawn?

3 A. Yeah. Like I can selectively lift this  
4 bottle of water.

5 Q. You're choosing to lift the bottle of  
6 water?

7 A. Yes.

8 Q. So assuming that the term "selectively  
9 removable," both those words, the patent owner's  
10 construction can be chosen to be removed, can you  
11 tell me what is incorrect, if you have an opinion  
12 about whether that's incorrect?

13 MR. MASTERS: Objection. Foundation.  
14 Calls for a legal conclusion.

15 A. I think the word "chosen," to me, just has  
16 a broader range of meaning, that -- they're different  
17 sort of either thought processes or attitudes,  
18 presumptions behind choosing something rather than  
19 selectively doing something.

20 Q. You see petitioner's construction there,  
21 right?

22 A. Yes.

23 Q. It also says "individually," but it says  
24 "can be individually chosen." Do you have the same  
25 opinion with regards to that construction?

1 A. Well, the word "chosen," to me, has a  
2 wider range of possible meanings. And adding the  
3 word "individually" though narrows it down. In other  
4 words, it's not a matter of time of day or any number  
5 of possible variables.

6 Q. So you're saying in considering this  
7 construction, you need to consider when something  
8 selectively removable is chosen to be removed?

9 A. I'm just saying that the word "chosen"  
10 encompasses that.

11 Q. The first construction I'll provide the  
12 petitioner there does not use the word "chosen"?

13 A. Correct.

14 Q. So you would agree that each of these  
15 three constructions, the two by petitioner and the  
16 one by patent owner are different, correct?

17 A. Each of the three are different, yes.

18 Q. Sir, I want to ask you about -- if you go  
19 to your second declaration.

20 A. Are we finished with petitioner --

21 Q. Yes. So I want to clarify on the record.  
22 If I mistakenly referred to the document we were just  
23 looking at as patent owner's reply at any point  
24 today, I did mean to say petitioner's reply. This  
25 was petitioner's reply in this IPR, correct?

1 A. Yes.

2 Q. So in your declaration at Paragraph 108,  
3 the last sentence you say: Thus, a POSITA -- that's  
4 P-O-S-I-T-A -- reading the 614 patent would not have  
5 understood a particular removable strategy,  
6 direction, et cetera, to be required by 614 patent.  
7 Do you see that?

8 A. Yes.

9 Q. We've looked at claim one quite a bit  
10 today, correct?

11 A. Yes.

12 Q. And it's claim one of the 614 patent?

13 A. Yes.

14 Q. Wouldn't you agree that claim one of the  
15 614 patent literally states a removal direction?

16 MR. MASTERS: Object to form to the extent  
17 it calls for a legal conclusion.

18 A. Well, that's a good question. I would say  
19 it does not say upward, downward, left, right. So it  
20 does not refer to a direction in that sense. It just  
21 says -- we can look at it -- separation cartridge  
22 selectively removable from receptacle by movement  
23 relative to the receptacle in the first direction.  
24 So it means --

25 Q. So is it your testimony that claim one

1 does not recite a removal direction?

2 A. It's --

3 MR. MASTERS: Objection. Asked and  
4 answered.

5 BY MR. ATALLAH:

6 Q. Go ahead.

7 A. All it says: Separation cartridge  
8 selectively removable from a receptacle by movement  
9 relative to the receptacle in the first direction.

10 Q. Okay.

11 A. So if one places the frame of reference on  
12 the receptacle, then the cartridge moves away from  
13 it.

14 Q. So -- But my question is simply: I'm  
15 trying to understand your comment in Paragraph 108 of  
16 your declaration that says: Someone reading this 614  
17 patent would not have understood a particular  
18 removable direction because I think claim one does  
19 specify a removable direction, the first direction.  
20 Would you agree with that?

21 A. But it doesn't specify whether that is  
22 left, right, up, down or even circular.

23 Q. It does not state that, but it states a  
24 first direction is the removable direction, right?

25 A. It does say a first direction, yes.

1 Q. Is the removable direction?

2 A. Yes.

3 Q. Now, sir, in your second declaration  
4 again -- I think I have the wrong paragraph number.  
5 Down in -- It starts -- It's section VI. It starts  
6 at Paragraph 231 I believe.

7 A. Okay.

8 Q. You -- And actually -- So Paragraph 231 to  
9 232 looks like you offer some opinions here, and you  
10 touch on the Inogen one G1. Do you see that?

11 A. Yes.

12 Q. And that -- You say in your declaration  
13 here that the Deane reference we've been talking  
14 about, right, reflects the configuration of that  
15 Inogen one G1 product, correct?

16 A. I don't think -- That's not what I meant,  
17 if I said that the patent reflects the Inogen one G1.  
18 Did I say that?

19 Q. The bottom of Page 105 I think you say:  
20 It is important to note that Deane reflects the  
21 configuration of a popular Inogen product, the Inogen  
22 one G1. Do you see that?

23 A. Oh, yes. Okay.

24 Q. That's what you said, right?

25 A. Yes.

1 Q. Now, isn't it true that Inogen later came  
2 out with new devices that improved on the Inogen one  
3 G1?

4 MR. MASTERS: Objection to the extent it  
5 calls for speculation.

6 A. Yes. I've heard that. But I've never  
7 seen one.

8 Q. Would it -- Have you seen an Inogen G3?

9 A. No.

10 Q. So would it surprise you if Inogen later  
11 came out with a device improving on the G1 that had  
12 separation cartridges to take out and put into the  
13 POC?

14 A. Would it surprise me? No.

15 Q. So you are not -- Beyond the Inogen one  
16 G1, which -- Do you know when that came out?

17 A. 2002 or '3 I think.

18 Q. So that's about 22 years ago, give or  
19 take, fair?

20 A. Yep.

21 Q. You're not familiar with any other Inogen  
22 POCs?

23 A. To my knowledge, I've never seen one,  
24 certainly have never touched one or worked on one.

25 Q. And in Paragraph 236, do you see that?

1 A. Yes.

2 Q. And you talk about Appendix 2, which is  
3 your materials considered in the preparation of this  
4 declaration; is that right?

5 A. Yes.

6 Q. And have you reviewed -- is Appendix 2  
7 complete or --

8 A. To the best of my knowledge.

9 Q. And that would list everything that you  
10 considered in forming your opinions in this  
11 declaration?

12 A. Except for knowledge that I've built up  
13 over decades.

14 Q. This was all the documents that you  
15 considered --

16 A. Yes.

17 Q. -- in forming your opinions?

18 A. Yes. I believe so.

19 MR. ATALLAH: All right. I don't have any  
20 further questions at this time.

21 MR. MASTERS: I have no questions for the  
22 witness. Thank you. That completes Dr. Knaebel's  
23 deposition.

24 (Discussion held off the record.)

25 THE COURT REPORTER: Is there read and

1 sign?

2 MR. MASTERS: Yes.

3 (Signature not waived.)

4 - - -

5 And, thereupon, the deposition was  
6 concluded at approximately 12:42 p.m.

7 - - -

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1 State of Ohio :  
2 County of Franklin: SS:

3 I, KENT S. KNAEBEL, PH.D., do hereby  
4 certify that I have read the foregoing transcript of  
5 my deposition given on January 19, 2024; that  
6 together with the correction page attached hereto  
7 noting changes in form or substance, if any, it is  
8 true and correct.

9  
10  
11 KENT S. KNAEBEL, PH.D.

12 I do hereby certify that the foregoing  
13 transcript of the deposition of KENT S. KNAEBEL,  
14 PH.D., was submitted to the witness for reading and  
15 signing; that after he had stated to the undersigned  
16 Notary Public that he had read and examined his  
17 deposition, he signed the same in my presence on the  
18 \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

19  
20  
21 Notary Public

22 My commission expires \_\_\_\_\_

23 - - -

24  
25

**CERTIFICATE**

State of Ohio :

SS:

County of Franklin:

I, Marilyn K. Martin, Notary Public in and  
for the State of Ohio, duly commissioned and  
qualified, certify that the within named witness was  
by me duly sworn to testify to the whole truth in the  
cause aforesaid; that the testimony was taken down by  
me in stenotypy in the presence of said witness,  
afterwards transcribed upon a computer; that the  
foregoing is a true and correct transcript of the  
testimony given by said witness taken at the time and  
place in the foregoing caption specified.

I certify that I am not a relative,  
employee, or attorney of any of the parties hereto,  
or of any attorney or counsel employed by the  
parties, or financially interested in the action.

IN WITNESS WHEREOF, I have set my hand and  
affixed my seal of office at Columbus, Ohio, on this  
23rd day of January, 2024.

*Marilyn Martin*

MARILYN K. MARTIN  
Notary Public in and for the State of Ohio  
and Registered Professional Reporter.

My Commission Expires October 16, 2026.

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