

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CASE NO. PGR2023-00008

HUHTAMAKI FLEXIBLE PACKAGING GERMANY GMBH & CO. KG,
Petitioner,

VS.

ADAP FLEXIBLES DENMARK SLAGELSE A/S,
Patent Owner.

ORAL DEPOSITION OF
STEPHEN MCCARTHY, PH.D.
Monday, November 20, 2023
9:00 a.m. MT

Reported by: Elisabeth A. Lorenz: RMR, CRR
Job No. 00030467

1 ORAL DEPOSITION of STEPHEN MCCARTHY,
2 PH.D., conducted at Holland & Hart, 555 17th
3 Street, Suite 3200, Denver, Colorado:

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11 Pursuant to notice, before Elisabeth A.
12 Lorenz, Registered Merit Reporter and Certified
13 Realtime Reporter.

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2 *STENOGRAPHER'S NOTE: All quotations from exhibits
3 are reflected in the manner in which they were read
4 into the record and do not necessarily indicate an
5 exact quote from the document.

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

2 * * *

3 STEPHEN MCCARTHY, PH.D.

4 was called as a witness, and after having been first
5 duly sworn, testified as follows:

6 E X A M I N A T I O N

7 BY MR. OGDEN:

8 Q Good morning. Thank you for being here.

9 Have you ever had your deposition taken
10 before?

11 A Yes.

12 Q So you probably know generally kind of some
13 guidelines, but I'm going to provide a few. It will
14 help make this easier and get us through it a little
15 more quickly.

16 So the first thing is, the court reporter
17 needs verbal answers, not head nods or shakes. And
18 if it's a yes or a no, she needs a yes or a no
19 rather than uh-huh or huh-uh, just to make sure that
20 the record is clear.

21 Is that fair?

22 A Yes.

1 Q And then I'm going to try not to talk over
2 you. I do it sometimes, and I apologize in advance.
3 I'm going to ask that you try to wait until I finish
4 my question. Sometimes I do -- as I'm thinking,
5 you'll think I'm done, and then there's a little bit
6 more. So we'll just correct that on the record.
7 But as best we can, if you can just give a pause
8 before I finish mine, then that way we can avoid
9 talking over each other.

10 Is that fair?

11 A Yes.

12 Q And then this isn't a race. If you want a
13 break, just let me know anytime. I'm happy to take
14 the break. The only thing I'll ask is that you
15 answer the question pending before we take the
16 break.

17 Is that okay with you?

18 A Yes.

19 Q Is there any reason that you can't give me
20 complete, accurate, and truthful answers today?

21 A I don't think so.

22 (Marked Exhibit 2014.)

1 BY MR. OGDEN:

2 Q So I'm going to hand you what's been marked
3 as Exhibit 2014. If you could take a look at that
4 and confirm for me that that is your declaration in
5 PGR2023-00008.

6 A Yes.

7 Q Thank you.

8 And is there anything that you need to
9 correct in Exhibit 2014 before we get started today?

10 A Yes.

11 Q And what is that? And you're welcome to
12 take the clip off if you need to. We're going to be
13 working with this document a lot. But we'll need to
14 try to keep it in order to hand it back to her at
15 the end.

16 What would you like to correct, sir?

17 A Paragraph 99, the third listing of PEI has
18 been mistyped, and it says PET.

19 Q PET?

20 A Yeah. It should be PEI.

21 Q So just for the record, that's paragraph 99
22 but on page 41, the last sentence of that paragraph

1 where it says PET, it should say PEI?

2 A Yes.

3 Q Anything else?

4 A Yeah, on paragraph 138, in the fifth line
5 down where it says 15 percent, it should have been
6 115 percent.

7 Q Anything else?

8 A Yes. On page 91 where it says 15A, it
9 should be the method according to Claim 14.

10 Q I wondered about that when I was looking at
11 that yesterday. Perfect.

12 Is that everything?

13 A That's everything as of right now.

14 Q That's pretty good, only three typos in
15 something this long.

16 All right. Great. Let's move forward a
17 little bit.

18 So is a multilayer film structure obvious if
19 it's one of a finite number of predictable
20 solutions?

21 MR. GETZOFF: Objection to form.

22 THE WITNESS: I guess I don't

1 understand your question.

2 BY MR. OGDEN:

3 Q Well, have you ever used the phrase a finite
4 number of predictable solutions?

5 A It's not something I use regularly.

6 Q Have you ever used that phrase in a PGR
7 before?

8 A Possibly.

9 Q Do you know what the phrase -- what does the
10 phrase a finite number of predictable solutions mean
11 to you?

12 A It means there is a finite number of
13 predictable solutions.

14 Q Well, is a multilayer film structure obvious
15 if it is one of a finite number of predictable
16 solutions?

17 MR. GETZOFF: Objection to form.

18 THE WITNESS: By obvious do mean that
19 it's not inventive?

20 BY MR. OGDEN:

21 Q Yes.

22 A I believe that there are structures that are

1 inventive that would not be obvious.

2 Q That's not my question.

3 My question is, is a multilayer film
4 structure obvious if it is one of a finite number of
5 predictable solutions?

6 MR. GETZOFF: Objection to form.

7 THE WITNESS: Can I refer to my report?

8 BY MR. OGDEN:

9 Q Oh, yes. Yeah, ask for anything you need.

10 A I guess my answer would be I don't know.

11 Q Let's take a look at paragraph 49 in
12 Exhibit 2014, and here you provide an opinion of the
13 level of skill in the art, correct?

14 A That is correct.

15 Q And I'm going to need to refer to a person
16 of ordinary skill in the art a bunch during the
17 deposition, and so I wanted to see if you have a
18 preference for a shorter term. I've seen POSA,
19 POSITA, and skilled artisan.

20 Is there one of those that you tend to use?

21 A POSITA.

22 Q POSITA.

1 So if I say POSITA, you'll know that I'm
2 referring to a person of ordinary skill in the art
3 according to your definition in paragraph 49,
4 correct?

5 A Yes.

6 Q And if you ever want to -- if I ask a
7 question about a POSITA and you're talking about a
8 different definition, will you let me know?

9 A I'll try to.

10 Q Would a POSITA have been motivated to modify
11 a film as needed to fall within an appropriate
12 thickness range to create a usable film for a
13 desired purpose?

14 MR. GETZOFF: Objection to form.

15 THE WITNESS: Can you repeat that?

16 BY MR. OGDEN:

17 Q Yes, sir.

18 Would a POSITA have been motivated to modify
19 a film as needed to fall within an appropriate
20 thickness range to create a usable film for a
21 desired purpose?

22 MR. GETZOFF: Same objection.

1 THE WITNESS: Can I have that one more
2 time maybe slower?

3 BY MR. OGDEN:

4 Q Sure.

5 Would a POSITA have been motivated to modify
6 a film as needed to fall within an appropriate
7 thickness range to create a usable film for a
8 desired purpose?

9 MR. GETZOFF: Objection to form.

10 THE WITNESS: I'm not sure.

11 BY MR. OGDEN:

12 Q You don't know? Okay. Let me ask it a
13 little more specifically, and this is long, so stay
14 with me, and I'll repeat it if I need to.

15 Would a POSITA have been motivated to modify
16 Riis' films as needed to fall within an appropriate
17 thickness range to create a usable film for Riis'
18 particular purpose of creating packaging suitable
19 for packaging an article for collecting or
20 administering a physiologically active substance
21 such as transdermal drug delivery patches?

22 MR. GETZOFF: Objection to form.

1 THE WITNESS: I don't know.

2 (Marked Exhibit 1001.)

3 BY MR. OGDEN:

4 Q I'm going to hand you Exhibit 1001, which is
5 U.S. Patent 11,260,624, and if I call that the
6 '624 patent, will you understand what I'm talking
7 about?

8 A Yes.

9 Q Does the '624 patent identify that the
10 thickness of any layer of the claimed film or
11 laminate is critical?

12 MR. GETZOFF: Objection to form.

13 THE WITNESS: So it's any thickness of
14 any laminate is critical?

15 BY MR. OGDEN:

16 Q Does the '624 patent identify that the
17 thickness of any layer of the claimed film or
18 laminate is critical?

19 MR. GETZOFF: Objection to form.

20 THE WITNESS: The thickness of any
21 layer of the claimed film?

22

1 BY MR. OGDEN:

2 Q Yes.

3 A Is critical?

4 Q Yes. Any of the films or laminates of
5 claims 1 through 13.

6 MR. GETZOFF: Same objection.

7 THE WITNESS: There is a claim
8 regarding loading.

9 BY MR. OGDEN:

10 Q So how does the '624 patent identify that
11 the thickness of a layer of the claim that discusses
12 loading is critical?

13 MR. GETZOFF: Objection to form.

14 THE WITNESS: What do you mean by
15 critical?

16 BY MR. OGDEN:

17 Q Have you ever used that phrase critical
18 before in a patent case?

19 A I don't believe I have.

20 Q You don't think so?

21 Does the '624 patent tie thickness to the
22 functionality of any layer of the films or laminates

1 of Claims 1 to 13?

2 MR. GETZOFF: Objection to form.

3 MR. OGDEN: And just to clarify, I want
4 to know if anywhere in the disclosure of the '624
5 patent. I'm referring to the claims, right, and
6 I'll ask my question again in a second.

7 BY MR. OGDEN:

8 Q But what I want to know is, is there any
9 teaching or disclosure in the specification, the
10 figures, any part of the '624 patent that ties the
11 thickness to the functionality of any layer that is
12 claimed in Claims 1 through 13?

13 A So specifically the word thickness?

14 Q Well, is there any portion of the '624
15 patent that a POSA would understand to tie the
16 thickness of any particular layer of any of the
17 claimed laminates or films to the functionality of
18 that layer?

19 A It might be the way you're asking it, but I
20 don't know.

21 Q What do you not understand about my
22 question? And that is a good thing. Let's go back.

1 I missed one earlier.

2 If you don't understand, please clarify with
3 me, because if you answer the question, I'm going to
4 assume that you understood it.

5 So what do you not understand about the
6 question?

7 A You were asking me whether there's a
8 thickness -- the POSA would understand whether
9 there's a thickness that's critical?

10 Q That was an earlier question. We can go
11 with that. That's fine, yes.

12 A Okay.

13 Q So you talk about thickness a bunch in
14 Exhibit 2014 in your declaration, right?

15 A Let me check and see.

16 Q So, for example, if you look at paragraph 93
17 of your report.

18 A Yes.

19 Q Let me know when you're there.

20 You used the word thickness one, two, three,
21 four, five, six, seven times in that paragraph.

22 Do you agree with that?

1 A You said five?

2 Q I think it's seven times.

3 A Seven times? Let me see.

4 Q Yes.

5 A Yes.

6 Q And what did you mean when you used the word
7 thickness there in paragraph 93 of Exhibit 2014?

8 A So in the first part, the .17 mils EAA
9 layer, the thickness is the .17 mil.

10 Q And what does .17 mil represent? What kind
11 of unit is mil?

12 A Thousandths of an inch.

13 Q Thousandths of an inch, so .17 mils is .17
14 thousandths of an inch thick, correct?

15 A Yes.

16 Q And here that's referencing the thickness of
17 the EAA layer disclosed in Riis; is that correct?

18 A Yes.

19 Q So now that we've oriented ourselves to what
20 the word thickness means as you've used it in your
21 report, as you used it in paragraph 93, what I want
22 to know is, does the '624 patent tie thickness to

1 the functionality of any of the layers that are
2 claimed in any of Claims 1 to 13?

3 MR. GETZOFF: Objection to form.

4 THE WITNESS: It appears they used
5 loading instead of thickness.

6 BY MR. OGDEN:

7 Q So back to my question, as you used the term
8 thickness in paragraph 93, does the '624 patent tie
9 thickness to the functionality of any of the layers
10 that are claimed in any of Claims 1 to 13?

11 MR. GETZOFF: Objection to form.

12 THE WITNESS: Again, I'm kind of
13 confused as to what you're asking, but there is a
14 loading, for example, range given for a tie layer of
15 functionality.

16 Is that what you're looking for?

17 BY MR. OGDEN:

18 Q Let's back up.

19 You introduced this term thickness in your
20 report, and we just looked at paragraph 93, correct?

21 A Yes.

22 MR. GETZOFF: Objection to form.

1 BY MR. OGDEN:

2 Q And then my understanding -- and correct me
3 if I'm wrong -- is that your opinion is that a POSA
4 would not have found the claims obvious because the
5 thickness of Riis' LDPE layer would indicate to a
6 POSA that it does not function as a tie layer.

7 Is that right?

8 MR. GETZOFF: Object to form.

9 THE WITNESS: Can you repeat that?

10 BY MR. OGDEN:

11 Q Sure.

12 Is it your opinion that a POSA would not
13 have found the claims obvious because the thickness
14 of Riis' LDPE layer would indicate to a POSA that it
15 does not function as a tie layer in Riis' film?

16 MR. GETZOFF: Objection to form.

17 THE WITNESS: I believe that the LDPE
18 layer in Riis is a bulk layer, a polyolefin bulk
19 layer. It is called that within the patent. And
20 one of the identifications of a bulk layer is that
21 it is thicker, has a higher thickness than that of a
22 tie layer.

1 And the .65-mil LDPE layer in Riis I
2 believe to be a bulk layer like it's disclosed, and
3 I do not believe it to be a tie layer.

4 BY MR. OGDEN:

5 **Q And one of the reasons that you've given is**
6 **that because it's .65 mils thick, the LDPE layer**
7 **would not function as a tie layer, correct?**

8 A That would be one of the reasons in addition
9 to its purpose being a bulk layer in that it serves
10 for heat sealability, structural integrity,
11 reduction of cost, and it's not multifunctional like
12 a tie layer would be in Riis, and it's located next
13 to a tie layer.

14 **Q When you just used the word multifunctional,**
15 **what did you mean?**

16 A I guess I would explain multifunctional in
17 that it has sort of two personalities, similar to
18 soap or detergent. There's a hydrophobic side and a
19 hydrophilic side to soap, and they are used to
20 disperse, you know, a hydrophobic oil with
21 hydrophilic water, for example.

22 And I think similarly, the multifunctional

1 nature of the tie layers disclosed in Riis would be
2 similar in that you'd have a copolymer, for example,
3 that might have a nonpolar functionality and a polar
4 functionality whereby it could adhere on one side a
5 polar layer to a nonpolar layer on the other side as
6 in the EAA tie layer, for example.

7 **Q Does the LDPE layer of Riis not adhere on**
8 **one side to a polar layer and on the other side to a**
9 **nonpolar layer?**

10 A The LDPE layer of Riis adheres to the
11 nonpolar side of the EAA and the nonpolar COC.

12 **Q As of December 29, 2015, did -- was it known**
13 **to use LDPE to bind polar materials?**

14 A I'm not sure what was known. I know that
15 within the specification of Riis that the tie
16 layer -- the multifunctional tie layers do bond --
17 are used to bond nonpolar and polar.

18 **Q Doctor, how long have you been in the field?**

19 A Over 30 years.

20 **Q And you're not aware whether LDPE was known**
21 **in 2015 for use in binding to polar materials? Is**
22 **that your testimony?**

1 A My testimony is that LDPE does not typically
2 bind to polar materials.

3 Q Wasn't it well known in the art as of
4 December 29, 2015, to use LDPE to bind to aluminum?

5 A I don't think so.

6 Q Now, another reason you gave earlier was --
7 that you believe that a POSA would not have
8 understood Riis' LDPE layer to be a tie layer is
9 because it's located next to another tie layer,
10 correct?

11 A That is a reason I gave, again, along with
12 the fact that it wasn't multifunctional and that it
13 was a bulk layer.

14 Q Sure.

15 But it's one of the reasons, right? I want
16 to talk about that reason.

17 It's one of the reasons?

18 A That was a reason that I gave.

19 Q When you say that it's next to another tie
20 layer, you're saying that the LDPE layer in Riis'
21 film is next to an EAA layer, correct?

22 A Yeah. Yes, it's located between the EAA

1 layer and the COC.

2 Q So if an LDPE layer is next to an EAA layer
3 in a film, can it ever serve -- can the LDPE layer
4 ever serve as a tie layer?

5 MR. GETZOFF: Objection to form.

6 THE WITNESS: It's my opinion that the
7 LDPE layer can ever serve as a tie layer as defined
8 by Riis.

9 BY MR. OGDEN:

10 Q Sir, that wasn't my question. I'm going to
11 ask it again.

12 MR. GETZOFF: I didn't hear his answer.

13 Did you say can ever serve or can never
14 serve?

15 MR. OGDEN: I thought he said never,
16 but I see here she's got ever.

17 MR. GETZOFF: Yeah.

18 THE WITNESS: Never.

19 MR. OGDEN: Obviously, if you want to
20 do a read and sign, we can make sure we get that one
21 right, because that -- I think that one could be
22 important.

1 BY MR. OGDEN:

2 Q So what my question is --

3 MR. GETZOFF: Do you mind if we just
4 ask him what he said?

5 MR. OGDEN: Yeah.

6 BY MR. OGDEN:

7 Q Do you want me to repeat the question, and
8 then you can -- so I said, so if an LDPE layer --

9 MR. GETZOFF: So you're saying he
10 didn't answer your question, so maybe your question
11 won't help him.

12 All I want to know is, can you repeat
13 your answer so we're clear on --

14 MR. OGDEN: You can read back what she
15 recorded if you want.

16 MR. GETZOFF: I'm going to read what
17 the reporter -- it's my opinion that the LDPE layer
18 can ever serve.

19 Did you mean to say ever serve or never
20 serve?

21 THE WITNESS: Never. Never.

22 MR. OGDEN: Are we comfortable with the

1 record now?

2 MR. GETZOFF: Yes, yes. Thank you,
3 Counsel.

4 MR. OGDEN: I just want a clean record.
5 Feel free, if we need to clean something up, let me
6 know.

7 MR. GETZOFF: Appreciate that.

8 BY MR. OGDEN:

9 Q So back to my question. You gave me an
10 answer about Riis.

11 I want to know generally can an LDPE layer
12 that is next to an EAA layer serve as a tie layer?

13 A Do you mean ever?

14 Q Yes.

15 A I'd say that's possible.

16 Q Taking a look at the '624 patent, Claim 10,
17 in fact, says, The method according to Claim 1
18 wherein at least one of the one or more layers of
19 the tie layer comprises an acrylic acid layer or a
20 polyethylene layer.

21 Do you see that?

22 A Yes.

1 Q So there LDPE stands for load density

2 polyethylene, correct?

3 A Yes.

4 Q And so LDPE would be a type of polyethylene

5 that could be the polyethylene layer of Claim 10,

6 right?

7 A I believe it could be.

8 Q And so putting that all together, LDPE could

9 serve as a tie layer according to an embodiment of

10 Claim 10, right?

11 A According to the '624 patent, not according

12 to Riis.

13 Q And then if we look at Claim 11, correct --

14 not correct. Sorry.

15 Let's look at Claim 11. It says, The method

16 according to Claim 1 wherein one or more layers of

17 the tie layer comprises an acrylic acid layer and a

18 polyethylene layer.

19 Do you see that?

20 A Yes.

21 Q So in one embodiment of Claim 11, the

22 acrylic acid layer could be ethylene acrylic acid,

1 correct?

2 A It could be possible.

3 Q And when I say ethylene acrylic acid, would
4 you agree with me that you can refer to that as EAA?

5 A You could.

6 Q All right. So Claim 11 is saying that the
7 one or more layers of the tie layer could have both
8 an acrylic acid layer and a polyethylene layer,
9 correct?

10 A That's what the '624 patent says.

11 Q Sure.

12 And a skilled artisan would understand those
13 would be adjacent to one another in the tie layer,
14 right?

15 A That's what the '624 patent discloses, not
16 what Riis discloses.

17 Q But Riis discloses an LDPE layer adjacent to
18 an EAA layer, doesn't it?

19 A Riis discloses an LDPE bulk layer adjacent
20 to an EAA tie layer.

21 Q Does the LDPE bulk layer have anything
22 special in it to make it a bulk layer?

1 A What do you mean by special?

2 Q Is there anything in the LDPE bulk layer of
3 Riis that's not LDPE?

4 A I don't know.

5 Q So you're using semantics to call it a bulk
6 layer. I want to ask you a question. Just answer
7 the question. It's not hard.

8 Is there an LDPE layer next to an EAA layer
9 in Riis?

10 MR. GETZOFF: Objection to form.

11 THE WITNESS: I'm not using semantics
12 to call it a bulk layer; I'm referring to what the
13 Riis patent calls it and the importance of its
14 function as a bulk layer.

15 BY MR. OGDEN:

16 Q Can you answer this question yes or no
17 without qualifying it?

18 Do you agree that Riis teaches an LDPE layer
19 adjacent to an EAA layer?

20 MR. GETZOFF: Objection to form.

21 THE WITNESS: Again, it teaches the
22 LDPE bulk layer adjacent to the EAA tie layer.

1 BY MR. OGDEN:

2 Q Sir, are you unwilling to answer the
3 question the way that I've asked it?

4 MR. GETZOFF: Objection to form.

5 THE WITNESS: I believe I've answered
6 it.

7 BY MR. OGDEN:

8 Q That's not the question I've asked.

9 I asked whether you were able to answer the
10 question, do you agree that Riis teaches an LDPE
11 layer adjacent to an EAA layer?

12 MR. GETZOFF: Objection, asked and
13 answered; and objection, form.

14 THE WITNESS: I think I've answered
15 that because the LDPE bulk layer is next to the EAA
16 tie layer.

17 BY MR. OGDEN:

18 Q But you're unwilling to answer it in the
19 form that I put it to you?

20 MR. GETZOFF: Objection to form, asked
21 and answered.

22 THE WITNESS: It seems like I've

1 answered your question.

2 BY MR. OGDEN:

3 Q I don't see how that's controversial, but

4 I'll move on. We'll come back to that.

5 A You don't see how it's controversial?

6 Q How it's controversial -- you know what, I

7 don't want to get -- I will show you a diagram, and

8 we can talk about it later.

9 MR. GETZOFF: That wasn't a question.

10 THE WITNESS: Okay.

11 MR. GETZOFF: That was counsel's

12 gratuitous comments.

13 MR. OGDEN: He is right, it is my

14 gratuitous comments on the record. He's exactly

15 right.

16 BY MR. OGDEN:

17 Q Let's go back to -- we talked about

18 thickness a little bit, and you referenced loading.

19 Do you remember that?

20 A I remember talking about thickness, and I

21 remember talking about loading.

22 Q So does the '624 patent tie loading to the

1 functionality of any layer that is claimed in

2 Claims 1 through 13?

3 MR. GETZOFF: Objection to form.

4 THE WITNESS: So, for example, in

5 Claim 1, the tie layer, the layer that has the

6 functionality of the tie layer has a loading in the

7 range of 7 to 20 grams per meter squared.

8 BY MR. OGDEN:

9 Q So is there anywhere in the full disclosure

10 of the '624 patent that indicates that that

11 particular loading is tied to the functionality of

12 the tie layer?

13 MR. GETZOFF: Objection to form.

14 THE WITNESS: Anywhere in the

15 specification?

16 BY MR. OGDEN:

17 Q Sure, or the figures.

18 A The question is whether there's

19 functionality.

20 Q So is there anywhere in the '624 patent that

21 indicates that the loading you identified of 7 to

22 20 grams per meter squared is tied to the

1 **functionality of the tie layer?**

2 MR. GETZOFF: Objection to form.

3 THE WITNESS: There is some information
4 where the tie layer is selected to provide
5 sufficient adhesion between the base layer and the
6 coextrusion layer.

7 BY MR. OGDEN:

8 **Q Can you tell me where you're reading from in**
9 **the patent?**

10 A It's on page 7.

11 **Q Can you give me a column and a line number,**
12 **please?**

13 MR. GETZOFF: Those are the column
14 numbers, and then there's lines down.

15 THE WITNESS: Oh, okay. It would be
16 Column 4. I believe it's line 20.

17 BY MR. OGDEN:

18 **Q And I don't see anywhere in that passage any**
19 **mention of 7 to 20 grams per meter squared.**

20 So is there somewhere in the '624 patent
21 that links a loading of 7 to 20 per meters squared
22 to functioning as a tie layer?

1 MR. GETZOFF: Objection to form.

2 THE WITNESS: That would be Claim 5.

3 BY MR. OGDEN:

4 Q All right. I think we're two ships in the
5 night. I'm going to ask a couple more questions,
6 and then maybe we can take a break.

7 What I'm trying to understand is, what in
8 the '624 patent tells me that if I'm at 7 to
9 20 grams per meter squared I will function as a tie
10 layer?

11 A Did you say 7 to 20 meters squared?

12 Q 7 to 20 grams per meter squared, the number
13 you pointed out in the claim that you said relates
14 to --

15 A Was it meter squared or grams per meter
16 squared?

17 Q Grams per meter squared, yes, sir.

18 A I believe you said meter squared. I'm
19 just...

20 Q I would like to not be here for seven hours,
21 but we can do that if we need to.

22 But if I'm referring to a loading, let's

1 just say that I'm always meaning grams per meter

2 squared unless I say otherwise. How about that.

3 A I'll try.

4 Q So let's step back.

5 You pointed to some claim language that

6 referred to the tie layer as being in the range of 7

7 to 20 grams per meter squared, correct?

8 A Indicating the loading that you asked me to

9 find.

10 Q Yes.

11 And so now I want to know, where in the '624

12 patent, if anywhere, does it tell a skilled artisan

13 that if a layer is at 7 to 20 grams per meter

14 squared that would be one indication that it's a tie

15 layer?

16 MR. GETZOFF: Objection to form.

17 THE WITNESS: So, for example, it says,

18 It has surprisingly been found that when coextruding

19 the tie layer and the contact layer according to the

20 disclosure, the respective layers can be thinner

21 while maintaining the overall mechanical and

22 chemical robustness of the final film and laminates

1 and wrappings made with the film.

2 It's on page 6, Column 2, line 63.

3 BY MR. OGDEN:

4 Q And where does that passage mention 7 to
5 20 grams per meter squared?

6 A It says tie layer, and then the tie layer in
7 the claim match.

8 Q And do you understand the claims in the
9 issued patent are not the same claims that were
10 filed in the application when this application was
11 filed?

12 A I guess I don't understand. You're asking
13 me for the functionality of the tie layer and the
14 thickness of the tie layer.

15 Q All right. Your opinion is that if it's too
16 thick, it can't be a tie layer, right?

17 A My opinion is, the LDPE that is .65 mils,
18 that that being a bulk layer defined by Riis and
19 going by the definition of Riis is a bulk layer and
20 not a tie layer.

21 Q So it's not your opinion that the thickness
22 is one of the reasons that a POSA would not

1 understand Riis' LDPE layer to be a tie layer?

2 MR. GETZOFF: Objection to form.

3 THE WITNESS: Did you say the thickness
4 is a part of it or the thickness is...

5 BY MR. OGDEN:

6 Q I read your report, and it seems very clear
7 that you say over and over again that Riis' .65-mil
8 layer is too thick to serve as a tie layer.

9 Do you disagree with that?

10 A I agree with that. I wrote it in my report.
11 It's a bulk layer.

12 Q And that's my point.

13 Where in the '624 patent does it tell me
14 that I should look to loading to know whether
15 something functions as a tie layer?

16 A The '624 patent is a different patent, and I
17 didn't use the definitions of the '624 patent to
18 define the function of the .65-mil LDPE bulk layer
19 that was listed in Riis. I used the definition of
20 Riis for the bulk layer defined in Riis.

21 Q I do understand that. Thank you.

22 MR. OGDEN: Let's take a break.

1 (Recess: 10:09 a.m. to 10:22 a.m.)

2 MR. OGDEN: Back on the record.

3 BY MR. OGDEN:

4 Q Does the '624 patent disclose any working
5 examples of the claimed films or laminates?

6 MR. GETZOFF: Objection to form.

7 BY MR. OGDEN:

8 Q Well, let's back up.

9 Do you know what a working example is? Do
10 you know what a working example is?

11 A I think it's an example of how to re-create
12 the invention.

13 Q Sure. That's a great definition, so let's
14 go with that definition.

15 So does the '624 patent disclose any working
16 examples of the claimed films or laminates?

17 MR. GETZOFF: Objection to form.

18 THE WITNESS: I see a summary of the
19 invention and then a number of embodiments.

20 BY MR. OGDEN:

21 Q Which embodiments that you're referencing
22 right now are working examples of any of the claims

1 of the '624 patent?

2 MR. GETZOFF: Objection to form.

3 THE WITNESS: So one that I guess I'll
4 start with is the embodiment, the base layer, which
5 is water and/or oxygen resistant, is selected from a
6 group consisting of metal foil, preferably aluminum
7 foil, polymers, polyamide, polyvinylidene chloride,
8 silicium oxide coated polyesters, and/or
9 fluoropolymers.

10 In a further embodiment, the tie layer
11 is constituted of one layer and wherein the layer is
12 a copolymer made of a material selected from a
13 copolymer of ethylene and acrylic acid, ethylene and
14 methacrylic acid and a terpolymer comprising
15 ethylene, acrylic ester and a third polymer, which
16 third polymer is preferably a glycidyl methacrylate,
17 and more preferably a maleic anhydride.

18 In a particular embodiment, the contact
19 layer comprises or is a polymer selected from a
20 group consisting of a cyclic olefin polymer, a
21 polyamide, or an ethylene vinyl alcohol.

22

1 BY MR. OGDEN:

2 Q Could you tell the court reporter where
3 you're reading in the patent because she's going to
4 have to go back and check all those chemical names?

5 A So it's on page 9, Column 7, starting at
6 line 20.

7 Q And why do you consider the disclosure that
8 you just read into the record to be a working
9 example?

10 A So you might need to combine it with the
11 steps where, A, providing a base layer;

12 B, coextruding a layer comprising a tie
13 layer and a contact layer to provide a coextrusion
14 layer;

15 C, coating the coextrusion layer to the base
16 layer;

17 D, allowing the coextrusion layer coated to
18 the base layer to adhere to the base layer to
19 provide a chemical-resistant film comprising the tie
20 layer and the contact layer formed as a coextrusion
21 layer coated to the base layer;

22 E, providing a highly aggressive substance

1 to the contact layer side of the film; and
2 F, sealing the chemical-resistant film,
3 preferably with heat sealing, in a way to provide a
4 hollow interior space for -- sealing the
5 chemical-resistant film preferably by heat sealing
6 in a way to provide a hollow interior space for
7 sealing the highly aggressive substance, said hollow
8 space having an interior side and an exterior side,
9 wherein the interior side of the film is the contact
10 layer of the coextrusion layer and the exterior side
11 of the film is the base layer.

12 **Q Returning to the passage that you read from**
13 **in Column 7, where does that tell you which --**

14 MR. GETZOFF: I'm sorry, do you just
15 want to get that citation in the record?

16 MR. OGDEN: Sorry, that was Column 8.

17 THE WITNESS: Yeah, Column 8 starting
18 at line 42.

19 BY MR. OGDEN:

20 **Q Returning to Column 7, so let's start with**
21 **the first passage you read, and it says, In one**
22 **embodiment, the base layer, which is water and/or**

1 oxygen resistant, is selected from the group
2 consisting of, and it then it lists several
3 possibilities.

4 Do you see that?

5 A Yes.

6 Q Where does this passage tell you which one
7 of those to choose?

8 MR. GETZOFF: Objection to form.

9 THE WITNESS: I believe it would be the
10 term is selected from the group, so you would select
11 from that group.

12 BY MR. OGDEN:

13 Q So when we talked about working examples
14 earlier, you said that would be something that would
15 allow you to re-create the invention, right? Do you
16 agree with that? I don't want to mischaracterize.

17 A I believe, yes.

18 Q So if I am a POSA and I'm reading this
19 disclosure and I choose from a base layer, one
20 that's easy for her to say, a fluoropolymer, am I
21 practicing the invention that's claimed in Claims 1
22 to 13?

1 MR. GETZOFF: Objection to form.

2 THE WITNESS: So in Column 13, it
3 chooses aluminum from that group.

4 BY MR. OGDEN:

5 Q Okay. Let's take a look at that.

6 And about what line number are you looking
7 at there?

8 A 10.

9 Q So that's one example choosing aluminum.

10 And then where is there an example that says
11 you need to choose aluminum and also a COC as the
12 contact layer and put them together?

13 MR. GETZOFF: Objection to form.

14 THE WITNESS: Column 16, Laminate 5.

15 BY MR. OGDEN:

16 Q Laminate 5, so that is around line 55 there?

17 A Yes.

18 Q All right. So there the tie layer is a
19 single layer, correct?

20 A I believe so.

21 Q And that single layer tie layer is a
22 terpolymer of ethylene, acrylic ester, and maleic

1 anhydride, correct?

2 A That is correct.

3 Q And then tell me -- I don't know this.

4 But is L-O-T-A-D-E-R 3410, is that a trade
5 name for the terpolymer that's described there?

6 A I believe so.

7 Q And then the contact layer is COC, correct?

8 A That is correct.

9 Q So does Laminate 5 meet the limitations of
10 Claim 1?

11 MR. GETZOFF: Objection to form.

12 THE WITNESS: I believe it would be for
13 the ones that had the loading range between 7 and
14 18 grams per meter squared.

15 BY MR. OGDEN:

16 Q Now, does Laminate 5 in Table 3 meet the
17 limitations of Claim 7?

18 MR. GETZOFF: Objection to form.

19 THE WITNESS: It would be for those
20 laminates that have loadings between 7 and 18 grams
21 per meter squared.

22

1 BY MR. OGDEN:

2 Q So it's your opinion that the laminate of
3 Claim 5 comprises -- includes one or more layers of
4 the tie layer that comprised a plurality of layers?

5 MR. GETZOFF: Objection to form.

6 THE WITNESS: I guess it would be -- or
7 in the one layer comprises the plurality of layers.

8 BY MR. OGDEN:

9 Q So --

10 A You said Claim 7, right?

11 Q Yes.

12 So what I want to know is, earlier we talked
13 about the tie layer as the terpolymer.

14 Does that tie layer comprise a plurality of
15 layers?

16 MR. GETZOFF: Objection to form.

17 THE WITNESS: It says, Wherein one or
18 more layers, so it would be the example, which is
19 just one of the layers.

20 BY MR. OGDEN:

21 Q Sure.

22 So in Laminate 5, there's one tie layer,

1 correct?

2 A I believe so.

3 Q And does that tie layer comprise a plurality
4 of layers?

5 MR. GETZOFF: Objection to form.

6 THE WITNESS: It depends on if -- a
7 plurality could just be one layer, it seems like in
8 this definition of 7, wherein the one or more
9 layers.

10 BY MR. OGDEN:

11 Q When you applied the plain and ordinary
12 meaning of the claims in your analysis, what is the
13 plain and ordinary meaning that you gave to the term
14 plurality?

15 MR. GETZOFF: Objection to form.

16 THE WITNESS: More than one.

17 BY MR. OGDEN:

18 Q So using that definition, does Laminate 5 --
19 does the tie layer of Laminate 5 comprise more than
20 one layer?

21 A I don't believe so.

22 Q Looking to Claim 8, does the tie layer of

1 **Laminate 5 consist of two layers?**

2 A I don't believe so.

3 **Q Then looking at Claim 10, does the tie layer**
4 **of Laminate 5 comprise an acrylic acid layer or a**
5 **polyethylene layer?**

6 A Possibly. It's an acrylic ester.

7 **Q Reading the specification, do you know one**
8 **way or the other?**

9 A I said possibly.

10 **Q Does the tie layer of Laminate 5 comprise an**
11 **acrylic acid layer and a polyethylene layer?**

12 MR. GETZOFF: Objection to form.

13 THE WITNESS: Possibly, because it
14 would then comprise -- it would be, you know,
15 ethylene and acrylic ester.

16 BY MR. OGDEN:

17 **Q Do you agree with me that Claim 11 requires**
18 **two layers, one being an acrylic acid layer and one**
19 **being a polyethylene layer?**

20 MR. GETZOFF: Objection, form.

21 THE WITNESS: So your question is
22 whether it's -- Claim 11 has two layers?

1 BY MR. OGDEN:

2 Q Yes.

3 My question is, do you agree with me that
4 Claim 11 requires two layers, one being an acrylic
5 acid layer and one being a polyethylene layer?

6 A I believe so.

7 Q So returning back to Laminate 5, does
8 Laminate 5 have two layers, one being an acrylic
9 acid layer and one being a polyethylene layer?

10 A I don't believe so.

11 Q Do you agree that modifying layer properties
12 of films and laminates, like thickness and
13 composition, were well within the skill of a POSA as
14 of December 29, 2015?

15 MR. GETZOFF: Objection to form.

16 THE WITNESS: You like these long
17 questions, huh?

18 Do I believe -- what was the rest?

19 BY MR. OGDEN:

20 Q Do you agree --

21 A Do I agree.

22 Q -- that modifying layer properties of films

1 and laminates, like thickness and composition, were
2 well within the skill of a POSA as of December 29,
3 2015, or a POSITA?

4 MR. GETZOFF: Objection to form.

5 THE WITNESS: So the question is that a
6 POSITA would actually modify these films?

7 BY MR. OGDEN:

8 Q The question is, do you agree that modifying
9 layer properties of films and laminates, like
10 thickness and composition, were well within the
11 skill of a POSITA as of December 29, 2015?

12 MR. GETZOFF: Same objection.

13 THE WITNESS: I don't know.

14 BY MR. OGDEN:

15 Q Do you agree that modifying layer properties
16 of films and laminates, like thickness and
17 composition, were well within the skill of a POSITA
18 as of May 6, 2019?

19 MR. GETZOFF: Objection to form.

20 THE WITNESS: Is that the same question
21 but you changed the date?

22

1 BY MR. OGDEN:

2 Q Yes, sir.

3 A I don't know.

4 Q Are your graduate students able to modify
5 the layer properties of films and laminates, like
6 thickness and composition, in order to achieve a
7 desired result?

8 A Are they able to modify?

9 Q Yeah.

10 Are they able to modify the properties of
11 different layers in films and laminates, properties
12 like thickness and composition, in order to achieve
13 a desired result?

14 MR. GETZOFF: Objection to form.

15 THE WITNESS: It's a very strange
16 question. My graduate students would be able to
17 choose a different resin, which has different
18 properties, but I don't think they could just
19 modify, you know, somehow the properties that are
20 given -- I guess I'm not -- I'm -- I don't
21 understand how you expect -- it's not clear. Your
22 question is not clear.

1 BY MR. OGDEN:

2 Q We'll come back to it.

3 As of December 29, 2015, was it known in the
4 art that adding additional layers to a film or
5 laminate could provide advantages?

6 MR. GETZOFF: Objection to form.

7 THE WITNESS: I would say possibly.
8 There would be some cases where it might be an
9 advantage.

10 BY MR. OGDEN:

11 Q As of December 29, 2015, was it known in the
12 art that adding additional layers to a film or
13 laminate can improve physical attributes of the film
14 or laminate?

15 MR. GETZOFF: Objection to form.

16 THE WITNESS: I mean, it's possible.
17 It could go either way. It's not clear just adding
18 something whether it would be a good thing or not.

19 BY MR. OGDEN:

20 Q As of December 29, 2015, was it known in the
21 art that adding additional layers to a film or
22 laminate could enhance process performance of the

1 film or laminate?

2 MR. GETZOFF: Objection to form.

3 THE WITNESS: Again, it's unknown

4 whether it would improve or not improve it.

5 BY MR. OGDEN:

6 Q As of December 29, 2015, was it desirable to
7 a POSITA to decrease the thickness of multilayer
8 films to make them cheaper to manufacture?

9 MR. GETZOFF: Objection to form.

10 THE WITNESS: I don't know.

11 BY MR. OGDEN:

12 Q Do you agree that where a prior art
13 reference discloses a loading range that is within
14 5 percent of a claimed loading range the claimed
15 range is obvious absent any criticality or
16 patentable association of the claimed loading range?

17 MR. GETZOFF: Objection to form.

18 THE WITNESS: Again, I don't know.

19 BY MR. OGDEN:

20 Q Let's take a look at page 38 of
21 Exhibit 2014, which is your declaration, and there's
22 a footnote at the bottom. And I'm going to read the

1 footnote into the record --

2 A What page?

3 Q -- but I want you to get there first.

4 Page 38.

5 A 38, yeah.

6 Q Footnote 1, so here it says, Even taking the
7 0.65-mil LDPE layer alone, it accounts for
8 21.38 percent of the thickness of the 3.04-mil
9 multilayer film in Example 5, thus falling outside
10 of Riis' disclosure.

11 Do you see that?

12 A I do see that.

13 Q What did you mean when you said that this
14 falls outside of Riis' disclosure?

15 A So the disclosure in Riis is the preference
16 for the tie layer being between 2 percent and
17 10 percent of the multilayer film's total thickness.

18 Q So when you wrote, Thus falling outside of
19 Riis' disclosure, you mean that it falls outside of
20 Riis' disclosure of a preference, correct?

21 MR. GETZOFF: Objection to form.

22 THE WITNESS: Yeah, I believe that is

1 what Riis teaches to be the preferred thickness of
2 the tie layer.

3 BY MR. OGDEN:

4 **Q** **Okay.**

5 **A** **Because if it's much larger than that, it**
6 **would not be considered to be a tie layer.**

7 **Q** **I was just confused, because we agree that**
8 **Riis does disclose a .65-mil LDPE layer, correct?**

9 **A** **As a bulk layer.**

10 **Q** **Sure. If you want to characterize it that**
11 **way, that's fine.**

12 **So it's within Riis' disclosure to have a**
13 **.65-mil LDPE layer, correct?**

14 **MR. GETZOFF: Objection to form.**

15 BY MR. OGDEN:

16 **Q** **It's within the four corners of Riis that he**
17 **has an example with a .65-mil LDPE layer, correct?**

18 **A** **Yes. The bulk layer is .65 mils, and it**
19 **would fall outside the interpretation of it being a**
20 **tie layer. It would definitely be a bulk layer. I**
21 **mean, I agree it's a bulk layer, and it falls within**
22 **the definition of bulk layer. And Riis agrees that**

1 it's a bulk layer, and it definitely is a bulk
2 layer.

3 **Q** It's just when I read the words that
4 something falls outside the disclosure, to me that
5 means it's not there.

6 But here when you said that, you're
7 referencing it's not within his preferred range for
8 a tie layer, correct?

9 **A** That's correct. It's definitely a bulk
10 layer, and it's within the range of bulk layers
11 within Riis.

12 **Q** Got it.

13 Let's take a look at paragraph 121 of
14 Exhibit 2014.

15 MR. GETZOFF: 2014?

16 MR. OGDEN: Yeah, Exhibit 2014.

17 I think I have the wrong paragraph.
18 Give me just a second. 49. I thought I was way
19 off.

20 BY MR. OGDEN:

21 **Q** Sorry, let's go to paragraph 49. It's on
22 page 17. I apologize.

1 Are you there?

2 So in paragraph 49, you provide your opinion
3 as to the definition of a POSITA, correct?

4 A That is correct.

5 Q And who came up with the definition of a
6 POSITA that appears in paragraph 49 of your
7 declaration?

8 A It would be me with consultation from the
9 lawyers.

10 Q And I don't want -- anytime today, I don't
11 want to know anything that you talked with your
12 lawyers about.

13 So if we go back up to paragraph 48, and
14 feel free to read the whole paragraph, I'm going to
15 focus in on the sentence that reads, Instead the
16 '624 patent discloses and claims narrow coextrusion
17 processing techniques.

18 You let me know when you're ready.

19 A Yeah, I'm ready.

20 Q As of December 29, 2015, were different
21 types of coextrusion techniques known in the art?

22 A As of?

1 Q December 29, 2015.

2 A 29, 2015 --

3 Q Do you understand why I'm using that date
4 over and over again, December 29, 2015? Do you
5 understand the importance of that date?

6 A You said December 29, 2015?

7 Q Yes, sir. That's correct.

8 Do you understand the importance of that
9 date --

10 A Yes.

11 Q -- to this matter?

12 A Yes.

13 Q And what is the importance of that date?

14 A It's the date that the EP Application
15 Number 15202962.5 was filed on.

16 Q And with respect to your analysis in this
17 matter and your declaration, how did the date that
18 the EP application was filed on affect your
19 analysis?

20 A So I would have considered that the prior
21 art was before that date.

22 Q And when you were determining the level of

1 skill in the art, did you utilize the December 29,
2 2015, date for your analysis and opinion?

3 A I believe so.

4 Q Now, back to where I was on my question, as
5 of December 29, 2015, were different types of
6 coextrusion techniques known in the art?

7 A Which paragraph are we on again?

8 Q I'm not on a paragraph; I'm asking a
9 question.

10 And you with your 30-plus years of
11 experience, and I believe you said that you were a
12 POSITA at the time of the -- as of December 29,
13 2015, correct?

14 A (Nonverbal response.)

15 Q Is that right?

16 A Yes.

17 Q You were probably one of extraordinary skill
18 in the art as of December 29, 2015, correct?

19 A Yes.

20 Q So as of December 29, 2015, were different
21 types of coextrusion techniques known in the art?

22 A Yes.

1 Q And what are all the types of coextrusion
2 techniques of which a POSITA would have been aware
3 as of December 29, 2015?

4 MR. GETZOFF: Objection to form.

5 THE WITNESS: Well, they could have
6 been knowledgeable of anything that existed at that
7 time.

8 BY MR. OGDEN:

9 Q I understand that.

10 I'm asking you to identify all of the known
11 coextrusion techniques as of December 29, 2015.

12 Like blown film coextrusion, was that known
13 as of December 29, 2015?

14 A I believe so.

15 Q What other types of coextrusion techniques
16 were known in the art as of December 29, 2015?

17 A Multilayer sheet coextrusion.

18 Q What else?

19 A One of the coextrusion techniques that I was
20 involved in it with was a surface compression
21 molding coextrusion technique.

22 Q When were you involved with surface

1 compression molding coextrusion?

2 A It's probably in my CV.

3 Q What was your involvement with surface
4 compression molding coextrusion?

5 A So at one point in time, I was the machine
6 operator for a machine in Austria where we
7 manufactured hoods for the Jeep Wrangler by the
8 surface finishing compression molding coextrusion
9 technique.

10 Q So --

11 A They were full-scale Jeep Wrangler hoods
12 that had a Class A paint finish, film finish.

13 Q So so far as of December 29, 2015, we have
14 known techniques, a blown film coextrusion and
15 surface compression molding coextrusion.

16 What other coextrusion techniques were known
17 at that time?

18 A Well, there would be two-layer coextrusion.

19 Q Okay.

20 A Three-layer coextrusion, four-layer,
21 five-layer.

22 There was a technique that I utilized

1 through melt splitting where we would produce
2 thousands of layers.

3 Q And this technique where you used melt
4 splitting to produce thousands of layers, does it
5 have some kind of name that you refer to it as?

6 A It was patented by Dow; I know that. They
7 probably had a name for it.

8 Q Now, you referenced two-layer, three-layer,
9 four-layer, and five-layer coextrusion.

10 Is there a particular type of apparatus
11 that's used to do any of those multilayer
12 coextrusions?

13 A So for the two-layer coextrusion, which I'm
14 probably the most familiar with, you would have --
15 or I had two separate extruders that fed into a feed
16 block, which produced a two-layer film that was
17 about six inches wide that you could coat onto paper
18 or foil or...

19 Q So do you have any experience with
20 three-layer coextrusion?

21 A Yes.

22 Q And what type of apparatus would have been

1 used for three-layer coextrusion?

2 A So for three-layer coextrusion, you would
3 need a third extruder and a third port in the feed
4 block. So the feed block I had could fit up to five
5 extruders in it. I only had two extruders, but
6 there were other feed blocks that I used that had
7 three extruders on them.

8 Q And did you physically operate those -- that
9 extruder apparatus yourself?

10 A So the two-layer coextrusion apparatus that
11 I owned, I operated and trained students on and
12 learned how to fly with that piece of equipment.

13 Q And did you ever use that apparatus for
14 three-layer coextrusion?

15 A I did not.

16 Q Did you ever use that apparatus for
17 four-layer coextrusion?

18 A I did not.

19 Q And did you ever use that apparatus for
20 five-layer coextrusion?

21 A I did not.

22 Q And when you said earlier that you learned

1 to fly on that with respect to two-layer
2 coextrusion, did you physically operate the machine?

3 A Yes. I set it up -- I bought it. I set it
4 up myself.

5 Q Okay.

6 A I ripped it apart, fixed it, yeah.

7 Q Now, is that -- I'm a molecular biologist.
8 I know a little bit about extrusion from some
9 battery stuff.

10 Is that a roll-type extrusion, or is there a
11 term for that, or is it just --

12 A Sheet extrusion.

13 Q Sheet extrusion? Okay.

14 Was there something known as cast film
15 extrusion that would have been known in the art as
16 of December 29, 2015?

17 A So this could be called cast film. I mean,
18 it's arbitrary. You know, film to sheet is
19 arbitrary at 10 mils --

20 Q Oh, I see.

21 A -- you know.

22 Q So what you're talking about is considered

1 cast, and then it would be film or sheet depending
2 on thickness?

3 A Yeah, thickness.

4 Q So we talked about blown film extrusion,
5 surface compression molding coextrusion, and then
6 what I'm going to call cast sheet or film extrusion,
7 and then a melt splitting process.

8 What other types of coextrusion techniques
9 were known in the art as of December 29, 2015?

10 A I can't remember them all.

11 Q Which type of coextrusion is required by the
12 claims of the '624 patent?

13 MR. GETZOFF: Objection to form.

14 THE WITNESS: Well, at least the
15 two-layer coextrusion onto aluminum.

16 BY MR. OGDEN:

17 Q And so you're saying that the '624 patent
18 requires at least a cast film or cast sheet
19 extrusion?

20 A That is correct.

21 Q And what portions of the '624 patent would a
22 POSITA view as requiring a cast film or cast sheet

1 **extrusion?**

2 A So the tie layer and contact layer
3 coextruded with a base layer such as metal foil
4 would be one.

5 Q And with reference to that, so is it because
6 you're coating onto an aluminum foil, that's why a
7 POSITA would know that you're doing a cast sheet or
8 cast film coextrusion?

9 A I mean, it's a melt coextrusion onto a sheet
10 of aluminum. I mean --

11 Q You may be telling me it's completely
12 obvious. It just says --

13 (Cellular phone interruption.)

14 MR. OGDEN: Sorry.

15 THE WITNESS: Sorry.

16 MR. OGDEN: Do you need to take it?

17 Because mine will ring through if it's, like, my
18 wife, and I have to take it. I also have it set if
19 I get three calls in a row it rings through.

20 BY MR. OGDEN:

21 Q So this is probably me because I don't know
22 this field that well.

1 What I'm trying to understand is, it just
2 says coextrusion all the way through the patent; I
3 don't see where it specifies. But I just want to
4 understand.

5 It's your opinion that a POSITA would know
6 that it's this cast sheet or cast film extrusion
7 just by the way it's disclosed?

8 A Yes.

9 Q That makes sense to me.

10 I'm almost done with this line of questions,
11 and then we can take a break, or we can take one
12 now. It's up to you.

13 What do you want to do?

14 MR. GETZOFF: I say we finish the line.

15 BY MR. OGDEN:

16 Q Take a look back at Claim 8 for me. We'll
17 use that one as an example.

18 And with reference to Claim 1 from which it
19 depends, Claim 8 would require coextruding three
20 layers, correct?

21 A Yes, it appears so.

22 Q And you don't have any hands-on experience

1 with three-layer cast sheet or cast film extrusion,
2 do you?

3 A Yes.

4 Q What is your experience with three-layer
5 cast sheet or cast film extrusion?

6 A We had a three-layer coextrusion line at the
7 university that was not mine. It was owned by the
8 department.

9 Q Do you have any hands-on experience --

10 A Yes.

11 Q -- operating the three-layer coextrusion?

12 A Yes.

13 Q And what did that experience consist of?

14 A It consisted of trials for, you know,
15 experiments that we were doing mainly to look at,
16 you know, different polymers and the extrusion of
17 them.

18 Q Okay.

19 A Sometimes they were companies that wanted to
20 come in to try out the extrusion to see were they
21 polymers.

22 Q And when you're doing -- when you were doing

1 this three-layer coextrusion, what are the various
2 parameters that you have to set for the coextrusion
3 apparatus? So, for example, you'd have to choose a
4 feed block, right?

5 A Yes.

6 Q And you'd actually have to choose three feed
7 blocks; is that right?

8 A No.

9 Q Because -- you're going to have to help me
10 through this because I don't know how it works, and
11 you've done it before.

12 So you choose a feed block; that's one
13 parameter.

14 Kind of what are the differences in the feed
15 blocks? Is it width, height? How does that work?
16 Volume?

17 A So at the uni- -- I'm just talking about
18 the line --

19 Q Yeah, let's stick with that one.

20 A We had one feed block.

21 Q Okay.

22 A So it produced three layers, that one feed

1 block. And so you would then choose the -- well,
2 very similar to my report where it goes through --
3 can I --

4 Q Yeah, you can always refer to your report.
5 That will help me. Then I can read it again later.

6 A So you have --

7 Q Sorry, can you tell me where you're reading
8 from?

9 A Paragraph 58.

10 Q Perfect. Thank you.

11 So here I see temperatures might be one
12 parameter; is that right?

13 A Right.

14 So you have temperatures in each zone in the
15 extruder.

16 Q Okay.

17 A And then you have a temperature for that
18 channel in the feed block.

19 Q So in a three-layer coextrusion, would there
20 be three channels?

21 A There would be three channels.

22 Q And would you need to set a different

1 temperature for each zone of the three channels?

2 A Typically, you'd set one temperature.

3 Q And how would you determine what temperature
4 to set?

5 A Trial and error.

6 Q Is that what you meant when you said, These
7 temperatures are used as a baseline guide, though
8 adjustments are made to optimize the process?

9 A Yes.

10 Q So temperature is one parameter.

11 Are there any other parameters?

12 A The screw speed.

13 Q And would that be set differently for each
14 of the channels or the same?

15 A It would be set depending on whether the
16 channels were the same thickness.

17 Q So you would need to choose a thickness for
18 the channel first?

19 A You need to choose what thickness you'd want
20 to come out and then adjust the screw speed to
21 match.

22 Q So the screw speed ultimately dictates --

1 A How much --

2 Q -- the thickness at which it exits the
3 channel?

4 A Well, it -- yes, it's related -- it's
5 proportional.

6 Q Sure. Okay. That makes sense.

7 A Yeah.

8 Q So we've got screw speed and temperature.
9 What else?

10 A Then there's the takeoff.

11 Q What is that?

12 A So, for example -- so you -- for this
13 process, you'd have aluminum film that would come
14 up, and the melt would be deposited onto the
15 aluminum film.

16 Q So the takeoff, is that how fast the film is
17 rolling out to take the coextrusion?

18 A So that's how fast the aluminum foil is
19 going up.

20 Q So we've got screw speed, temperature, and
21 takeoff.

22 Any other parameters that you need to input?

1 A Then you'd have -- typically, we went
2 through a roll stack.

3 Q Okay.

4 A And the roll stack would be the temperature
5 of the roll stack and the speed of the roll stack.

6 Q And what is the roll stack?

7 A The roll stack is cylinders of polished
8 steel that have water going in one end and water
9 coming out the other. And the water then goes
10 through a heat exchanger, and that heat exchanger
11 determines the temperature that you send to each of
12 those rolls.

13 Q And how many rolls are in the stack?

14 A You can have as many as you want.
15 Typically, we had three.

16 Q And do you have to individually adjust the
17 temperature for each of the three?

18 A And speed.

19 Q And speed.

20 So we have screw speed, temperature,
21 takeoff, and roll stack temperature and speed.

22 Any other parameters you need to input?

1 A So you would monitor pressure at the end of
2 the extruder.

3 Q And why is that important?

4 A So that -- you could add -- and typically,
5 we did add screen packs to -- so in a single screw
6 extruder when you have molten polymers, you have
7 very little mixing, so there's not good uniformity.
8 So you have the screen pack to provide back pressure
9 so that you get mixing occurring to create more
10 uniformity.

11 An alternative is you could go into a gear
12 pump.

**13 Q So you would need to use something, whether
14 it be a gear pump or a screen pack, to provide the
15 desired pressure; is that correct?**

16 A Correct.

**17 Q We have screw speed, temperature, takeoff,
18 roll stack temperature and speed, and desired
19 pressure.**

**20 Is there any other input or parameter of
21 concern when operating this apparatus?**

22 A There may be others.

1 MR. OGDEN: Let's stop there, because
2 I'm not going to get to the end of this, and I would
3 like a break as well, but we're almost to the end of
4 that question. Thank you.

5 Let's go off the record.

6 (Recess: 11:34 a.m. to 11:46 a.m.)

7 MR. OGDEN: Back on the record.

8 BY MR. OGDEN:

9 Q So when we left off, we were talking about
10 some of the parameters that would be used in a cast
11 sheet or cast film extrusion of a three layer. And
12 we had screw speed, temperature, takeoff, roll stack
13 temperature and speed, and desired pressure.

14 And would all of those parameters also apply
15 to a single-layer extrusion?

16 A So the -- each ex- -- so the temperature of
17 each extruder.

18 Q Right.

19 But, say, I just wanted to coat -- and I
20 don't know if this is something you would really do.

21 But if I wanted to just coat EAA onto
22 aluminum, I would still need to designate a screw

1 speed, a temperature, a takeoff, a roll stack
2 temperature and speed, and achieve a desired
3 pressure, right?

4 A You'd have the same process. The difference
5 in coextrusion is the interaction between the two
6 layers, and that's the part that is really hard
7 because you don't have that in single screw.

8 Q And of those parameters we discussed, which
9 of those would affect your ability to execute a
10 coextrusion?

11 A All of them.

12 Q All of them? Okay.

13 And the '624 patent doesn't provide any
14 guidance as to screw speed, temperature, takeoff,
15 roll stack temperature and speed, or desired
16 pressure, does it?

17 A Do you want me to check?

18 Q I just want to know if you agree that it
19 does not disclose any of those.

20 A I'll check.

21 So was the question that it does have that?

22 Q No. The question is -- and why don't we go

1 to Column 13, line 19.

2 A Yeah, that's what I just found.

3 Q Let me ask it this way.

4 The only guidance as to the parameters we
5 just discussed, which are screw speed, temperature,
6 takeoff, roll stack temperature and speed, and
7 desired pressure, are discussed at Column 13,
8 lines 11 to 18, correct -- sorry, lines 19 to 24,
9 correct?

10 A Well, there's -- that information there is
11 specific about, you know, the coextrusion. And I
12 was going to say, there's also the language of the
13 glass transition and melting points.

14 Q And why is the language of the glass
15 transition and melting points significant?

16 A It would give you a range that you have to
17 be higher than.

18 Q And so within the range of -- at Column 13,
19 line 20, within a more preferred range of 270 to
20 300 degrees Celsius, it would be up to a skilled
21 artisan to perform some experiments in trial and
22 error to land on the correct temperature, right?

1 MR. GETZOFF: Objection to form.

2 THE WITNESS: A lot of know-how and
3 trial and error and adjustments of the other things
4 we mentioned.

5 BY MR. OGDEN:

6 Q And then there's this range of the speed of
7 the application of coating of 150 to 600 meters a
8 minute.

9 Do you see that?

10 A Yes.

11 Q Which speed is that with reference to these
12 different parameters that we talked about?

13 A In that case there, it was the aluminum
14 speed.

15 Q That's the takeoff?

16 A Yeah.

17 Q And so, I mean, that seems like a pretty
18 wide range to me.

19 Have you used ranges before in your
20 experience of a takeoff as low as 150 meters a
21 minute?

22 A Much lower.

1 Q Much lower.

2 Have you ever used something as high as
3 600 meters a minute?

4 A No.

5 Q So it would be up to the skilled artisan
6 where in the range would be optimal?

7 A Yeah. Again, the reason that -- I mean, one
8 of the reasons that we went much slower than that
9 was it was experimental that we were doing. It
10 was -- most of it was spent in trial and error and
11 the amount of waste.

12 Q Sure.

13 A The amount of waste, it's better for us to
14 go slow.

15 Q I mean, what I'm just trying to understand
16 is, one of skill in the art as of December 29, 2015,
17 reading this patent would have known how to take
18 this disclosure and then optimize these various
19 parameters to achieve the claimed coextrusions,
20 right?

21 A I think the important thing is that one of
22 skill in the art of coextrusion would appreciate the

1 difficulty of inventions like this.

2 **Q** Okay.

3 **A** I think that people who think, oh, just a
4 push and it goes, they don't appreciate how hard it
5 is to get something to work and that there is a lot
6 of effort that goes into this.

7 **Q** So a POSITA reading this disclosure as of
8 December 29, 2015, they would have been able to take
9 this disclosure and practice the claimed invention
10 without any unreasonable experimentation, right?

11 **A** Possibly. If they had experience in
12 coextrusion, if they had the right equipment. And a
13 lot of times it's luck. A lot of times it's just
14 luck, you know, as to how much time it takes you.

15 **Q** If they had this B-O-B-S-T, Bobst equipment
16 suitable for extruding and laminating films, would
17 they need at least a year of hands-on coextrusion
18 experience to be able to practice the claims of the
19 invention without unreasonable experimentation?

20 MR. GETZOFF: Objection to form.

21 THE WITNESS: You're saying that they
22 would need -- that if they had no experience, they

1 would need at least a year before --

2 BY MR. OGDEN:

3 Q Well, I'm asking if they have this
4 equipment, so they told you what equipment to get.
5 I could even go out and talk to Bobst and say, what
6 do I need, but I don't have a year of hands-on
7 coextrusion experience.

8 So would someone who had one year of
9 hands-on coextrusion experience be able to practice
10 the claimed invention without unreasonable
11 experimentation?

12 A Oh, if they had the one year?

13 Q Yes.

14 A Possibly.

15 Q You don't know one way or the other?

16 A It depends on the person, depends on what
17 kinds of experience they had.

18 Q Let's take a look at paragraph 171 of your
19 declaration, which is Exhibit 2014, and I'm going to
20 read it into the record slowly hopefully.

21 Petitioner's assertion that one of skill in
22 the art would simply apply Riis to come to the

1 invention of the '624 patent as set forth in the
2 challenged claims also ignores Riis' express
3 teachings away from using multiple adjacent adhesive
4 layers. In light of this teaching away, it is my
5 opinion that a person of ordinary skill in the art
6 would not be motivated to modify Riis to come to the
7 invention of the '624 patent as set forth in the
8 challenged claims.

9 Do you see that?

10 A I see that.

11 Q What is your understanding of the concept of
12 teaching away as that concept applies to patent law?

13 A My idea is that Riis discloses, you know,
14 discloses adhesive layers that should be within a
15 preferable range.

16 Q The 2 to 10 percent range?

17 A The 2 to 10 percent range.

18 And that if you were going away from that,
19 that would be teaching away.

20 Q Okay.

21 A So if you were going thicker.

22 Q And going back to my first question more

1 generally, what's your understanding of the concept
2 of teaching away as that concept applies to patent
3 law?

4 MR. GETZOFF: Objection to form.

5 THE WITNESS: Something that -- you
6 know, the patent will teach you how to succeed in
7 getting, you know, what they invented, and they give
8 you information on how to head in the opposite
9 direction. And that's teaching towards; in the
10 opposite direction is teaching away.

11 BY MR. OGDEN:

12 Q Does Riis disparage using a .65-mil LDPE
13 layer between the COC layer and the EAA layer?

14 A Riis teaches that using a .65-mil LDPE layer
15 as a bulk layer for the purpose of a bulk layer, and
16 that's what I believe -- that's my opinion of what
17 it teaches.

18 MR. OGDEN: Do we have Riis?

19 THE WITNESS: We have to go through all
20 of that?

21 BY MR. OGDEN:

22 Q Possibly. It depends on what you have to

1 say.

2 (Marked Exhibit 1004.)

3 BY MR. OGDEN:

4 Q This is Exhibit 1004. It's already marked.

5 And let's go to paragraph 173. So in Riis, he has

6 these brackets, and then there's usually two zeros

7 and then a number. And those are the paragraph

8 numbers. So this is page 45, paragraph 173.

9 Are you there? Yeah?

10 A Yeah.

11 Q Sorry, I'm in my own world.

12 This is Example 5, which has been the

13 subject of a lot of our discussion.

14 Here it says in paragraph 173 that Example 5

15 is an example of the invention, correct?

16 A That is correct.

17 Q Of Riis' invention, right, alleged

18 invention?

19 A Yeah.

20 Q So you agree with me that Riis is teaching

21 one of skill in the art to make Example 5, correct?

22 A I guess I -- I believe that if you follow

1 the -- that the purpose of this is to teach the
2 invention.

3 Q Sure.

4 A Is that what your question was?

5 Q Yeah.

6 He's teaching you that Example 5 is an
7 example of the invention that one of skill in the
8 art would want to make according to him, right?

9 A I don't know if it's a male or a female.

10 Q Sorry. You're right. I don't either.

11 A I think it's a female.

12 Q It very much well be, and that's not a good
13 assumption.

14 It is Mrs. Riis, so, yes.

15 So returning to my question.

16 Mrs. Riis is teaching you or the other
17 inventors -- let me say the inventors are teaching
18 you that Example 5 is an example of the invention
19 that one of skill in the art would want to make,
20 correct?

21 A I believe so.

22 Q So you're not providing an opinion that Riis

1 is teaching away from making Example 5, correct?

2 A Are you talking about when I --

3 Q Yeah, here is what I'm trying to get at, and
4 then I'll ask a full question.

5 I just want to understand if you're saying
6 that the teaching away is from creating Example 5 at
7 all or if the teaching away is just using an LDPE
8 layer as a tie layer. So here is my question.

9 You are not providing an opinion that Riis
10 is teaching away from making Example 5, correct?

11 A That is correct.

12 Q It's your opinion that Riis teaches away
13 from using LDPE as a tie layer; is that right?

14 A It's my opinion that labeling or calling the
15 LDPE -- the .65 LDPE bulk layer a tie layer is
16 teaching away.

17 Q So let me -- I may be saying the exact same
18 thing.

19 So it's your opinion that Riis teaches away
20 from labeling the .65-mil LDPE bulk layer of
21 Example 5 as a tie layer?

22 A Correct.

1 Q And then if we look at your declaration at
2 paragraph 205, so, again, Exhibit 2014, within that
3 paragraph, it's at the end of the page, it starts,
4 As also noted above, the disclosure of Riis teaches
5 away from and suggests that the .65-mil LDPE layer
6 of the eight-layer film is serving its primary
7 purpose as a bulk layer based on Riis' desired
8 thickness of a tie layer with respect to the overall
9 film and the relative thickness of the .17-mil EAA
10 layer and the .65-mil LDPE layer.

11 Do you see that?

12 A I do see that.

13 Q And so is this the same opinion that Riis
14 teaches away from labeling the .65-mil LDPE bulk
15 layer of Example 5 as a tie layer?

16 A This is sort of written funky, huh?

17 Q That's why I'm asking.

18 A Yeah. I agree.

19 I believe that Riis teaches that the .65-mil
20 LDPE layer of the eight-layer film is serving its
21 primary purpose as a bulk layer and teaches away
22 from calling it a tie layer.

1 Q So do you agree, then, that the teaching
2 away you're referencing in paragraph 205 is the same
3 teaching away that you're referencing in
4 paragraph 171?

5 A So you're saying 205 and 171?

6 Q Yeah, I'm just trying to make sure that
7 there's not some teaching away that I'm unaware of
8 that you're talking about.

9 Earlier I think what we agreed on with
10 paragraph 171 was the teaching away there is a
11 teaching away of labeling the .65-mil LDPE bulk
12 layer as a tie layer.

13 So I'm trying to make sure that in
14 paragraph 205 when you reference teaching away, it's
15 this teaching away from labeling the .65-mil LDPE
16 bulk layer as a tie layer?

17 A Well, not just labeling but accepting the
18 fact that it is a bulk layer and not a tie layer.

19 Q But it's not some different teaching -- I
20 don't want to find out that you were talking about a
21 different teaching away in these two paragraphs.
22 That's what I'm trying to confirm.

1 A I don't believe that -- I believe that the
2 primary purpose is that the LDPE in Riis is a bulk
3 layer and not a tie layer.

4 Q Got it. All right.

5 Do you agree that as of December 29, 2015, a
6 POSITA would have known that, where a coextrusion
7 process is used, it is important that the polymers
8 used to form a multilayer film be compatible within
9 a relatively close temperature range so they may be
10 extruded through a common die?

11 MR. GETZOFF: Can you read that one
12 more time?

13 BY MR. OGDEN:

14 Q Sure.

15 Do you agree that as of December 29, 2015, a
16 POSITA would have known that where a coextrusion
17 process is used, it is important that the polymers
18 used to form a multilayer film be compatible within
19 a relatively close temperature range so they may be
20 extruded through a common die?

21 A What do you mean by compatible?

22 Q Compatible.

1 Don't polymers need to be compatible so they
2 don't delaminate from each other?

3 A No.

4 Q No?

5 A I mean, there's a lot of different things of
6 compatibility. You know, there's a lot of different
7 measures of compatibility. And, you know, you like
8 to have sufficient adhesion between the layers.

9 Q How about this.

10 Do you agree that as of December 29, 2015, a
11 POSITA would have known that where a coextrusion
12 process is used, it is important that the polymers
13 used to form a multilayer film be within a
14 relatively close temperature range so they may be
15 extruded through a common die?

16 A Do you mean that the temperature of the
17 melts -- are you talking about -- I guess I'm
18 wondering whether we're talking about, you know,
19 transition temperatures or if you're talking about
20 just temperature.

21 Q So what I want to know is, before the '624
22 patent, was it known in the art that the melt

1 temperatures, I guess as you're using it, needed to
2 be relatively close so they may be extruded through
3 a common die when performing coextrusion?

4 A So just so I don't answer it wrong, I
5 believe that the '624 patent brings up a matching of
6 melting profiles where polymers go from a solid
7 state to a viscous liquid state and that they were
8 matching those characteristics.

9 Q Is it your opinion that the inventors of the
10 '624 patent were the first ones to realize that?

11 A Possibly.

12 (Marked Exhibit 1025.)

13 BY MR. OGDEN:

14 Q So I'm going to hand you Exhibit 1025.

15 And before I do -- and I don't have your CV
16 in front of me -- did you work at Dow? I can pull
17 it out and look, but -- or did you ever work for
18 Dow Chemical?

19 A So when I worked for the university, I did
20 receive funding from Dow.

21 Q Do you know a Mr. Jeffrey Bonekamp?

22 A I don't think so.

1 Q Do you know a Stephen Skapik?

2 A I don't believe so.

3 Q Well, here is Exhibit 1025, and if you could
4 turn to page 31. This one is a little weird because
5 it does not have paragraphing numbers. I guess
6 that's how they are internationally.

7 So page 31 and lines 7 through 9, it reads,
8 If a coextrusion process is used, it is important
9 that the constituents used to form a multilayer film
10 be compatible within a relatively close temperature
11 range so they may be extruded through a common die.

12 Do you see that?

13 A I see that.

14 Q Do you disagree with that statement?

15 A I don't disagree with that statement.

16 Q Guess what, you can put that one away. I'm
17 not going to take you through any more of that one.
18 That was a quick one.

19 What is a base layer?

20 A In which?

21 Q What would a POSITA consider a base layer to
22 be with respect to the '624 patent?

1 A So it would be something similar to the
2 aluminum foil or the other -- the group, you know,
3 polymers, polyamide, polyvinyl chloride, silicon --
4 silicium oxide coated polyesters, and/or
5 fluoropolymers.

6 Q Let's take a look in your declaration at
7 paragraph 121. And the first sentence there says,
8 Except as discussed below regarding the terms
9 aggressive chemical-resistant film and loading, I
10 applied the plain and ordinary meaning for the
11 remaining terms of the '624 patent as a person of
12 ordinary skill in the art would understand them at
13 the time of the invention.

14 Do you see that?

15 A Yes.

16 Q And it may help if you pull up the patent
17 and take a look at Column 11, lines 64 to 67.

18 But my question is, what is the plain and
19 ordinary meaning that you applied to the term film
20 as that term is used in the claims of the '624
21 patent?

22 And I can ask it again in a minute, so

1 Column 11, lines 64 to 67.

2 Do you want me to ask it again?

3 A No. I mean, you want to know what --

4 Q Is that the plain and ordinary meaning that
5 you applied to the term film in your analysis of the
6 patent, what appears at Column 11, lines 64 to 67?

7 A Well, that's what the patent defines film
8 as, which is what I would use based on the patent,
9 what they use.

10 Q And that is the definition of film that you
11 used when you were analyzing the '624 patent?

12 A I'm not sure if I used the word film in that
13 way, but that's what they define as film.

14 Q So what definition did you apply to the word
15 film when you were performing your analysis here?

16 A I'm not sure.

17 Do you have an example that you want me
18 to --

19 Q Well, you said that you used the plain and
20 ordinary meaning. I want to know what plain and
21 ordinary meaning you applied to the term film.

22 A So the plain and ordinary meaning of the

1 word film is just, you know, a sheet of plastic that
2 is less than 10 mils in thickness. That's typically
3 the plain and ordinary.

4 But this is a different -- where it has a
5 base layer coated with a coextrusion layer
6 comprising a tie layer and a contact layer or a base
7 layer laminated with a tie layer and a contact
8 layer.

9 **Q** So is it your opinion that a POSITA reading
10 the claims of the '624 patent would have applied a
11 definition to film that required that it be 10 mil
12 thick or less?

13 **A** No, that's not --

14 **Q** Okay.

15 **A** No, no, no, that's not what I said.

16 That the '624 patent defines it in this way.

17 **Q** Okay.

18 **A** And so this should be used for the '624
19 patent.

20 **Q** So when you just gave me this other
21 definition that you said was the plain and ordinary
22 meaning that related to the thickness, what

1 significance does that have to your opinion?

2 A That would be outside of the '624 patent.

3 Q So that's not the plain and ordinary meaning
4 that you applied in your analysis? I'm just trying
5 to figure out. So this claim -- let's go back to
6 Claim 1.

7 It has the word film, right?

8 So if you want to analyze if the claim is
9 obvious or not, then you need to know what the word
10 film means, don't you?

11 A Yes.

12 Q And so what is the definition that you
13 applied in your analysis to the term film as it
14 appears in Claim 1 of the '624 patent?

15 A The film in Claim 1 for the '624 patent
16 would be a base layer coated with a coextrusion
17 layer comprising a tie layer and a contact layer.

18 Q So sticking with that page there, my next
19 question is, is the meaning that you applied to the
20 term laminate as that term is used in the claims of
21 the '624 patent, is it what we see at Column 12,
22 lines 6 to 8, the film to which a further layer is

1 laminated such as a first outer layer?

2 A Yeah, I see what you mean. Like, in 12, it
3 says, Using an EVOH film, and there's a contact film
4 that may be laminated to the base layer.

5 Q So go with me to Column 12 and look at
6 lines 6 to 7, and there it says, The term laminate,
7 according to the disclosure, contemplates the film
8 to which a further layer is laminated such as a
9 first outer layer.

10 Do you see that?

11 A I do see that.

12 Q And is that the definition that a POSITA
13 would have applied to the term laminate in the
14 claims of the '624 patent?

15 MR. GETZOFF: Objection to form.

16 THE WITNESS: It would be something
17 particular to the '624 patent -- I mean, the '624
18 patent is defining it this way.

19 BY MR. OGDEN:

20 Q So is that what you understand the term
21 laminate as used in the claims of the '624 patent to
22 mean?

1 A I'm not sure whether there's -- I just saw
2 an incidence of film that's not the film that they
3 defined. So I'm not sure if there's other instances
4 of laminate that's not this definition of laminate.

5 Q So they describe a film in the specification
6 that's not consistent with the definition of film
7 that is provided at Column 11, lines 64 to 67?

8 A I think it looks like most of the film is
9 defined that way.

10 Q So I need to understand, what is your
11 opinion as to the meaning that a POSITA would apply
12 to the claims of the '624 patent with respect to the
13 term film?

14 A So regarding the '624 patent, they would
15 look to the definition, yeah.

16 Q All right. And then with respect to the
17 term laminate, would a POSITA also look to the
18 definition that appears in Column 12, lines 6 to
19 7 -- 6 to 8?

20 A I believe so.

21 Q And if we take a look at Column 6, lines 36
22 to 37, it states, The loading of the laminate is not

1 more than 40 grams per meter squared.

2 Do you see that?

3 A I do see that.

4 Q Do you know what laminate is being referred
5 to there?

6 A It appears as though they may be using a
7 different -- it appears that they are using a
8 laminate to mean the combination of the tie layer
9 and the contact layer.

10 Q That was my understanding as well.

11 Is that consistent with the definition that
12 we just went through for laminate in Column 12?

13 A No.

14 Q If you look at the '624 -- well, what is the
15 plain and ordinary meaning that you applied to the
16 term tie layer as that term is used in the '624
17 patent? It's helpful -- I found it helpful to look
18 at Column 4, lines 34 to 37.

19 A Thank you.

20 Q 35 to 37.

21 A Yes, I agree.

22 Q Well, so, I mean, that's not an express

1 definition there, so I want to know -- I mean, to me
2 it seems the plain and ordinary meaning would be a
3 tie layer is something that provides sufficient
4 adhesion between the base layer and the coextrusion
5 layer.

6 Do you agree with that definition of plain
7 and ordinary meaning?

8 A That's what it appears.

9 Q So the purpose of the claimed tie layer is
10 to provide sufficient adhesion between the base
11 layer and the contact layer, correct -- sorry, the
12 base layer -- let me say that again.

13 So the purpose of the tie layer is to
14 provide sufficient adhesion between the base layer
15 and the coextrusion layer, correct?

16 A Yeah, I think the tie layer would give
17 sufficient adhesion between the base layer and the
18 contact layer.

19 Q Okay.

20 A Yeah.

21 Q And just to round some things out, we talked
22 a little bit about polyethylene.

1 That's considered a broad class of polymer,
2 correct?

3 A What do you mean by broad?

4 Q There are many different types of
5 polyethylene, correct?

6 A There are many different kinds.

7 Q And polyethylene is a type of polyolefin,
8 correct?

9 A Polyethylene is within the polyolefin
10 family.

11 Q And then we might have talked about this
12 before, but just to get some terms.

13 So low density polyethylene is a type of
14 polyethylene, correct?

15 A That is correct.

16 Q And then high density polyethylene would be
17 a type of polyethylene, correct?

18 A That is correct.

19 Q And then linear low density polyethylene
20 would be yet another type of polyethylene, correct?

21 A That is correct.

22 Q And then what is the plain and ordinary

1 meaning that you applied to the term contact layer
2 as that's used in the claims of the '624 patent?

3 Let me ask it this way.

4 Is the plain and ordinary meaning of contact
5 layer as used in the claims of the '624 patent a
6 layer that contacts an aggressive substance?

7 A I believe so.

8 Q And what's the purpose of the claimed
9 contact layer of the '624 patent?

10 A Do you mean the chemical families?

11 Q Well, what's the purpose of it, right? I
12 would say it's to keep the aggressive chemical from
13 migrating through the packaging.

14 Is that the purpose of the contact layer?

15 A The purpose of the contact layer is to
16 not -- I mean, the contact layer is -- okay. The
17 contact layer is the layer that touches the drug or
18 the chemical.

19 And so a goal would be to have -- to
20 minimize the amount of drug that absorbs into that
21 layer.

22 Q Okay.

1 A That would be a good thing.

2 Q Are there any other goals or purposes, even
3 if secondary, of the contact layer, as that term is
4 used in the '624 patent?

5 A So on Column 4, 64, Contact layer must be
6 chemically resistant to the aggressive substance and
7 the excipient if present ultimately to be packed.
8 Further, it must show an extreme low absorption of
9 the aggressive substances migrating through the film
10 or laminate.

11 Q Okay.

12 A The degree of absorption for a given
13 substance is typically dictated by the manufacturer
14 of the substance.

15 So I would think a second -- I mean, I would
16 think a secondary requirement would be it be robust.

17 Q And I'm going to ask what robust means to
18 you. And I'm asking because we have had some very
19 expensive arguments in other cases about what the
20 word robust means.

21 A Really?

22 Q So what does that mean to you?

1 A It means that it is sufficiently -- of a
2 sufficient mechanical integrity.

3 Q Is there any other purpose or goal of the
4 contact layer, as that term is used in the '624
5 patent?

6 A Possibly.

7 Q And I would take you there if I thought
8 there was. But you're the expert here, and I'm not
9 sure what all a contact layer does.

10 A Okay. I'll keep looking. I found
11 robustness.

12 Q Oh, good.

13 A I mean, one, you know, obvious requirement
14 would be needs to be a thermoplastic that can go
15 through a coextrusion process.

16 Q I'll look during the break and take you
17 anywhere else.

18 Just generally, is there any other purpose
19 that you're aware of for a contact layer, other than
20 what we talked about, which I think was reducing,
21 minimizing migration of a substance and also
22 robustness, so it needs to -- I understand that to

1 mean, you know, not break down?

2 A Yeah.

3 Q Is there anything else you can think of?

4 A The thermoplastic.

5 Q And the thermoplastic.

6 Anything else?

7 A I mean, another obvious one is it needs to
8 be obtainable at a reasonable price, hence, the
9 desire to have an alternative to Barex.

10 Q Barex is -- my understanding is it's
11 relatively expensive?

12 A And hard to get.

13 Q Why is it hard to get?

14 A Its manufacturing has been limited.

15 Q Is it currently being manufactured?

16 A I don't know.

17 Q All right. We're almost to lunch, and I
18 think this one will be easier because we can look
19 somewhere for base layer.

20 So if you'll go with me to Column 4 starting
21 with line 20, and I'll read it.

22 According to the disclosure, the base layer

1 of the film is selected to provide a number of
2 properties to the film and a laminate and packaging
3 comprising the film. The base layer may give
4 desired barrier and support properties to the final
5 laminate. Furthermore, the base layer may in one
6 embodiment be a gas and water impermeable base
7 layer, more preferably a water and/or oxygen
8 resistant base layer.

9 Do you see that?

10 A Yes.

11 Q So do you agree with me that one purpose of
12 the base layer, as described in the '624 patent, is
13 that it gives desired barrier properties to the
14 final laminate?

15 A Yes.

16 Q Would you agree with me that one purpose of
17 the base layer of the '624 patent is to give desired
18 support properties to the final laminate?

19 A Yes.

20 Q And this is related to the barrier
21 properties.

22 But would you agree with me that one purpose

1 of the base layer is to be a gas impermeable layer?

2 A That would be desired too, yeah.

3 Q And would you agree with me that one purpose
4 of the base layer would be to be a water impermeable
5 base layer?

6 A That would also be desired.

7 Q And then just generally, are there any other
8 purposes for the base layer that you can think of
9 sitting here today?

10 A The one that's next is when the contact
11 layer is hygroscopic, it's made of metal foil,
12 preferably aluminum.

13 Q That would confer water resistance, correct?

14 A Correct.

15 Q Anything else you can think of? For
16 example, down below, mentions that it can have good
17 dead-fold properties.

18 Do you see that?

19 A Yes.

20 Q What's a dead-fold property?

21 A I believe that's -- it does not unfold once
22 it's folded.

1 Q And another purpose of the barrier layer
2 specific to aluminum is that it reflects radiant
3 heat?

4 A That's what it says.

5 Q And then another purpose at least with
6 respect to an aluminum embodiment is it gives a
7 decorative appeal to laminates and packages; is that
8 correct?

9 A That is correct.

10 MR. OGDEN: Let's take lunch.

11 (Recess: 12:50 p.m. to 1:32 p.m.)

12 MR. OGDEN: This will be Exhibit 1026.

13 (Marked Exhibit 1026.)

14 BY MR. OGDEN:

15 Q I'll represent to you that this is a
16 reproduction of Figure 2 from the '624 patent.

17 Are you familiar with Figure 2 from the '624
18 patent? And in the specification, if you look at
19 Column 13, that's where it really gets into the
20 description.

21 Are you ready?

22 A Yes.

1 Q Are you familiar with Figure 2 of the '624
2 patent?

3 A Yes.

4 Q And in Column 12, it states, Figure 2 is a
5 cross-section of another embodiment of a
6 chemical-resistant film according to the disclosure.

7 Do you see that?

8 A You said Column 12?

9 Q Column 11 about line 39, 40.

10 A Column 11. Okay.

11 Q I just want to know if you see there the
12 '624 patent is describing Figure 2 as a
13 cross-section of another embodiment of a
14 chemical-resistant film according to the disclosure.

15 A I do see that.

16 Q And you may want to reference where you were
17 in Column 13, but I just want to confirm that
18 according to Column 13 in Figure 2, that the top
19 layer identified as Number 2 is the base layer.

20 Do you agree with that?

21 A Yes.

22 Q And then the layer identified as 3A is a

1 first tie layer, correct?

2 A Yes.

3 Q And then Layer 3B is a second tie layer,
4 correct?

5 A Yes.

6 Q And then the bottom layer identified as
7 Layer 4 is the contact layer, correct?

8 A Yes.

9 Q And then do you understand that in Figure 2
10 that Label 5 on the right-hand side of the diagram
11 encompasses the bottom three layers together, which
12 is Layers 3A, 3B, and 4?

13 A Yes.

14 Q And do you agree that those bottom three
15 layers together are referred to as the coextrusion
16 layer?

17 A Yes.

18 MR. OGDEN: This is going to be
19 Exhibit 1027.

20 (Marked Exhibit 1027.)

21 BY MR. OGDEN:

22 Q And this is a sheet of paper where I put a

1 diagram of a four-layer film, and I filled in the
2 components for each layer.

3 Do you see that?

4 A I see a -- I see a box with words in it.

5 Is that what you mean?

6 Q So we just looked at Figure 2, right?

7 A 1026, yeah.

8 Q It's got a box with four layers.

9 Do you see that?

10 A Yes.

11 Q Now I've drawn my own box with four layers
12 that represents a film, and that's Exhibit 1027.

13 And I've gone ahead and put in the different
14 polymers and/or foil for each layer.

15 Do you see that on Exhibit 1027? I want to
16 look at Exhibit 1027. I'm going to ask you
17 questions about it.

18 So do you see the top layer is aluminum
19 foil? Doctor, just in the schematic on
20 Exhibit 1027, not in the patent.

21 A Not in the patent?

22 Q Yeah, just looking at the exhibit.

1 A Got it.

2 Q Do you see we have labeled a top layer
3 that's aluminum foil?

4 A I see that.

5 Q And then a layer below that is EAA?

6 A I see that.

7 Q And a layer below that is polyethylene?

8 A I see that.

9 Q And a layer below that is COC.
10 Do you see that?

11 A I see that.

12 Q If you were given this schematic that's in
13 Exhibit 1027, in your opinion, what would a POSITA
14 have considered the primary purpose of the aluminum
15 foil layer to be?

16 MR. GETZOFF: Objection to form.

17 THE WITNESS: The question is if I
18 just -- a POSITA for the '624 patent?

19 BY MR. OGDEN:

20 Q Every question that I use POSITA for, we're
21 going with the '624 patent definition.

22 A Got it.

1 Q I just want to know, if they were just
2 looking at Exhibit 1027 and understood this to be a
3 schematic of a four-layer film, what they would
4 think the primary purpose of the aluminum foil layer
5 is.

6 MR. GETZOFF: Can I inquire? Do you
7 mean in the context of the '624 patent or just this
8 piece of paper?

9 MR. OGDEN: Just using the definition
10 of a POSITA that he's given for the '624 patent, if
11 a POSITA was provided this piece of paper --

12 MR. GETZOFF: And nothing else?

13 MR. OGDEN: -- and nothing else, with
14 the knowledge that they would have, what would they
15 believe the primary purpose of the aluminum foil
16 layer would be.

17 THE WITNESS: So this is not Figure 2?
18 BY MR. OGDEN:

19 Q It's not Figure 2. It's just, I've come up
20 to a POSITA under your definition for the '624
21 patent and said, Here's a schematic of a four-layer
22 film; what's the primary purpose of this aluminum

1 foil?

2 A And no reference to what it's used for?

3 Q Right.

4 If they just had this, would they know what
5 the primary purpose of the aluminum foil was?

6 A Just any POSITA?

7 Q We're always applying your definition.

8 A Yeah.

9 Q Okay?

10 A Yeah.

11 Q So I don't remember all of it, but I think
12 it was like a degree in a relevant area, two to
13 three years of experience, no less than a year of
14 experience with coextrusion. We're always applying
15 that definition every time I say POSITA.

16 If you just handed them this schematic,
17 would they be able to tell you what the primary --

18 MR. GETZOFF: And nothing else?

19 MR. OGDEN: And nothing else.

20 BY MR. OGDEN:

21 Q With the knowledge that's in their head,
22 would they be able to tell you what the primary

1 purpose of the aluminum foil is?

2 A I don't think they could definitely tell you
3 what it was.

4 Q Could they indefinitely tell me what the
5 primary purpose of the aluminum foil is?

6 A With reference to, say, something like
7 Figure 2 or, you know, a connection to the purpose
8 of it.

9 Q With reference to, then, Figure 2 of the
10 '624 patent, what would they believe the primary
11 purpose of the aluminum foil to be?

12 MR. GETZOFF: So to be clear, you've
13 now given this hypothetical POSITA the new exhibit
14 and the patent?

15 MR. OGDEN: Sure.

16 THE WITNESS: If it's Figure 2, then it
17 is a base layer.

18 BY MR. OGDEN:

19 Q With reference to Riis, if they were holding
20 this piece of paper, what would they believe the
21 primary purpose of the aluminum foil is?

22 So how about take a look at paragraph 63 of

1 Riis.

2 A 63?

3 Q Would a POSITA looking at 1027 and Riis
4 consider the aluminum foil layer to be an oxygen
5 barrier layer?

6 MR. GETZOFF: Objection to form.

7 THE WITNESS: Possibly.

8 BY MR. OGDEN:

9 Q Would they consider it to be some other type
10 of layer?

11 A I'd have to go through other things besides
12 63.

13 Q Go through it.

14 A Okay.

15 Q I'm going to have this question for every
16 layer. So if you want to look at the others while
17 you're looking, that's fine.

18 Sir, are you unable to determine whether a
19 POSITA looking at Riis would be able to identify the
20 primary function of the aluminum foil layer in
21 Exhibit 1027?

22 MR. GETZOFF: Well, to be fair, he's

1 looking.

2 MR. OGDEN: Yeah, I know. I've been
3 waiting for, like, seven minutes.

4 BY MR. OGDEN:

5 Q I'm kind of curious since this is the
6 primary reference and the biggest issue in the case,
7 does this reference whether you're unable to do that
8 or not? Because I don't want to spend 30 minutes if
9 your answer is going to be I don't know.

10 MR. GETZOFF: To be clear, if you're
11 going to make gratuitous comments, so am I. You
12 asked him to search for a needle in the haystack in
13 a long reference. If you want to withdraw the
14 question and move on, that's perfectly fine, but
15 that's a difficult, time-consuming thing that you
16 asked this witness to do.

17 MR. OGDEN: I 100 percent disagree if
18 he had been prepared to be here. But at your
19 request, I'll withdraw the question.

20 BY MR. OGDEN:

21 Q Please look at paragraph 62.

22 A Okay.

1 Q Here does Riis say that aluminum foil
2 functions as a barrier layer?

3 A It says it can function as an oxygen barrier
4 layer, along with EVOH, polyvinylidene chloride,
5 polyamide, polyester, polyalkylene carbonate,
6 polyacrylonitrile, and a metallized film such as
7 aluminum vapor deposited on a polyolefin.

8 Q So do you agree that a POSITA in view of
9 Riis would look at Exhibit 1027 and agree that the
10 primary function of the aluminum foil layer is an
11 oxygen barrier layer?

12 A Possibly.

13 Q That's not an answer.

14 MR. GETZOFF: It's an answer. You just
15 don't like the answer.

16 THE WITNESS: Do you want me to
17 conclude that that's the only thing it can be?

18 BY MR. OGDEN:

19 Q Well, in view of Riis, can the aluminum foil
20 layer be a base layer?

21 A Let me look.

22 Q I'll represent to you that the term base

1 layer does not appear anywhere in Riis.

2 A So it was a trick question?

3 Q No, it's not a trick question.

4 I want to know if one of skill in the art,
5 in view of Riis, would understand the aluminum foil
6 layer to be a base layer.

7 MR. GETZOFF: Objection to form.

8 THE WITNESS: And you're telling me
9 that base layer doesn't --

10 BY MR. OGDEN:

11 Q Yes.

12 You asked me if it was a trick question, and
13 I did respond, although I don't like to engage in
14 too much colloquy.

15 Here is the thing, a little while ago, you
16 told me that if you're looking at the '624 patent,
17 that a POSITA would consider this aluminum foil
18 layer to be a base layer.

19 So I want to know if, when you look at it in
20 view of Riis, does it now become an oxygen barrier
21 layer?

22 A I don't know. I mean, you just gave me this

1 piece of paper.

2 Q Right.

3 So is your determination as to what a POSITA
4 would understand an aluminum foil layer to be solely
5 dependent on the words that are used in a particular
6 reference to label that layer?

7 A For the definitions in that patent,
8 absolutely, yes.

9 Q So if Riis labels the aluminum layer an
10 oxygen barrier layer, then that is the primary
11 function of Riis' aluminum foil layer?

12 A No.

13 Q Why not?

14 A Because it can also be a moisture barrier.

15 Q So it can have two functions?

16 A (Nonverbal response.)

17 Q So which function --

18 MR. GETZOFF: Sorry, he didn't answer.

19 MR. OGDEN: Sorry.

20 MR. GETZOFF: You have to verbalize.

21 MR. OGDEN: Sorry, I saw him nod.

22

1 BY MR. OGDEN:

2 Q Let me ask it, and you can answer it however
3 you want.

4 So a POSITA viewing Riis would think that an
5 aluminum foil layer could provide one function of
6 being an oxygen barrier layer and another function
7 of being a moisture barrier layer; is that correct?

8 A Possibly.

9 Q And in that situation, which is the primary
10 function, being a moisture barrier or being an
11 oxygen barrier?

12 MR. GETZOFF: Objection to form.

13 THE WITNESS: It's not clear to me
14 which is more important.

15 BY MR. OGDEN:

16 Q And then with respect to the EAA layer, what
17 would a POSITA believe is the primary purpose of the
18 EAA layer of Exhibit 1027 in view of Riis?

19 And I think you can compare paragraph 162
20 with paragraph 174 to help you with that.

21 MR. GETZOFF: Of his report?

22 MR. OGDEN: Sorry, no, of Riis.

1 MR. GETZOFF: 162?

2 MR. OGDEN: 162.

3 MR. GETZOFF: Thank you.

4 MR. OGDEN: And 174.

5 THE WITNESS: So you said 162 and 164?

6 BY MR. OGDEN:

7 Q Yeah. So Example 5 at 174.

8 A 174?

9 Q That shows you, I'll read it, The sealant
10 film was a three-layer coextrusion of EAA, LDPE, and
11 ethylene norbornene copolymer (COC), which was
12 extrusion coated onto the aluminum foil surface.
13 That's described in the EAA layer.

14 So what I want to know is -- so all the
15 examples are described from 159 through 174. So
16 what I want to know is, a POSITA looking at the
17 disclosure of Riis, what would they consider the
18 primary purpose of the EAA layer there to be?

19 A So you want me to eliminate all of the
20 material that's above the aluminum foil?

21 Q Do you see that this corresponds to what's
22 described -- sorry, I didn't mean to talk over you.

1 A The OPET, the primer, the LDPE, and the EAA.

2 Q Does that matter to your opinion whether
3 that's laminated together or not?

4 A I want to know what -- you want me to tell
5 you the purpose of these things, so I want to know
6 exactly what example it's from.

7 Q Let's start with your first -- what you just
8 said. Imagine this is the full film structure of
9 Example 5 where it says, There's a base film
10 produced in the same manner as for comparative
11 Example 2 and then a sealant film that is a
12 three-layer coextrusion of EAA, LDPE, and COC
13 extrusion coated on the aluminum foil surface of the
14 base film.

15 A Where is that?

16 Q I'm reading right out of paragraph 174.

17 A 174.

18 Q So if you take a look at the end of
19 paragraph 168, it tells you the structure of a base
20 layer. So the base layer is .92-mil
21 OPET/primer/0.42-mil LDPE/.1-mil EAA/.35-mil foil.

22 A So this next EAA is the .17-mil EAA?

1 Q So if you look over at paragraph 174, they
2 say they take that base layer and then -- that it's
3 the same as the one from comparative Example 2, and
4 then they coextrude a three-layer coextrusion of
5 EAA, LDPE, and COC onto that aluminum, and then they
6 tell you the resulting eight-layer film.

7 A So this is the .17-mil EAA?

8 Q That's correct.

9 What would a POSITA have understood the
10 primary purpose of that to be?

11 A So I believe that Riis defines that as the
12 tie layer.

13 Q Now, if you just coextruded the EAA,
14 polyethylene, and COC directly onto aluminum foil
15 without the other layers being there, would the
16 primary purpose still be a tie layer?

17 A Again, you're defining it again by Riis.

18 Q Sure, yes.

19 A The .17-mil EAA.

20 Q But now it's just coextruded directly on
21 aluminum foil, and that's the entire -- it's four
22 layers.

1 Is the EAA still functioning as a tie layer
2 there, primary purpose?

3 A I would say possibly.

4 Q Okay.

5 A It's not something that was done in Riis.

6 Q Right.

7 But I'm asking the hypothetical -- so let me
8 ask it this way.

9 If you eliminate those other four layers,
10 which are the OPET, the primer, the LDPE, and here
11 they have written EAN, and I think they meant EAA,
12 does that change the primary purpose of the EAA
13 layer?

14 A What did you just read?

15 Q Take a look with me at the end of
16 paragraph 174.

17 A 174, yeah.

18 Q Do you see it's describing an eight-layer
19 film? And on one side of the aluminum foil, there's
20 OPET, primer, LDPE, and it says EAN, but I think
21 that might be a typo.

22 Then on the other side of the foil, there's

1 EAA, LDPE, and COC.

2 Do you see that?

3 A I see that.

4 Q So if we eliminate -- if we only retain the
5 aluminum foil, the .17-mil EAA, the .65-mil LDPE,
6 and the .43-mil COC, does the EAA layer still have a
7 primary purpose as a tie layer?

8 A I'm not sure. I'd have to see the context
9 of -- like it would if you didn't eliminate that.

10 Q So you can only answer the primary purpose
11 when you know the full eight layers of the film?

12 A I can only answer with respect to Riis'
13 intended use.

14 Q So the entire definition of primary purpose
15 depends on the person who made the film's intention
16 for that layer? Is that what you're saying?

17 MR. GETZOFF: Objection to form.

18 THE WITNESS: Not the person who made
19 the film but the inventor who designed the film.

20 MR. OGDEN: Do you have the next one?

21 This is going to be Exhibit 1028.

22 (Marked Exhibit 1028.)

1 BY MR. OGDEN:

2 Q Now, let's take a look at Claim 1 of the
3 '624 patent.

4 And do you see here in what I've handed you
5 that's Exhibit 1028, we've got a layer that
6 comprises aluminum foil in what I handed you?

7 A Are you talking about Claim 1?

8 Q This figure that I just handed you, it says
9 Exhibit 1028 on it.

10 A Yes.

11 Q Do you see that there's a layer there that's
12 labeled Aluminum Foil?

13 A I see aluminum foil.

14 Q And then I want you to assume that in
15 Exhibit 1028, the EAA layer, the polyethylene layer,
16 and the COC layer were coextruded onto that aluminum
17 foil in Exhibit 1028.

18 A (Nonverbal response.)

19 Q Now, in view of the '624 patent, what would
20 a POSITA -- first, let me start with this.

21 You agree when we add together the loadings
22 listed here for the EAA and the polyethylene layer

1 that adds to 19 grams per meter squared in
2 Exhibit 1028, correct? Do you agree that 15 grams
3 per meter squared plus 4 grams per meter squared is
4 19 grams per meter squared?

5 A Yeah, I agree with that.

6 Q And you agree that 19 grams per meter
7 squared falls within the range of 7 to 20 grams per
8 meter squared?

9 A Yeah.

10 Q So just without labeling the layers, if we
11 assume that here EAA and polyethylene are
12 functioning as tie layers, that meets the claimed
13 range of the tie layer of 7 to 20 grams per meter
14 squared, right?

15 MR. GETZOFF: Objection to form.

16 THE WITNESS: So this is for '624?

17 BY MR. OGDEN:

18 Q Yes.

19 A Claim 1?

20 Q Yes.

21 A So the question is whether 19 is less than
22 20?

1 Q So I'm saying, if you assume that the EAA
2 layer and the polyethylene layer are both -- both
3 have a primary purpose of a tie layer, does that
4 meet the limitation of Claim 1 wherein the tie layer
5 comprises one or more layers and wherein the tie
6 layer or the one or more layers of the tie layer has
7 a loading range in the range of 7 to 20 grams per
8 meter squared?

9 A I mean, that's a hypothetical.

10 Q That's what you're here to answer.

11 A Yeah, yeah.

12 Q So hypothetically --

13 A So I'm not sure whether this would be a tie
14 layer.

15 Q What would you need to know to determine
16 whether it's a tie layer?

17 A Some patent that has the, you know,
18 specification.

19 Q So would it depend on whether we're looking
20 at Riis or whether we're looking at the '624 patent?

21 A So in Riis, for sure, the .65 of the PE is
22 not a tie layer.

1 Q But it could be if we're looking at it from
2 the perspective of the '624 patent?

3 A I don't know.

4 Q You don't know? Okay.

5 In Claim 1, would you consider a tie layer
6 that comprises one or more layers and wherein the
7 tie layer or the one or more layers of the tie layer
8 has a loading range -- sorry, has a loading in the
9 range of 7 to 20 grams per meter squared to be thin?

10 MR. GETZOFF: Objection, form.

11 THE WITNESS: Possibly.

12 BY MR. OGDEN:

13 Q What would you need to know to make that
14 determination -- sorry, let me withdraw that.

15 What would a POSITA need to know to make
16 that determination?

17 A Just what it's relative to.

18 Q So would they need to know -- when you say
19 relative to, would they need to know the overall
20 thickness of the final film product?

21 A Possibly.

22 Q And why would they possibly need to know the

1 overall thickness of the final film product to
2 determine whether a tie layer of 7 to 20 grams per
3 meter squared is thin?

4 A I mean, thin is just relative. You know,
5 it's a relative term.

6 Q I agree.

7 So if you need to make a determination if
8 something is thin, you've got to know relative to
9 what; is that right?

10 A Yeah.

11 Q And in this case, what would you need to
12 know to determine if the tie layer of Claim 1 is
13 thin?

14 A So one thing you need to know is the
15 density.

16 Q And why would you need to know the density?

17 A Because the thickness would depend on
18 density.

19 Q And the '624 patent doesn't indicate the
20 density of any of the molecules or polymers it
21 suggests using in the tie layer, does it?

22 A Let me check.

1 Q I don't believe it appears in the spec, but
2 you're welcome to check.

3 A I'll check.

4 MR. OGDEN: For time's sake, I'm --
5 withdraw the question.

6 BY MR. OGDEN:

7 Q So let's assume for the purposes of this
8 question that the '624 patent does not disclose the
9 density of any of the polymers that it suggests
10 using in the tie layer; however, it does disclose
11 the different types of polymers, doesn't it, like
12 EAA and LDPE?

13 MR. OGDEN: I'll withdraw the question.

14 BY MR. OGDEN:

15 Q Does the '624 patent disclose that EAA can
16 be used as a tie layer?

17 A Let me check.

18 Q Sir, you can look at Claim 12.

19 And you'd agree with me that Claim 12
20 actually requires that one of the tie layers be EAA,
21 correct?

22 A Claim 12 says the acrylic acid layer is

1 ethylene acrylic acid.

2 Q And that's a tie layer, right?

3 Take a look at Claim 11. It says, The
4 method according to Claim 1 wherein the one or more
5 layers of the tie layer comprises an acrylic acid
6 layer and a polyethylene layer, right?

7 So do you understand that Claim 11 states
8 that one or more layers of the tie layer comprises
9 an acrylic acid layer?

10 A Yes.

11 Q And then if we look at Claim 12, do you see
12 there it depends from Claim 11?

13 A Yes.

14 Q Do you understand that means it includes all
15 the limitations of Claim 11?

16 A Yeah, it appears that way.

17 Q And so do you understand that Claim 12 is
18 reciting that the acrylic acid layer recited in
19 Claim 11 must comprise an ethylene acrylic acid?

20 A For Claim 12, that's what it says.

21 Q So would you agree with me that the Claim 12
22 requires that EAA be part of the tie layer?

1 A It says that EAA can be a tie layer. I
2 don't know, what do you mean by requires it to be?

3 Q Do you understand what a claim limitation
4 is?

5 A Yeah.

6 Q What is a claim limitation?

7 A So it's what is written in the claim.

8 That's --

9 Q Right.

10 And if there's a claim limitation, then to
11 meet that claim, it must be there, right?

12 A Right.

13 Q And this one says, if you read through the
14 dependencies, that the tie layer must comprise an
15 EAA layer.

16 Do you see that?

17 A It says -- you're saying the acrylic acid
18 layer comprises ethylene acrylic acid?

19 Q Yes.

20 A So it means it could be more than ethylene
21 acrylic acid, right.

22 Q Sure.

1 But you would agree with me that one of the
2 things that has to be in the tie layer of Claim 12
3 is EAA, right?

4 A One of the components.

5 Q That's all I -- yes.

6 A One of the components.

7 Q Yes.

8 A Yeah.

9 Q And since no densities are disclosed in the
10 '624 patent, wouldn't a skilled artisan need to go
11 look elsewhere to determine the density of EAA in
12 order to know the thickness of the tie layer?

13 A That would be one way to do it, yeah.

14 Q What would be another way?

15 A To have it listed in the specification.

16 Q Is there any other way?

17 A To have the inventor tell you.

18 Q That would be another way.

19 Let's take a look in your declaration at
20 paragraph 56, and then we'll take a break.

21 And starting at the bottom of page 19,
22 there's a sentence that begins, The '624 patent also

1 discloses that, and then it quotes, it has
2 surprisingly been found that when coextruding the
3 tie layer and the contact layer, the respective
4 layers can be thinner while maintaining the overall
5 mechanical and chemical robustness of the final film
6 and laminates made with the film, closed quotes.

7 And my question is, thinner relative to
8 what?

9 A I believe what it's probably saying is
10 thinner compared to other chemical-resistant films
11 or other -- no, not -- let me take that back.

12 Thinner than other coextrusions of COC.

13 Q So when they stated, It has surprisingly
14 been found that when coextruding the tie layer and
15 the contact layer, the respective layers can be
16 thinner, it's your opinion that they meant thinner
17 relative to other prior art coextrusions with COCs?

18 A Or maybe thinner than -- than they had been
19 able to do in the past.

20 Q So you don't know which it is?

21 A I don't know which it is.

22 Q Well, if you look at paragraph 57, you wrote

1 that you agreed with the assertion that the '624
2 patent's success in providing a coextrusion layer
3 consisting of a tie layer and a contact layer having
4 the low loadings (and thus thin layers) as well as a
5 contact layer that is both aesthetically appealing
6 and has robust barrier properties disclosed in the
7 '624 patent is very surprising.

8 Do you see that?

9 A Yes.

10 Q So if you don't know what they meant by
11 thinner, how can you agree with the statement?

12 A Well, I was referring to Tatarka.

13 Q What does Tatarka say about the thickness or
14 thinness of COCs?

15 A Do you have --

16 Q Let me ask this, the citation you put to
17 Tatarka here says nothing about the thickness or
18 thinness, does it?

19 A I'd have to look at Tatarka.

20 Q The citation that you wrote here, you quoted
21 Tatarka, says nothing about thickness or thinness.

22 A The thickness is addressed in 65.

1 Q Paragraph 65 of your declaration?

2 A Yes.

3 Q I see that.

4 But that goes back to my question is, when
5 they said it was surprising and you agreed that it
6 was thinner, what was it thinner relative to?

7 A So, again, what I would -- my opinion would
8 be that they were referring to what they and other
9 people could achieve.

10 Q So it's just thinner relative to the prior
11 art?

12 A Possibly.

13 Q Is it thinner relative to anything else?

14 A I don't know. It says thinner.

15 Q I mean, you agreed with the statement.

16 A Yeah.

17 Q But you don't know what you agreed with?

18 A No. It says thinner, so that's why I wrote
19 the statement that thinner would then make brittle
20 material more ductile.

21 Q That still doesn't answer, thinner relative
22 to what? You agreed with that statement that it was

1 thinner. You've been using that phrase throughout
2 your declaration and throughout our discussion
3 today.

4 So what is this surprising result thinner
5 than? And I don't understand the answer right now,
6 and maybe you've given it and I'm just not
7 understanding.

8 So please clarify, what is it thinner than?

9 A Thinner than what they were able to achieve
10 prior to this invention.

11 Q That I can follow. Thank you very much for
12 that answer. And we're going to take a break.

13 Let me just ask this, so with respect to the
14 film of Claim 1, is a tie layer of 7 to 20 grams per
15 meter squared thin?

16 A I'm not sure.

17 Q Is that thinner relative to prior art films
18 that use COCs?

19 A Okay. So what -- which one are you
20 referring to?

21 Q Take a look at Claim 1.

22 A Claim 1, okay.

1 Q And Claim 1 recites a tie layer that's 7 to
2 20 grams per meter squared, correct?

3 A Yes.

4 Q So in the film of Claim 1, is a loading of 7
5 to 20 grams per meter squared thinner than what was
6 known in the prior art?

7 A It appears that way.

8 MR. OGDEN: Let's take a break.

9 (Recess: 2:50 p.m. to 3:01 p.m.)

10 BY MR. OGDEN:

11 Q Let's pick up Riis, which is Exhibit 1004,
12 and go to paragraph 135.

13 So the last sentence of paragraph 135 of
14 Riis reads, In some embodiments, a polyolefin bulk
15 layer can serve as an adhesive or tie layer.

16 Do you see that?

17 A Yes.

18 Q And do you agree that a POSITA would have
19 understood from Riis' disclosure that a polyolefin
20 bulk layer can serve as an adhesive or tie layer?

21 A My opinion of that is that it would be -- a
22 polyolefin -- within a polyolefin family, which

1 would be the material that had more than 50 percent
2 polyethylene, and the other would be like acrylic
3 acid or maleic anhydride, which would be a
4 polyolefin tie layer.

5 So within the family of polyolefins, there
6 are members that have multifunctional -- either
7 multifunctional in that they have the polyethylene
8 nonpolar, but they also have polar, a polar part and
9 a nonpolar part, so they could be a multifunctional
10 tie layer. And it would be within the family of
11 polyolefin.

12 And I think it's also described in Riis that
13 the polyolefin family includes them.

14 **Q Where in Riis does it say that for a**
15 **polyolefin bulk layer to serve as an adhesive or tie**
16 **layer it has to be this mixture of a polyethylene**
17 **with some other polymer?**

18 **A So in 69.**

19 **Q That's paragraph 69?**

20 **A Paragraph 69.**

21 **Q Got you.**

22 **A It says, Ethylene copolymers having a**

1 majority amount by weight of ethylene polymerized
2 with a lesser amount of a comonomer such as vinyl
3 acetate and other polymer resins falling in the
4 olefin family classification.

5 In the tie layer section, it says, A
6 multifunctional -- so that is a polyolefin that's
7 multifunctional.

8 And it says in the tie layer section, A
9 multifunctional layer is preferably formulated to
10 aid in the adherence of one layer to another layer
11 without the need of using separate adhesives by
12 virtue of the compatibility of the materials in that
13 layer to the first and second layers.

14 **Q When you read the lists at the end of**
15 **paragraph 69, is it your opinion that when it**
16 **describes resins falling in the olefin family**
17 **classification, LDPE, HDPE, LLDPE, that all of those**
18 **are being referred to as mixtures with some other**
19 **molecule?**

20 **A No, those are not multifunctional.**

21 And at the bottom of 71, it says,
22 Polyolefins such as EVA may also -- may also --

1 polyolefins such as ethylene copolymers such as EVA.

2 **Q It says polyethylenes or ethylene**
3 **copolymers, correct?**

4 A Right. Polyethylene or ethylene copolymers.
5 So a polyethylene copolymer would be EVA.

6 **Q Is EVA an ethylene copolymer?**

7 A It could be called an ethylene copolymer
8 too. Typically, it is a polyethylene copolymer.

9 **Q Are all tie layers multifunctional?**

10 A I believe in Riis they are.

11 **Q Are all the tie layers in the '624 patent**
12 **multifunctional?**

13 A In the '624?

14 **Q Yes.**

15 A I'm not sure.

16 MR. OGDEN: I'll withdraw the question.

17 BY MR. OGDEN:

18 **Q Let me ask you this, are COCs**
19 **multifunctional?**

20 A I don't believe so.

21 **Q Are polyamides multifunctional?**

22 A You're talking about -- well, COCs are

1 copolymers, so, I mean, there might be some
2 multifunctionality with COCs.

3 Q What about polyamides?

4 A Polyamides?

5 I mean, perhaps with the aromatic polyamides
6 like Nomex and Kevlar.

7 Q And what about ethylene vinyl alcohol, is
8 that multifunctional?

9 A Yes.

10 Q Do you agree with the statement that a
11 reference may be relied upon for all that it
12 discloses, including uses beyond its primary
13 purpose?

14 MR. GETZOFF: Objection to form.

15 THE WITNESS: Can you repeat that? A
16 reference?

17 BY MR. OGDEN:

18 Q Yes.

19 Do you agree with the statement that a
20 reference may be relied upon for all that it
21 discloses, including uses beyond its primary
22 purpose?

1 MR. GETZOFF: Objection to form.

2 THE WITNESS: So a reference can be
3 relied upon for uses that it doesn't have?

4 BY MR. OGDEN:

5 Q That's a very specific question.

6 Do you agree that a reference may be relied
7 upon for all that it discloses, including uses
8 beyond its primary purpose?

9 MR. GETZOFF: Same objection.

10 THE WITNESS: I would have to say I
11 don't know.

12 BY MR. OGDEN:

13 Q Would it surprise you that you've written
14 that before in sworn testimony?

15 A It would surprise me.

16 Q COCs are nonpolar, correct?

17 A I don't know of all the copolymers of COCs.

18 Q Okay.

19 A I know the ones that are here, that are used
20 here, they are not multifunctional, but there may be
21 some --

22 Q So when you say here, the COCs of the '624

1 patent are not multifunctional?

2 A They're not multifunctional.

3 Q And do you equate multifunctional with
4 polarity in some way?

5 A With polarity, yes.

6 Q So if you're polar, you're multifunctional;
7 is that right?

8 A No.

9 Q So how does that relationship between
10 polarity and multifunctionality exist?

11 A So you have to have a combination of
12 polarity.

13 Q Okay.

14 A So it could be nonpolar with polar, ionic
15 with nonpolar, ionic with polar.

16 Q And this is like that -- oh, sorry, go
17 ahead.

18 A No, go ahead.

19 Q That is to say this is like when you
20 described, I think, surfactants, like them being
21 antipathic or something? Is it similar to that
22 idea?

1 A Similar.

2 Q I know it's not the same, but --

3 A Right.

4 Q So let me -- I want to ask about a series of
5 molecules first about whether they're polar and then
6 about whether they're multifunctional. So I
7 think -- let's make sure I'm characterizing this
8 correctly.

9 The COCs taught in the '624 patent are not
10 multifunctional?

11 A I don't believe so.

12 Q And the COCs taught in the '624 patent are
13 nonpolar, correct?

14 A I believe so.

15 Q And then LDPE is nonpolar, correct?

16 A I believe so.

17 Q And LDPE is not multifunctional, correct?

18 A I believe so.

19 Q And then EAA is polar, correct?

20 A Well, so EAA -- the ethylene part of EAA is
21 nonpolar; the AA part of EAA is polar.

22 Q Okay.

1 A So it would have the nonpolar and the polar
2 which would make it multifunctional.

3 Q Got it.

4 And then aluminum, is aluminum polar?

5 A So aluminum typically has aluminum oxide on
6 the surface, which makes it polar.

7 Q Now, is aluminum multifunctional?

8 A I don't know.

9 Q Now, does it make a difference if it's
10 aluminum foil?

11 A Make a difference for what?

12 Q Whether it's polar or not.

13 I don't know if making it into a foil...

14 A It might be that making it into a foil makes
15 it polar.

16 Q Is ethylene vinyl alcohol polar?

17 A So ethylene vinyl alcohol, the ethylene
18 portion of it would be nonpolar. The vinyl alcohol
19 part of it would be polar. So it would be
20 multifunctional.

21 Q Got it.

22 And then high density polyethylene is

1 nonpolar, correct?

2 A That is correct.

3 Q And high density polyethylene is not
4 multifunctional?

5 A That is correct.

6 Q Now, as of December 29, 2015, was LDPE a
7 known tie layer for ethylene vinyl alcohol and HDPE?

8 A I guess it would depend on the definition of
9 tie layer and the circumstances.

10 Q And I think you answered this before, but I
11 want to come back to it.

12 Do you agree that as of December 29, 2015, a
13 POSA would have understood that LDPE is a suitable
14 thermoplastic for a tie layer?

15 A Again, it would depend on the definition of
16 tie layer. It would not be a multifunctional tie
17 layer, so it wouldn't be suitable for Riis'
18 definition of it.

19 Q Would it be suitable for the '624 patent's
20 definition?

21 A Possibly.

22 Q Let's take a look at paragraph 56 of your

1 declaration. And in the first sentence there, it
2 says, With respect to a COC contact layer, the '624
3 patent discloses that COC has not previously been
4 recognized as being suitable for extrusion coating
5 and for the production of heat sealable laminates,
6 including from a visual point of view, and it is
7 very surprising that the inventors have succeeded in
8 providing a coextrusion layer comprising COC as a
9 contact layer for sealing aggressive substances.

10 Do you see that?

11 A I see that.

12 Q And do you agree that as of December 29,
13 2015, COC had not been recognized as being suitable
14 for extrusion coating and for the production of heat
15 sealable laminates?

16 A You're asking me whether I think -- I mean,
17 I wrote that it's disclosed from the '624 patent.

18 Q Yes.

19 A So you're asking me if that statement is
20 true?

21 Q Or if you agree with that statement, however
22 you want to answer it.

1 A I have no reason not to agree with it.

2 Q Now, if you take a look at your declaration
3 at paragraph 12, you have a list of references, and
4 you say, Below is a list of documents I have
5 reviewed and analyzed as part of conducting my
6 analysis and forming my opinions in this PGR
7 proceeding.

8 It's paragraph 12.

9 A Okay.

10 Q And then do you see on page 5 there that one
11 of those materials is Exhibit 1017, Topas Advanced
12 Polymers: Topas COC is Commercial Alternative to
13 Barex?

14 A I do see that.

15 Q I'm going to give you Exhibit 1017.

16 (Marked Exhibit 1017.)

17 BY MR. OGDEN:

18 Q And do you see that this is a press release
19 dated November 18, 2015?

20 A Yes, it appears that way.

21 Q And November 18, 2015, is before
22 December 29, 2015, correct?

1 A Yes, I believe so.

2 Q And so in this press release, before
3 December 29, 2015, Topas identifies COC as an
4 alternative to Barex in view of the discontinuance
5 of manufacturing by Ineos; is that correct?

6 A I'm not sure. Let me read it.

7 Q The first sentence should help with that.

8 A That's what it claims.

9 Q And then the second sentence of the press
10 release states that COC can be used in
11 pharmaceutical packaging that requires strong
12 chemical resistance, correct?

13 A Can you repeat that question?

14 Q Sure.

15 The second sentence of the press release
16 states that COC can be used in pharmaceutical
17 packaging that requires strong chemical resistance,
18 correct?

19 A It doesn't exactly say that.

20 Q Do you agree that it's saying here that COC
21 and Barex offer similar properties when it comes to
22 barrier permeation performance and strong chemical

1 resistance?

2 A Where? This is the second sentence?

3 Q The second sentence of -- well, yeah --

4 sorry, I went down too far. Let's read the second
5 sentence together.

6 Working closely with top packaging
7 suppliers, Topas has specified COC in a wide range
8 of pharmaceutical packages such as medicinal pouches
9 and patches and other applications that require
10 strong chemical resistance.

11 Do you see that?

12 A I see that.

13 Q Do you have any reason to disagree with this
14 statement from Topas?

15 A All it's saying is they specify COC for them
16 to try it out. It doesn't say that it's been
17 successful.

18 Q Do you see in the next paragraph they say,
19 We're pleased to announce that our industry-leading
20 COC is filling the needs of many healthcare
21 suppliers who seek a replacement for Barex
22 materials?

1 A I see that they're claiming that.

2 Q Do you have any reason to disagree with
3 that?

4 A I have no reason one way or the other to
5 agree or disagree. It's just someone saying it.

6 Q Let's take a look at the third paragraph,
7 last sentence.

8 Topas convertor customers have developed
9 innovated nicotine patch packaging solutions
10 utilizing COC for the transdermal industry.

11 Do you see that?

12 A I see that.

13 Q Do you have any reason to disagree with
14 that?

15 A Again, I don't know exactly what -- whether
16 they were successful or not. They're just
17 developing them.

18 Q So you don't know if when a company refers
19 to something as a solution, whether it's been
20 successful or not?

21 A Truth in advertising.

22 Q So does that apply to the '624 patent, truth

1 in advertising?

2 A No, no. This is advertising. The '624
3 patent is not advertising.

4 Q So we take the inventor at their word that
5 something is surprising when they're describing the
6 background in the patent? Is that a yes?

7 MR. GETZOFF: Object to form to that.
8 You can answer.

9 THE WITNESS: I think that we accept
10 the fact that that's his opinion.

11 BY MR. OGDEN:

12 Q So are you willing to accept the fact that
13 it was Topas' opinion that the COCs it was offering
14 before the priority date were useful in nicotine
15 patch packaging solutions?

16 A It doesn't say that they were useful.

17 Q What's a solution?

18 MR. GETZOFF: Objection to form.

19 BY MR. OGDEN:

20 Q Would you describe something that doesn't
21 work as a solution?

22 A I wouldn't.

1 Q So is it fair to say you just don't believe
2 what's in this precisely?

3 A With regard to what exactly?

4 Q That COCs are a replacement for Barex in
5 pharmaceutical packaging applications.

6 MR. GETZOFF: Objection to form.

7 THE WITNESS: I agree that it's his
8 opinion, that it's filling the needs of the
9 healthcare suppliers who are seeking a replacement.

10 So there's healthcare suppliers that
11 are seeking a replacement for Barex, and they're
12 ordering Barex material.

13 It doesn't say that it works.

14 BY MR. OGDEN:

15 Q So if we look in --

16 A And I'm not being skeptical or anything.
17 I'm just saying what it says.

18 Q Okay.

19 A It could be that they work, but it doesn't
20 say that.

21 Q So in the fourth paragraph there, it says,
22 Topas COC can be melt processed by all common

1 thermoplastic processing methods, including mono and
2 multilayer film, sheet, and extrusion coating, along
3 with injection and extrusion blow molding.

4 So you disagree with that statement?

5 A I don't disagree with that statement.

6 Q So if a POSITA read this, would they really
7 be surprised that COC worked in color extrusion
8 methods to create an aggressive chemical-resistant
9 packaging?

10 A Again, it doesn't say that they work, so
11 they might -- they would know they're being tested.

12 Q Well, has it turned out that the use of
13 Topas COCs in pharmaceutical packaging that require
14 strong chemical resistance has been successful?

15 A Say -- are you reading it from somewhere?

16 Q No.

17 I'm asking you if you with your 30-plus
18 years' experience and working with these different
19 polymers, do you know if since they were introduced
20 at least as of November 18, 2015, for this purpose,
21 have they been successful?

22 A I believe they have.

1 Q Would a POSITA recognize rivastigmine as an
2 aggressive chemical?

3 A I don't know what a POSITA would -- I mean,
4 it is listed as an aggressive chemical in the '624
5 patent.

6 Q Would a POSITA have recognized nicotine as
7 an aggressive chemical?

8 A I believe so.

9 Q Would a POSITA have recognized lidocaine as
10 an aggressive chemical?

11 A Possibly.

12 Q And would a POSITA have recognized fentanyl
13 as an aggressive chemical?

14 A Possibly.

15 Q And what is the meaning that you applied to
16 the term aggressive chemical resistant during your
17 analysis?

18 And I believe that it's in your declaration
19 here.

20 A Okay.

21 Q I'm going to try and find where.

22 MR. OGDEN: Mark, do you have a

1 citation that can help us move this along? Thanks.

2 BY MR. OGDEN:

3 Q Paragraph 53.

4 So my question is, what is the meaning that
5 you apply to the term -- let me get it exactly
6 right -- aggressive chemical-resistant film as that
7 term is used in the '624 patent -- sorry, there's a
8 better paragraph, 129.

9 A Yeah.

10 Q Let's go to that one.

11 A That's what I was looking for.

12 Q It was taking me a while too. I should have
13 used the table of contents because you had it nicely
14 laid out there.

15 So I guess I could ask it this way, when you
16 applied a definition of aggressive
17 chemical-resistant film as that term is used in
18 Claim 1 of the '624 patent, is that any film that
19 passes these kind of tests that you've identified as
20 one and two in paragraph 129?

21 A Yes.

22 Q Just to be clear on the record, does it need

1 to pass both tests to be an aggressive
2 chemical-resistant film?

3 A No, just one.

4 Q Just one? Okay. All right.

5 Now, applying that definition, would a POSA
6 have expect -- would a POSITA have expected that a
7 film that would be resistant to nicotine would be
8 resistant to fentanyl?

9 A May I look through Riis?

10 Q Sure. That's fine. I'm talking about the
11 definition of the '624 patent. But if that helps
12 you to look at Riis, you're welcome to.

13 A You're asking whether --

14 Q Whether a POSITA would have expected a film
15 that is resistant to nicotine to be resistant to
16 fentanyl based on your definition of an aggressive
17 chemical-resistant film.

18 A So nicotine and fentanyl?

19 Q Yes.

20 So the question is, would a POSITA have
21 expected a film that is resistant to nicotine to be
22 resistant to fentanyl as the definition that you

1 applied to aggressive chemical-resistant film for
2 the '624 patent?

3 A So in Riis, there is a difference between
4 nicotine and fentanyl.

5 Q And what is that difference?

6 A This is in the RED values. For Barex, it's
7 1.04; and for nicotine, it's .86.

8 Q And how does that relate to your need -- why
9 are you using these values from Riis to answer the
10 question of whether a POSITA would have expected a
11 film -- would a POSITA have expected a film that is
12 resistant to nicotine to be resistant to fentanyl?

13 A Riis has a table that compares fentanyl and
14 nicotine.

15 Q What table are you looking at? That will
16 help me.

17 A Table 1.

18 Q Do you know about what paragraph or page
19 that is?

20 A 32.

21 Q Oh, I see it.

22 MR. GETZOFF: 31.

1 THE WITNESS: 31?

2 MR. GETZOFF: It starts on 31.

3 MR. OGDEN: There's different ones on
4 the bottom and the top. They're off because of the
5 cover.

6 BY MR. OGDEN:

7 Q Paragraph 116, how about that?

8 A Yeah.

9 Q That's why I like paragraph numbers better.
10 So a POSITA would have relied on this table
11 with respect to their expectation of whether a film
12 that is resistant to nicotine would also be
13 resistant to fentanyl?

14 A So Hansen's claim -- I mean, not Hansen.
15 Riis' claim is that the -- Hansen's
16 solubility parameter is useful in determining the
17 absorption.

18 Q Let's look at the '624 patent. Let's take a
19 specific example. Let's go to Table 3. That's at
20 Column 16.

21 I want to stick with Laminate 5.

22 A Column 16, yeah.

1 Q And do you see there that Laminate 5 has a
2 base layer of aluminum, correct?

3 A Base layer of aluminum, yes.

4 Q And then you see that it has a tie layer
5 that's a terpolymer of ethylene acrylic ester and
6 maleic anhydride.

7 Do you see that?

8 A I see that.

9 Q And then it has a contact layer that is a
10 COC.

11 A Yes.

12 Q And then in addition, there's also a first
13 outer layer that's made of polyethylene.

14 Do you see that?

15 A Yes.

16 Q And a second outer layer that's made of PET,
17 P-E-T?

18 A Yes.

19 Q Then do you see down below for the
20 coextrusion layers, so let's see, it says,
21 Laminates 1 to 5 were obtained according to the
22 method of the disclosure. For Laminates 1, 2, 4,

1 and 5, a coextrusion layer was coated to the base
2 layer.

3 Do you see that?

4 A Yes.

5 Q So you understand that in Laminate 5, a tie
6 polymer -- I mean, sorry, a tie layer of terpolymer
7 of ethylene acrylic ester and maleic anhydride was
8 coextruded with a contact layer of COC onto
9 aluminum, correct?

10 A That is correct.

11 Q And the loading of that tie layer was
12 between 4 and 18 grams per meter squared.

13 Do you see that?

14 A I see that.

15 Q And the loading of the contact layer was
16 8 to 12 grams per meter squared.

17 Do you see that?

18 A I see that.

19 Q Now, there are some experimental results of
20 Laminate 5 shown in Figure 4. And Laminate 5 is
21 represented in Figure 4 as coex COC.

22 Please let me know if you agree with that.

1 If you look in Table 3, the only laminate
2 that has COC as the contact layer is Laminate 5.

3 Do you see that?

4 A I see that. I was looking for the text of
5 Figure 4.

6 Q That corresponds to the far right bars of
7 Figure 4. Take a look at Figure 4 with me.

8 A Yeah, I was looking for the text of
9 Figure 4.

10 Q Oh, okay. Oh, please do. Sorry.

11 A Yeah.

12 Q If you look at Column 17.

13 A 17?

14 Q Yeah.

15 A Okay.

16 Q And do you agree that based on the
17 experimental results in Figure 4 that Laminate 5
18 would be considered an aggressive chemical-resistant
19 film based on the definition that you applied?

20 A You were talking about, like, nicotine and
21 fentanyl, right?

22 Q You have a definition.

1 A Okay.

2 Q Your definition that we just went through,
3 there's a one and a two. One of them relates to
4 comparison to Barex --

5 A We've past nicotine and fentanyl.

6 Q Yeah, I said we're moving on to a new
7 example. It's not a trick question because I think
8 it does meet the Barex thing. I want to make sure
9 I'm reading the graph correctly.

10 So with respect to that last set of bars
11 that is the COC contact layer, does that meet the
12 definition of being an aggressive chemical-resistant
13 film based on these experimental results?

14 A It appears so.

15 Q And that's with respect specifically --
16 these experiments were specifically done with the
17 API rivastigmine, correct?

18 A That is correct.

19 Q Now, here's my question. So then if you go
20 to -- if we keep reading on through, then they do
21 another experiment with lidocaine, and I think
22 there's a Figure 5. There is a Figure 5. And this,

1 I believe, is the other test.

2 So you see that middle bar there is the one
3 that corresponds to the Laminate 5 that has the C0C
4 contact layer in Figure 5, and the text is still in
5 Column 17 if you need to use that.

6 A 17? Okay.

7 Q And all I want to know is, is Laminate 5
8 here, based on these experimental results in
9 Figure 5, does that appear to meet your definition
10 of an aggressive chemical-resistant film at least
11 with respect to lidocaine?

12 A Yes.

13 Q So we've established now that Laminate 5 in
14 these experimental results provided in the '624
15 patent appears to meet your definition with respect
16 to rivastigmine and lidocaine, correct?

17 A That is correct.

18 Q So would a POSITA have expected that
19 Laminate 5 would also meet the definition of an
20 aggressive chemical-resistant film with respect to
21 nicotine?

22 Is there something you need to know to be

1 able to --

2 A I'm looking for the results.

3 Q There are no results for anything else in
4 this patent except for rivastigmine and lidocaine.

5 So what I want to know is, having those
6 results, would a POSITA looking at Laminate 5 expect
7 that that same laminate would be resistant to
8 nicotine?

9 A And you're saying you're trying to predict
10 that without seeing any results?

11 Q Right.

12 So the only results that are given in the
13 '624 patent relate to rivastigmine and to lidocaine.
14 And the only COC contact layer of film that's used
15 in those experiments is that Laminate 5.

16 So would a POSITA who has this in front of
17 them, would they expect that Laminate 5 would also
18 be resistant to nicotine under the definition that
19 you provided for an aggressive chemical-resistant
20 film?

21 A I believe that they would want the results
22 with the test.

1 Q I understand that.

2 A Yeah.

3 Q I wish that the results of the test were
4 here, but we don't have results for fentanyl, and we
5 don't have results for nicotine.

6 A Okay.

7 Q We're going to start with nicotine.

8 With all the information that a POSITA would
9 have known plus the teachings of the '624 patent,
10 would they have expected that Laminate 5 would also
11 be resistant to nicotine under the definition that
12 you applied?

13 A Can I compare the Hansen solubility
14 parameters from Riis?

15 Q If the Hansen solubility parameters matched
16 in the way that you're going to look for, would that
17 be sufficient for a POSITA to have an expectation
18 that Laminate 5 would also be chemical resistant to
19 nicotine?

20 A I think the proof is the test.

21 Q So they would not have an expectation --

22 A They might have the expectation.

1 Q They might have it?

2 A They might have it, but the proof would be
3 the test.

4 Q Do you think that they would have to make
5 modifications to Laminate 5 -- or how about this, do
6 you think that they could successfully modify
7 Laminate 5 to be chemical resistant to nicotine if
8 it was not when they got their first results?

9 A I mean, it's possible.

10 Q Do you think it would take undue or
11 unreasonable experimentation to modify Laminate 5 to
12 be resistant to nicotine if it did not meet the
13 definition when they got the results?

14 A I'd have to see the results.

15 Q The only way you'd know is if you saw the
16 results?

17 A Yeah.

18 MR. OGDEN: Let's take a break.

19 (Recess: 4:05 p.m. to 4:16 p.m.)

20 BY MR. OGDEN:

21 Q Let's go take a look at paragraph 214 of
22 your declaration. This relates to the substitute

1 claims in the motion to amend. And if you take a
2 look in that -- the part where it says Substitute
3 Claim Limitation, you see 14A, and it recites, A
4 method for providing an aggressive
5 chemical-resistant film, wherein the aggressive
6 chemical-resistant film is resistant to a chemical
7 selected from nicotine, fentanyl, rivastigmine, and
8 lidocaine, said method comprising.

9 Do you see that?

10 A Yes.

11 Q And are you familiar with the term preamble
12 with respect to a patent claim?

13 A Yes.

14 Q And do you understand that Limitation 14A is
15 the preamble of the substitute amended claim?

16 A So what's the question?

17 Q Do you understand that that is the
18 preamble --

19 A Yeah.

20 Q -- of the claim?

21 And is the preamble recited there in 14A, is
22 that limiting?

1 MR. GETZOFF: Objection to form.

2 BY MR. OGDEN:

3 Q So let me back up.

4 Do you understand that a preamble may or may
5 not be limiting; in other words, it may or may not
6 limit a claim?

7 A I really don't know.

8 Q That's fine.

9 So you didn't provide an opinion as to
10 whether the preamble is limiting?

11 A No.

12 Q That's fine.

13 So now I don't have it, but if you'll put --
14 the easiest way to do this is if you'll put Claim 1
15 next to that 14A.

16 If you take a look at the preamble of
17 Claim 1, you'll see that in the series there, it
18 says, Nicotine, fentanyl, rivastigmine, or
19 lidocaine.

20 Do you see that?

21 A Yes.

22 Q So it uses "or" in the preamble of Claim 1.

1 Do you see that?

2 A I do see that.

3 Q One of the changes in substitute Claim 14 is
4 that "or" is being amended to recite the word "and."

5 Do you understand that?

6 If you look at 14A over there, it recites,
7 Nicotine, fentanyl, rivastigmine, and lidocaine.

8 Do you see that?

9 A Yes, I do see that.

10 Q Do you have any opinion as to whether
11 amending the "or" to the word "and" changes the
12 scope of the claim?

13 A Is it possible I could read the drug part of
14 this?

15 Q The drug part?

16 A You know, where it goes through these drugs.

17 Q Well, how would that assist you in answering
18 the question of answering --

19 A I'm hoping it does.

20 Q You're hoping it does?

21 Well, let me ask it this way, I didn't see
22 anywhere in your declaration where you provided an

1 opinion as to whether the change from "and" -- from
2 "or" to "and" changes the scope of the claim.

3 Do you think there's anywhere in your
4 declaration that speaks on that?

5 A No.

6 Q Then we don't need to look into the patent.
7 And you prepared the declaration, correct?

8 A That is correct.

9 Q Did you write everything in the declaration?

10 A I wrote a lot of it.

11 Q Let's take a look back at Exhibit 1028, and
12 that was four layers that had loading ranges on
13 them, one of those single sheets that I handed you.
14 It looks like that.

15 A Okay. 1028.

16 Q And I'll represent to you, again, that this
17 schematic represents a portion of Example 5 in Riis,
18 so if you need to look at Example 5, please do. But
19 it's only the portion that is the coextrusion of
20 EAA, polyethylene, and COC onto the aluminum foil.

21 A Do you have a page number?

22 Q Sure. Just a second. I think it was

1 paragraph 174. Yes.

2 MR. GETZOFF: Paragraph 174?

3 MR. OGDEN: Paragraph 174, and the
4 bottom of the page is 45 of 64.

5 BY MR. OGDEN:

6 Q So this schematic represents where it says,
7 In this example, the sealant film was a three-layer
8 coextrusion of EAA, LDPE, and ethylene norbornene
9 copolymer (COC), which was extrusion coated onto the
10 aluminum foil surface.

11 And here is my question, in Exhibit 28 right
12 here, is it correct that EAA is adhered to the
13 aluminum foil?

14 A I didn't --

15 Q We'll go with Example 5 if that makes you
16 more comfortable.

17 In Example 5, is the EAA layer that's
18 referenced as .17-mil EAA, is that adhered to the
19 aluminum foil?

20 A Yes.

21 Q And in --

22 A It appears so.

1 Q Is the .17-mil EAA adhered to the .65-mil
2 LDPE layer?

3 A Yes, I believe so.

4 Q And then in turn, is the .65-mil LDPE layer
5 adhered to the .17-mil EAA layer?

6 A Did you just ask me that? You said the .17
7 EAA layer?

8 Q So I'm asking it two ways.

9 First I want to understand, the EAA layer
10 that is .17 mil is adhered on one side to the
11 aluminum foil and on the other side to the .65-mil
12 LDPE layer, correct?

13 A That is correct.

14 Q And then I want to look at this polyethylene
15 layer.

16 So this .65-mil LDPE layer is adhered on one
17 side to the .17-mil EAA layer and on the other side
18 to the .43-mil COC layer, correct?

19 A That is correct.

20 Q You can put that away.

21 MR. OGDEN: Let's take a look at that
22 other declaration, please.

1 And for this, we're going to call this
2 1029.

3 (Marked Exhibit 1029.)

4 BY MR. OGDEN:

5 **Q Have you seen this document before?**

6 **A Yes.**

7 **Q And what is this document?**

8 **A This is my declaration in support of a**
9 **petition for postgrant review of U.S. Patent**
10 **Number 10,889,093.**

11 **Q And if you look at the last page, 85, is**
12 **that your signature at the bottom?**

13 **A Yes.**

14 **Q Let's take a look at paragraph 67; it's on**
15 **page 41.**

16 And here you rendered an opinion that a POSA
17 would have been motivated to modify the multilayer
18 structure discussed in Claim 1 as needed to fall
19 within the appropriate thickness range to create a
20 usable film for a particular purpose like meat
21 packing.

22 Do you see that?

1 A I see that.

2 Q Now, with respect to Riis that we talked
3 about, do you agree that a POSA would have been
4 motivated to modify the multilayer structure of
5 Riis' Example 5 as needed to fall within the
6 appropriate thickness range to create a usable film
7 for a particular purpose?

8 A No.

9 Q And why is it different for Riis than it was
10 in this PGR?

11 A Because in Riis, the LDPE layer is a bulk
12 layer. And it is my opinion that the bulk layer
13 needs to remain thick to serve as the bulk layer.

14 Q So in your opinion, if you reduce the
15 thickness of the bulk layer of Riis' Example 5,
16 would that affect the ability for Riis' Example 5 to
17 be a usable film for the desired purpose of Riis?

18 A Well, it teaches away from Riis, and I don't
19 believe that it should be done. I don't believe
20 that that should be done.

21 Q It teaches away from one disclosure of a
22 preference in Riis, correct?

1 A Let me check.

2 So I believe it is the purpose of the bulk
3 layer to provide the stiffness and heat sealability.
4 That's the main purpose. That's what it says the
5 purpose of the bulk layer is.

6 Q So would a skilled artisan have been -- so
7 Example 5 of Riis, we agree it has a point -- say
8 .65-mil LDPE bulk layer, correct?

9 A Let me check.

10 Q It's what we were looking at at
11 paragraph 174.

12 A 174?

13 .65, yes.

14 Q Then if you'll take a look at paragraph 65,
15 please, of Riis.

16 A Yeah.

17 Q There he said, The bulk layer may be of any
18 suitable thickness from .1 to 7 mils or may even be
19 omitted for use in certain applications.

20 Do you see that?

21 A I see that.

22 Q So Riis is teaching that the bulk layer may

1 be of any suitable thickness from .1 mils to 7 mils,
2 correct?

3 A Yes, I see that.

4 Q Okay.

5 A But in this case, the bulk layer is
6 .65 mils. And as such, it should not be reduced.

7 Q So are we just ignoring the disclosure that
8 Riis says that the bulk layer may be of any suitable
9 thickness from .1 to 7 mils?

10 A I think that refers to if you're creating a
11 new bulk layer. This bulk layer is already serving
12 a purpose, and, therefore, that's why it should not
13 be reduced.

14 Q Can you pick up -- what did we make that
15 declaration? Set Riis aside for a minute. Let's
16 take a look, again, at Exhibit 1029, your
17 declaration from the first PGR of the year,
18 PGR2022-00001.

19 A Yeah.

20 MR. OGDEN: Sterne Kessler was on it.

21 BY MR. OGDEN:

22 Q And I want to look at paragraph 68. And you

1 state, This claim would also have been obvious as a
2 matter of design choice. I understand that absent
3 any criticality, specific dimensions or dimensional
4 ranges are obvious as a matter of design choice,
5 especially when these ranges were known in the art,
6 as is the case with the claimed thickness range.

7 Do you stand by that statement?

8 A I would have to revisit this. It's been a
9 while since I've seen this. I don't think it
10 overrules Riis.

11 Q Okay.

12 A Riis should not be reduced. The thickness
13 should not be changed in Riis.

14 Q I want to start with this.

15 When you provided your sworn testimony to
16 the board on October 12, 2021, it was your testimony
17 with respect to this other patent that absent any
18 criticality, specific dimensions or dimensional
19 ranges are obvious as a matter of design choice,
20 especially when these ranges were known in the art,
21 as is the case with the claimed thickness range.

22 That was your sworn testimony, correct?

1 A Can you say that again?

2 Q I'm reading it directly from there, and you
3 wrote -- well, you signed your sworn testimony as
4 being, I understand that absent any criticality,
5 specific dimensions or dimensional ranges are
6 obvious as a matter of design choice, especially
7 when these ranges were known in the art (as is the
8 case with the claimed thickness range).

9 That was your sworn testimony, correct?

10 A Again, that's a different case, and that's
11 not what I believe to be the case here. I believe
12 that the dimensions in Riis should remain.

13 Q So let me ask you this -- good point.

14 First, that was your sworn testimony,
15 correct? You don't disagree that what I'm reading
16 right now was your sworn testimony to the board,
17 right?

18 A Again, this is taken out of context. I'd
19 have to read this to understand what this sentence
20 was related to.

21 Q So you don't know if this is your sworn
22 testimony in this document that you signed? That's

1 all I'm asking. It's a yes-or-no question. It's
2 not hard. If I write something and I swear at the
3 end of it, then I think it's my sworn testimony.

4 And I'm asking, is this your sworn
5 testimony?

6 A It appears to be taken out of context of my
7 sworn testimony.

8 Q Now, it was your representation to the board
9 that this theory applied with respect to U.S. Patent
10 Number 10,889,093, correct?

11 MR. OGDEN: I'll withdraw the question.

12 BY MR. OGDEN:

13 Q So it's your opinion that this testimony you
14 gave in PGR2022-00001 doesn't apply in the current
15 PGR you're here to testify about today because Riis
16 indicates that the thickness is critical? Is that
17 your testimony?

18 A My testimony is that, in Riis, the thickness
19 of the bulk layer should not be changed.

20 Q Is that thickness critical according to
21 Riis?

22 A It is for the bulk layer.

1 Q Now, sitting here today, are you aware of
2 anything in the '624 patent that indicates that the
3 thickness of the tie layer and/or the loading --
4 well, let's stick with -- let me ask that again.

5 Sitting here today, are you aware of
6 anything in the '624 patent that indicates that the
7 thickness of the tie layer is critical to practicing
8 the claimed inventions?

9 A In the '624 patent?

10 Q Yeah.

11 Without looking, are you aware of anything?

12 A Without looking?

13 Q Yeah. I want to know that first because I
14 don't have another 45 minutes for you to look. So I
15 just want to know if you know of anything without
16 looking.

17 A Say it again.

18 Q Do you know sitting here today without
19 looking through the patent, is there anything in the
20 '624 patent that indicates that the thickness of the
21 tie layer is critical to practicing the claimed
22 inventions?

1 A I know the thickness of the tie layer should
2 be minimized.

3 Q And then sitting here today, I'm not
4 aware -- and you can tell me if I'm wrong -- of
5 anywhere in your declaration that you indicate that
6 loading is critical to practicing the claimed
7 inventions of the '624 patent; is that correct?

8 A Can I check?

9 Q Sure. I'll represent to you that the word
10 critical doesn't appear anywhere in your
11 declaration.

12 Doctor, do you intend to read every
13 paragraph of your report to answer this question?

14 A I don't think I need to read every one.

15 Q Doctor, could you let me know what page
16 you're on so I could follow along a little bit?

17 A I'm on 67.

18 So you asked about the loading?

19 Q My question was -- and I'll represent to you
20 the word critical or criticality is nowhere in your
21 expert report -- your declaration.

22 Is there anywhere in your declaration that

1 you indicate that loading is critical to practicing
2 the claimed inventions of the '624 patent?

3 MR. GETZOFF: Is your question just
4 strictly whether he used the word critical in
5 relation to --

6 MR. OGDEN: No, I'm trying to find out,
7 is there anything that he thinks goes to the
8 criticality expressed by the '624 patent to the
9 claimed ranges, not Riis but the '624 patent.

10 BY MR. OGDEN:

11 Q The pages you're looking at only have
12 citations to Riis, the pages that you were just on.

13 MR. OGDEN: I think I'll withdraw the
14 question and note for the record that we've been
15 going for over 15 minutes, and you haven't been able
16 to identify to me a portion of your declaration
17 where you indicated that loading is critical to
18 practicing the claimed inventions of the '624
19 patent. I'd ask to move on.

20 THE WITNESS: I found a place where
21 loading is used.

22

1 BY MR. OGDEN:

2 Q What do you mean by loading is used?

3 A Loading -- it says, Accordingly the loading
4 of the .65-mil LDPE layer cannot be included in the
5 calculation of the loading of the tie layer.

6 Q And what does that have to do with the '624
7 patent's indication that the claimed loading ranges
8 are critical?

9 A The 6 --

10 MR. OGDEN: I'll withdraw the question.

11 THE WITNESS: Okay.

12 BY MR. OGDEN:

13 Q Go to paragraph 83 of your expert report,
14 please, Exhibit 2014.

15 And here in paragraph 83, you wrote,
16 Moreover, one skilled in the art would refer to a
17 layer in a film in accordance with that layer's
18 primary purpose.

19 Do you see that?

20 A It starts off that, As acknowledged by
21 Dr. Spontak regarding his discussion of the
22 multilayer films, each layer of the laminate or

1 multilayer film serves a particular purpose that is
2 relevant to the target application.

3 Q Can I ask my question again? Do you see in
4 paragraph 83 where you wrote, Moreover, one skilled
5 in the art would refer to a layer in a film in
6 accordance with that layer's primary purpose?

7 A I do see that, and I was referring back to
8 how I got the primary purpose.

9 Q But the answer is, you see what I'm
10 referring to, this line, Moreover, one skilled in
11 the art would refer to a layer in a film in
12 accordance with that layer's primary purpose? Do
13 you see that?

14 A Yes, I see that.

15 Q And do you cite to any documentary evidence
16 to support that statement?

17 A I believe it's cited in Dr. Spontak's report
18 and deposition.

19 Q Sir, did Dr. Spontak -- you didn't cite
20 Dr. Spontak's deposition here, did you?

21 A I did not.

22 Q All right.

1 A You asked for all of the evidence.

2 Q No, I didn't.

3 A No, you didn't?

4 Q I didn't. But that's fine.

5 So you believe there is a portion of
6 Dr. Spontak's declaration where he testified that
7 one skilled in the art would refer to a layer in a
8 film in accordance with that layer's primary
9 purpose?

10 A I believe so.

11 Q Now, this quote you have up above from
12 Dr. Spontak, does that say that one skilled in the
13 art would refer to a layer in a film in accordance
14 with that layer's primary purpose?

15 A Well, it says, Each layer of the laminate or
16 multilayer film serves a particular purpose that is
17 relevant to the target application.

18 Q But he didn't testify that one skilled in
19 the art would refer to a layer in a film in
20 accordance with that primary purpose, did he?

21 MR. GETZOFF: Objection to form.

22 THE WITNESS: He might have.

1 BY MR. OGDEN:

2 Q And you didn't cite that if he did in this
3 paragraph, did you?

4 A It doesn't appear so.

5 Q So your only evidence that one skilled in
6 the art would refer to a layer in a film in
7 accordance with that layer's primary purpose is what
8 you've quoted here from Dr. Spontak, what you think
9 he said during a deposition, and your years of
10 experience, correct?

11 A And my opinion.

12 Q Let's pick up the '624 patent. It's
13 Exhibit 1001, go to Column 9, and I want to look at
14 lines 28 to 32. And I'll read into the record,
15 Specific films according to the disclosure comprise
16 but are not limited to base layer/tie layer/contact
17 layer (the latter two coextruded) EAA/PE/COC, comma.

18 Do you see that?

19 A I see that.

20 Q And so there, that statement, the '624 is
21 indicating that polyethylene is a tie layer,
22 correct?

1 A It's stating that the '624 patent is calling
2 polyethylene a tie layer, but it doesn't mean
3 that -- it's not my opinion -- it's my opinion that
4 the polyethylene is not a tie layer back to Riis
5 because it's not a multifunctional material, and
6 it's particularly used as a bulk layer --

7 Q So you disagree -- sorry, I didn't mean to
8 cut you off.

9 A -- in Riis.

10 Q So you disagree with this statement here at
11 Column 9 that according to the '624 patent
12 polyethylene can be a tie layer?

13 A I believe that the '624 patent is able to
14 define polyethylene as a tie layer, and it doesn't
15 mean that it's a tie layer in Riis. I believe that
16 Riis defines the tie layer as a multifunctional
17 layer. And the LDPE layer in Riis is not a tie
18 layer; it is a bulk layer.

19 MR. OGDEN: I think I need one more
20 short break, and I'll clean up. Maybe I won't have
21 anything else.

22 (Recess: 5:08 p.m. to 5:16 p.m.)

1 (Marked Exhibit 1030.)

2 BY MR. OGDEN:

3 Q I've put in front of you Exhibit 1030. It's
4 Patent Number 10,889,093. This is the patent that
5 was the subject of your other PGR declaration that
6 was Exhibit 1029. If you could take a look at
7 Column --

8 MR. GETZOFF: I'm sorry, Counsel, did
9 you give us a copy?

10 MR. OGDEN: I'm sorry.

11 MR. GETZOFF: This is Exhibit --

12 MR. OGDEN: 1030.

13 MR. GETZOFF: Thank you.

14 BY MR. OGDEN:

15 Q If you could take a look at Column 23, and
16 there's a section at Column 23 called Manufacture.
17 I'm going to read this first paragraph here, starts
18 at line 2.

19 It says, Referring now to Figures 2, 12, 13,
20 and 14, Sheet 10, according to some embodiments of
21 the present invention, may be formed according to a
22 multistep manufacturing process (herein referred to

1 process). The process may comprise a blown film
2 processing step comprising a blown film extrusion
3 machine 900. The process may alternatively comprise
4 a cast film processing step comprising a cast film
5 apparatus.

6 Do you see that?

7 A Yeah. Can I just look and see what this is
8 in reference to?

9 Okay. Yeah, I see it.

10 **Q All I want to know is if you see that.**

11 So you see in this patent it's describing
12 two processes that can be used to produce a sheet of
13 the claimed invention.

14 Do you see that?

15 A So this invention is hocus-pocus.

16 **Q Okay.**

17 A It's just totally made up. And I was on the
18 opposing side.

19 **Q I understand.**

20 A I wouldn't believe anything in this. I
21 don't believe anything in this.

22 **Q That's fine. I'm not going to ask you about**

1 whether you believe anything in this.

2 Let's pick up Exhibit 1029 again, which is
3 your declaration from the PGR related to this
4 patent, and go to paragraph 31, please. So
5 Exhibit 1029.

6 A My declaration?

7 Q Yes, the one from the PGR that ends in
8 00001. It's Exhibit 1029. You may be holding it.
9 I'm not sure.

10 A Okay.

11 Q And let's go to paragraph 31.

12 In this paragraph, it's a one-sentence
13 paragraph, after the comma, you wrote, In my
14 opinion, it is clear that the alleged invention of
15 the '093 patent includes even a simple three-layer
16 sheet made using conventional blown and cast film
17 techniques.

18 Do you see that?

19 A I do see that.

20 Q So you agree that you wrote here that this
21 particular patent related to conventional blown and
22 cast film techniques, correct?

1 A I don't know what the context of this is.

2 Q Okay.

3 A If you want me to read it, I can try and
4 figure it out.

5 Q No. I just want to go now to paragraph 27.

6 In paragraph 27, you provided your definition of the
7 level of skill in the art with respect to the '093
8 patent. And here it is a Bachelor of Science degree
9 in chemical engineering, material science, or
10 mechanical engineering (or equivalent), as well as
11 at least two to four years of academic or industry
12 experience with multilayer polymer material
13 production or research. Less work experience may be
14 compensated by a higher level of relevant education,
15 such as a Master of Science degree and vice versa.

16 Do you see that in paragraph 27?

17 A Yeah.

18 Q And here with respect to the '093 patent,
19 your definition of the level of skill in the art did
20 not include any requirement that a POSITA have any
21 particular experience with a coextrusion -- sorry,
22 with any type of extrusion technique, correct?

1 A That was an omission on my part.

2 Q So when you provided your sworn testimony
3 here, it's your opinion that you should have added
4 more limitations to the level of ordinary skill in
5 the art?

6 A Absolutely.

7 Q And what would those limitations have been?

8 A One year.

9 Q One year with blown -- sorry, I forgot what
10 it said.

11 A Coextrusion.

12 Q Well, would it be conventional blown and
13 cast film techniques?

14 A Yes.

15 Q And so who came up with, if you know, the
16 definition of the level of skill in the art that you
17 signed as Exhibit 1029?

18 A I believe it was a combination of myself and
19 the lawyers.

20 Q And is it possible that you omitted a
21 requirement for experience with actual materials
22 processing because in that case you were

1 representing the petitioner?

2 A No.

3 MR. OGDEN: I'll pass the witness.

4 Thank you for your time.

5 MR. GETZOFF: Off the record.

6 (Discussion off the record.)

7 (Recess: 5:24 p.m. to 5:29 p.m.)

8 MR. GETZOFF: No questions. We'll read
9 and sign.

10 THE STENOGRAPHER: Do you want a rough
11 draft emailed out tonight?

12 MR. GETZOFF: Yes.

13 (Time noted: 5:29 p.m. MT.)

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1 CERTIFICATE OF SHORTHAND REPORTER

2

3 I, ELISABETH A. LORENZ, Registered
4 Merit Reporter and Certified Realtime Reporter, the
5 officer before whom the foregoing deposition was
6 taken, do hereby certify that the foregoing
7 transcript is a true and correct record of the
8 testimony given; that said testimony was taken by me
9 stenographically and thereafter reduced to
10 typewriting under my direction; that reading and
11 signing was requested; and that I am neither counsel
12 for, related to, nor employed by any of the parties
13 to this case and have no interest, financial or
14 otherwise, in its outcome.

15 IN WITNESS WHEREOF, I have hereunto set
16 my hand this 30th day of November, 2023.

17

Elisabeth A. Miller Lorenz

18

19 ELISABETH A. LORENZ

20 NCRA Registered Merit Reporter

21 NCRA Certified Realtime Reporter

22

1

2

ACKNOWLEDGMENT OF DEPONENT

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9

I, STEPHEN MCCARTHY, PH.D., do hereby
certify that I have read and examined the foregoing
testimony, and that the same is a true, correct, and
complete transcription of the testimony given by me,
and any corrections appear on the attached
Deposition Errata Sheet signed by me.

10

11

12

13

14

STEPHEN MCCARTHY, PH.D.

DATE

15

16

17

18

Subscribed and sworn to on the ____ day of

19

_____, 2023, before me,

20

21

Notary Public, in and for the State of

22

_____.

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HUHTAMAKI FLEXIBLE PACKAGING vs ADAPA FLEXIBLE

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