

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

ADAPA FLEXIBLES DENMARK SLAGELSE A/S
f/k/a DANAPAK FLEXIBLES A/S,¹
Patent Owner.

PGR2023-00008
Patent 11,260,624 B2

Record of Oral Hearing
Held: April 12, 2024

Before JO-ANNE M. KOKOSKI, KRISTINA M. KALAN, and
BRIAN D. RANGE, *Administrative Patent Judges*.

¹ Patent Owner represents that “Danapak Flexibles A/S has changed its name to adapa flexibles Denmark Slagelse A/S.” Paper 23, 2 (Patent Owner’s Second Updated Mandatory Notices).

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The above-entitled matter came on for hearing on Tuesday, April 9, 2024, commencing at 1:00 p.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

P R O C E E D I N G S

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JUDGE KALAN: Thank you. Good morning and good afternoon. I'm Judge Kristina Kalan, and on the panel with me today are Judges Jo-Anne Kokoski and Brian Range. This is a final hearing by video in Case Number PGR2023-00008. The '008 PGR concerns U.S. Patent Number 11,260,624 B2.

At this time I would like counsel to introduce themselves and their colleagues for the record, starting with Petitioner.

MR. LEVY: Thank you, Your Honor. My name is Ryan Levy from Patterson Intellectual Property Law on behalf of Petitioner Huhtamaki. I'm joined by my colleagues, Seth Ogden, Mark Kilgore, and Sam Raque.

JUDGE KALAN: Thank you. And Patent Owner?

MR. GETZOFF: Good morning, Your Honors. I am Timothy Getzoff of Holland & Hart on behalf of the Patent Owner, Adapa Flexibles. With me today are two of my co-counsels, Steve Avena and Randy Roeser.

JUDGE KALAN: Thank you. And Mr. Levy, will you be presenting all of Petitioner's arguments? You had reserved LEAP time, so I assume you'll be splitting at least part of it with Mr. Kilgore.

MR. LEVY: You're correct, Your Honor. I'll be splitting part of it with Dr. Kilgore.

JUDGE KALAN: Dr. Kilgore, thank you. And Patent Owner, will -- Mr. Getzoff, will you be splitting any of your argument time?

MR. GETZOFF: No, that's not our intent.

JUDGE KALAN: Thank you.

1 MR. GETZOFF: May I inquire, is that a decision we can make on the
2 fly or would you like to commit to that now?

3 JUDGE KALAN: We'd like to know in advance, but if you find it
4 necessary to switch gears, please just let us know as soon as you can.

5 MR. GETZOFF: Thank you.

6 JUDGE KALAN: A few more minor points -- major points. This
7 hearing is open to the public. A full transcript of the hearing will be made
8 part of the record. All of the Judges on the panel have access to the
9 complete record and your demonstrative slides. When you refer to a
10 demonstrative exhibit, please state the slide or the page number that you're
11 referring to, or if there aren't page numbers, the title of the slide, or some
12 other way in which we can identify which slide you're referring to for the
13 record. When you're not speaking, please mute yourself for clarity of the
14 record as well.

15 As we set forth in our hearing order, each party has 60 minutes to
16 present arguments. Because Dr. Kilgore is appearing as a LEAP
17 practitioner, Petitioner has an additional 15 minutes for a total of 75 minutes,
18 and Petitioner will proceed first. You may reserve time for rebuttal. Mr.
19 Levy, how much time would you like to reserve for your rebuttal?

20 MR. LEVY: Yes, Your Honor, we'd like to reserve 15 minutes.

21 JUDGE KALAN: Thank you. And then Patent Owner will have 60
22 minutes to present Patent Owner's case and may reserve time for a
23 surrebuttal. Mr. Getzoff, how much time would you like to reserve for your
24 surrebuttal?

25 MR. GETZOFF: Ten minutes, Your Honor.

1 JUDGE KALAN: Ten minutes. Give me a moment to set up the
2 timer and then I have Petitioner beginning at four minutes after the hour.
3 Petitioner, you may proceed.

4 MR. LEVY: Thank you, Your Honor. And may it please this panel,
5 so usually I like to start at the beginning of a presentation, go to the end and,
6 you know, really sum it up there. But after looking at our slides and also
7 Patent Owner's slides, we think it probably provides better context to jump
8 ahead a bit, set the stage, really highlighting the key issue in the dispute
9 here.

10 So with that said, I'd like to jump to Patent Owner's slide 29. They
11 don't have page numbers, but it's a 29th slide, and I believe it says, "Ground
12 2." We have it on the screen there. And so here's the 29th slide. And what
13 it does, it lays out both parties' interpretation of the plain and ordinary
14 meaning of the tie layer. And there really is little in the way of a dispute that
15 does not somehow come back to this throughout all the discussions,
16 arguments, whatnot. This is really central.

17 And looking at the right side, you know, from the absolute beginning,
18 Petitioner has advanced that a tie layer is due its plain ordinary meaning, and
19 that's simply a layer that provides sufficient adhesion between adjacent
20 layers of film. And this is supported by the intrinsic record as the '624
21 patent. It states that the tie layer is selected to provide sufficient adhesion
22 between the base layer and the coextrusion layer. It also can provide other
23 properties as well, such as melt strength and support.

24 And importantly, both experts here, they originally agreed on this. In
25 the first deposition, Patent Owner's expert, Dr. McCarthy, he testified that
26 the plain and ordinary meaning of the term "tie layer" as is used in the '624

1 patent, it's something that provides sufficient adhesion between the base
2 layer and the coextrusion layer. That's not what we see in Patent Owner's
3 sur-reply.

4 If we turn to the left side here, here is Patent Owner's interpretation of
5 the plain and ordinary meaning of tie layer. And this requires really three
6 separate parts and, in Petitioner's opinion, it's completely divorced from the
7 intrinsic evidence. And what's happened is Patent Owner has come up with
8 this interpretation of plain and ordinary meaning to try and avoid a key prior
9 art reference, *Riis*, as *Riis* describes the method for creating really the exact
10 same film as claimed in the '624 patent.

11 And if you look at the first part of Patent Owner's definition, Patent
12 Owner imports a primary purpose limitation into the plain and ordinary
13 meaning of what tie layer is. And notably, if you conduct an examination of
14 the '624 patent, you will not find the phrase "primary purpose" anywhere
15 within that specification. And the reason Patent Owner is using part one of
16 their definition is so they can move to the second part, where they then can
17 use an expert to opine about that layer's property and provide testimony that
18 would suggest what the primary purpose is. So, being more specific, what
19 Patent Owner suggests is anything from absolute thickness to relative
20 thickness to peel strength as a primary purpose. And they use their expert,
21 Dr. McCarthy, to put forward unsupported testimony and really to suggest
22 that the primary purpose of a tie layer is not adhesion, and thus that layer is
23 simply not a tie layer.

24 JUDGE KALAN: Counsel, are you aware of any case law or any
25 other authority that would set out a primary purpose test, as it were?

1 MR. LEVY: Well, I guess a couple things, Your Honor. Speaking of
2 just case law, you know, looking at *Phillips* itself, when you look at the
3 entire specification and determine the primary meaning there, you're looking
4 at the intrinsic record. So the first thing you have is there's not primary
5 purpose at all. But then even beyond that, if it's a situation where we're
6 considering other purposes, *KSR* would allow other purposes to be
7 considered as well. But again, we're looking at claims in a situation where
8 there's not even the term "primary purpose" at all in the specification.

9 So, with that said, when we have this here and they put forth this
10 testimony and developed this position where, again, the tie layer is not the
11 tie layer, and then you move to the last portion of the definition. And that's
12 one of the parts that we find quite troubling ourselves, is what you see there
13 in part 3 is, "for which a primary reason for including the layer in the film
14 was to serve that purpose." And that's completely subjective and really has
15 no support in the '624 patent. And we'll talk about it a little bit more in
16 detail, but it's just plain wrong legally as well.

17 And we actually inquired with Dr. McCarthy about this. If we could
18 turn to slide 34. We actually asked him here, this is Dr. McCarthy, "So the
19 definition of primary purpose depends on the person who made the film's --

20 JUDGE RANGE: This is Judge Range.

21 MR. LEVY: -- intention for that layer?"

22 JUDGE RANGE: This is Judge Range. For clarity of record, this is
23 Petitioner's slide 34.

24 MR. LEVY: Yeah. Your Honor, my apologies there. I should have
25 said Petitioner's.

26 JUDGE RANGE: No problem. No problem.

1 MR. LEVY: And we'll be going through primarily Petitioner's slides
2 at this point. So if I don't say a number, it'll be Petitioner's slides.

3 JUDGE RANGE: That works.

4 MR. LEVY: And we asked him here and he said, well, it's "not the
5 person who made the film, but the inventor who designed" it. And that
6 would lead to some really absurd situations, and it's just not grounded in
7 law. Well, we'll also see how their expert, as we get through this hearing,
8 couldn't explain at what point a layer becomes a tie layer under his
9 definition.

10 So, backing up, the key issue, at least in Petitioner's mind for today,
11 is how do we interpret the plain and ordinary meaning of tie layer? Is it
12 Petitioner's plain and ordinary meaning straight from the specification as
13 also confirmed by the prior art or Patent Owner's three-part definition, which
14 requires importation of primary purpose, which is not found in the '624
15 patent, also unsupported expert testimony, as well as a subjective
16 determination?

17 So setting that stage, I like to then transition here, talk a little bit
18 about the background and really why the original claims and the amended
19 claims of the '624 patent, why they're obvious in light of the prior art. And
20 just --

21 JUDGE KALAN: Before you transition, Mr. Levy, neither party
22 appears to be advocating for any express claim construction, at least
23 according to the structure of the briefs. So we are just being asked to look at
24 tie layer's plain and ordinary meaning, or do you have -- have you elevated
25 this to a request for claim construction?

1 MR. LEVY: Your Honor, we were thinking about that more this
2 morning. I think the situation is we've been advocating for the plain and
3 ordinary meaning. So the only way we get to a claim construction is that,
4 you know, in Patent Owner raising a dispute about whether the claim
5 limitation is met under the plain and ordinary meaning. So we weren't
6 advocating for a claim construction position at all, but we're advocating,
7 obviously, for what we think the plain ordinary meaning is at this point.

8 So with that, Your Honor, can I transition to some of the
9 background?

10 JUDGE KALAN: Please do.

11 MR. LEVY: Great. And just for a matter of clarity, what I'll focus on
12 primarily is the prior art reference, *Riis*, as well as the claims. And Dr.
13 Kilgore, he'll focus primarily on some of the amended claims in the revised
14 motion to amend with *Holzmuller*.

15 So, with that said, what I'd like to do now is go to Petitioner's slide 2
16 and just quickly provide an illustration of what the grounds are. And what
17 we'll primarily focus on today is grounds 2 and 3, with the bulk of the
18 discussion focused on the *Riis* reference.

19 If we could turn to slide 3, Petitioner's slide 3, what we see here is
20 this patent's directed towards a method for obtaining a film and a laminate.
21 And really the easiest way to understand this pattern is just the simplicity of
22 some of the structures created. What we have here, and again, this is an
23 annotated figure, we have the aggressive chemical resistant film that's within
24 the red box. And it has a base layer, a tie layer, and a contact layer, which
25 really goes to claim 1 of the '624 patent.

1 And there's also another independent claim, only two independent
2 claims. Claim 13, it talks about a laminate which, simply put, provides some
3 additional layers onto the aggressive chemical resistant film. It might be a
4 protective layer, for example.

5 Now, if we can turn to Petitioner's slide 4, what we see here is claim
6 1 of the '624 patent adjacent to that annotated version of Fig. 3. And if we
7 now go to slide 5, we've highlighted the different layers present in claim 1,
8 really color coded to the same colors indicated in Fig. 3. Now, essentially
9 what you have is a base layer, which includes aluminum, then a tie layer,
10 and a contact layer. Those are coextruded with a contact layer being a
11 cycloolefin copolymer, COC for short. And this can then be coated to the
12 base layer to form the film. Now, also, if you notice at the bottom of the
13 claim, again, a little bit small type, but the tie layer, it can also include one
14 or more layers, and may have a loading range of 7 to 20 grams per meter
15 squared.

16 So a couple other claims, just to point out, if we turn to slide 6, we
17 have Petitioner's slide 6, we have claims 8, 11, and 12 displayed next to
18 Figure 2 of the '624 patent. Now, one difference in this figure versus the
19 previous Figure 3 is that it includes a first tie layer and a second tie layer
20 next to one another. And claim 8, as we see here, it can consist of two
21 layers, whereas claims 11 and 12 really just add a bit more substance where
22 the layers can be a polyethylene layer as well as an acrylic acid layer, the
23 acrylic acid layer being ethylene acrylic acid, more commonly known as
24 EAA.

25 So then if we look next to slide 7, we see the figure we had in the
26 petition, along with claims 11 and 12, as well as the relevant portions for the

1 patent specification. And what you can see on this slide is that the tie layer,
2 it may be made or formed from EAA, an EAA layer, immediately adjacent
3 to a polyethylene layer and the polyethylene layer being immediately
4 adjacent to the COC layer. So the Figure 2 we annotated in the petition
5 shows this orientation as the EAA layer of the tie layer, that's next to the
6 aluminum layer, the aluminum base layer, and then the polyethylene layer
7 faces the contact layer, the COC. So we want to mention these claims
8 upfront, as they're quite relevant as we discuss really the prior art and also
9 the claims in the revised motion to amend.

10 And one thing just important to point out with this patent, the '624
11 patent, it claims nothing new with respect to techniques. In particular, I
12 believe, about column 13, I think lines 11–12, 11–13. It states that the film
13 may be created by a coextrusion system, generally known in the art.

14 So if we next go to slide 8, we have another quote here from Dr.
15 McCarthy, Patent Owner's expert; again, have his picture up for clarity. And
16 there's no dispute between the parties that low density polyethylene, LDPE,
17 is a type of polyethylene, and thus the PE layer in Fig. 2 from the petition as
18 what's included in the '624 patent, that can be LDPE. There's no confusion
19 about that at all.

20 So, having gone through the '624 pattern, what I'd like to do now is
21 turn to the prior art reference, the main reference, *Riis*, which we have in our
22 slide 9. And it is our position, Petitioner's position, that *Riis* expressly
23 teaches all limitations of the challenged claims, except for the claimed
24 loading ranges and melting points of the polymers. But those would have
25 been found obvious by a person of skill in the art using the compounds

1 identified in *Riis*. *Riis* identifies a number of compounds and you have some
2 sufficient information to know what those are.

3 So you also see next to it, annotated Fig. 2 of the '624 patent. And if
4 we go to slide 10, Petitioner's slide 10, we place that next to *Riis*, an example
5 as illustrated in the petition. So all of the layers of Figure 2 of the '624
6 patent, the base layer, the first tie layer, the second tie layer, and contact
7 layer, they're taught by *Riis*. You can see such at the bottom of the
8 illustration on the right. It's the exact same composition as the film in the
9 '624 patent.

10 Specifically, *Riis* teaches an aluminum layer, then an EAA layer, then
11 LDPE, then COC. And with this overview of what *Riis* is, what I like to do
12 now is apply it to the various claims of the '624 patent. And we go about
13 doing that by turning first to slide 11.

14 And slide 11, what we'll see here, and we'll put checkmarks by the
15 boxes where we believe that the limitations are met, with *Riis*, the preamble
16 of *Riis* is very clear that it provides an anti-scalping nature. We have
17 multiple blocks there. It describes the various aggressive chemical-resistant
18 properties with many of the specific chemicals listed. *Riis*, too, if you look
19 at the very bottom, it's also very clear that it provides a film.

20 If we go on to slide 12, the next portion, we see that the '624 provides
21 a base layer, *Riis* provides a barrier layer, same thing for these purposes.
22 And it further describes in *Riis* how that can be aluminum as well. And it's
23 resistant to gas and moisture as described in a '624 specification.

24 If we look at slide 13, we show how *Riis* provides a tie layer as well.
25 *Riis* says in its specification that tie layers are known as adhesive layers and
26 can be selected to promote the adherence of adjacent layers and prevent

1 undesirable delamination. *Riis* also goes on to point out that any suitable
2 number of tie or adhesive layers can be used. And furthermore, *Riis*
3 provides some key information that the tie layers may be formed for
4 members of the polyethylene family and includes explicitly in that bottom
5 box where we highlight LDPE.

6 Now, in this claim portion we're looking at here, you also have the
7 contact layer portion, which we discuss on the next slide, slide 14. Here it
8 restates that it has a contact layer and it might be may be COC. And in a
9 most preferable embodiment, the contact layer is 100 percent COC. It
10 absolutely meets that portion of that limitation as well. And we see also in
11 the bottom box there with the highlights that restates that EAA, LDPE, and
12 COC can be a coextrusion, which completely meets those limitations of the
13 claim.

14 On slide 15, next Petitioner's slide 15, we see how *Riis* points out that
15 the coextrusion is coated onto the aluminum barrier surface. And what
16 we've done here is underline an area, because this is where we do have
17 somewhat of a dispute with the Patent Owner as the Patent Owner disputes
18 that *Riis* teaches this, despite *Riis* identifying that LDPE can be a tie layer.
19 So we'll leave that --

20 JUDGE KALAN: The nature of that dispute is because, according to
21 Patent Owner, *Riis*'s tie layer is a tie layer plus a bulk layer?

22 MR. LEVY: I don't believe so, Your Honor. I believe it's that it's not
23 a tie layer. Considering that bulk layer is not included in the specification of
24 the '624 patent, I understand their position being that it's not a tie layer at all.

25 JUDGE KALAN: Thank you.

1 MR. LEVY: And this comes from the primary purpose definition,
2 which we'll get to in just a couple minutes. So, with this, what we see here
3 is, again, that dispute. So we believe it meets that limitation. We'll provide
4 more substance as to why shortly.

5 If we go to the next slide, slide 16, we also see how *Riis* allows it to
6 adhere both by *Riis* petition -- by *Riis* and also Petitioner's expert, Dr.
7 Spontak, comments about it, essentially allowing a coextrusion to cool.

8 Looking to the next element, slide 17, so, Petitioner here is of the
9 position that *Riis*, with its film of EAA, LDPE, and COC, meets the
10 limitation of the coextrusion layer consisting of the tie layer and the contact
11 layer of COC. Again, we have a dispute here because Patent Owner does
12 not agree that the LDPE layer is a tie layer. So our position is *Riis* meets
13 this limitation, so we'll check that box.

14 And finally, the last part of claim 1, we get to slide 18. And that
15 includes the limitation of the loading range of 7 to 20 grams per meter
16 squared for the tie layer. Now, what *Riis* does, it provides information about
17 the EA layer and the LDPE layer, but it provides the thicknesses, not the
18 loading ranges. But the way you get the loading range from a thickness is
19 you just simply use the density of EAA and LDPE and that's how you can
20 determine the loading range. And Petitioner's expert, Dr. Spontak, he does
21 this with the EAA and LDPE and we see a loading range of about 15 grams
22 per meter squared, which is well within the limits of this claim limitation.
23 So, notably, Dr. Spontak's calculations, they're undisputed and his math was
24 never challenged.

25 So if we want to talk about some of the other aspects of the
26 obviousness here, we go to slide 19 and quickly go through that an artisan

1 would have been motivated to simply follow the disclosure of *Riis* and just
2 recreate Example 5. And they would have had an absolutely reasonable
3 success -- expectation of success in doing so, as supported by Dr. Spontak.
4 There's not a question about that here.

5 Further, if we turn to slide 20, we also see that Dr. Spontak talks
6 about the data associated with showing that this Example 5 from *Riis* has
7 successful anti-scalping properties. Dr. Spontak also points to other prior
8 references, *Merical* and *Jester*, that also reinforced that one would have had
9 an expectation of success using COC films for such purposes.

10 And I did mention the test data. If we go to slide 21, what we see
11 here is Example 5, it's at the very bottom. This is the test data from *Riis*.
12 And I know it's small, my apologies. But the key here is that this is the
13 combination with EAA, LDPE, and COC, and it provides the best resistance
14 to drug migration outside of polyacrylonitrile, which is considered really the
15 standard. So that was the best of the examples to provide the anti-scalping
16 properties. So again, people would understand and see this reasonable
17 expectation, success, and motivation.

18 So, moving on from claim 1, let's talk quickly about some of the
19 dependent claims, and that's on slide 22. There's really no dispute about the
20 melting points here. And I suggest moving directly on to the loading ranges,
21 claims 4 through 7, which are on slide 13. Again, this was simply a
22 mathematical issue here, where Dr. Spontak did the math for the specifically
23 listed constituents, with the calculated loading ranges falling within the
24 ranges specifically listed for each of these claims.

1 We see the same thing on slide 24 for claim 5, so we'll put a
2 checkmark by as well, and on slide 25 for claims 6 and 7. So, again, that's
3 essentially simple mathematics to achieve that.

4 Turning to claims 8 through 12, which are on slide 26, we see how
5 claim 8 describes two layers. Well, Example 5 of *Riis* has two layers for the
6 tie layer. That's what claim 8's pointing to. And the specification further
7 describes how it can be multilayered.

8 Claim 9 below it, it's on slide 27, and it's met by *Riis* as it describes
9 coating the aluminum foil with the coextrusion. It's a clear statement from
10 *Riis* itself.

11 And I think just as a matter of speed, we can handle claims 10, 11,
12 and 12 together on the next slide 28, as what we have here are, the tie layer
13 has to be an acrylic acid layer and/or polyethylene layer. And claim 12 just
14 provides a limitation of EAA. So Example 5, again from *Riis*, meets this yet
15 again and it's clear that LDPE is a polyethylene and that EAA is ethylene
16 with acrylic acid.

17 So, finally, we get to the last claim, claim 13, on slide 29. And it's
18 virtually the same thing as claim 1, but it's a laminate comprising an
19 aggressive chemical-resistant film, with the body of the claim having all the
20 same aspects, essentially as what we went through in claim 1. *Riis* also
21 provides that additional layers can be used and described how it can be in
22 laminate, so all the same elements are met as how I previously described
23 them, with some of the disputed issues, again, still underlined to discuss. So
24 that was all ground 2 as far as using *Riis* and/or obviousness type projection.

25 I think we can quickly go to ground 3 because a lot of the same
26 analysis applies, and, before we talk about the actual dispute, about

1 essentially tie layer. So moving to slide 30, we see that ground 3, it provides
2 *Riis*, *Wypych*, and *Tatarka*.

3 And on slide 31, we just characterize this for the Board. You know,
4 *Riis* in ground 2 discloses commercial examples of polymers. These
5 polymers are able to make the film. You know what these polymers are.
6 What ground 3 does, it provides *Wypych* and *Tatarka* to provide the actual
7 specific properties and characteristics for making the film with some of these
8 claims.

9 So, for example, the loading ranges we had earlier, *Wypych* explicitly
10 teaches the density ranges for these commercially available polymers listed
11 in *Riis*, as well as identifies the manufacturers. You know, *Wypych* also
12 provides the melting point of EAA and *Tatarka* provides the melting point
13 of COC, which we obviously use in our petition with respect to dependent
14 claim 2, that describes a variation between the melting points. So those
15 elements are met and there really is not any difference in analysis other than
16 how we add these two extra references to be very explicit in providing this
17 additional information about the materials.

18 So with that out of the way, I'd like to turn to the approach Patent
19 Owner did and really how they attempted to import a primary purpose
20 limitation into, you know, really what should be the plain and ordinary
21 meaning of tie layer. If we look at slide 32, we see again Dr. McCarthy,
22 Patent Owner's expert. You know, he looks at Example 5 in *Riis*, and what
23 he does is states that LDPE having a thickness of 0.65 mils is a bulk layer
24 and that that is its primary purpose, with no further citation or scientific
25 rationale applied. There is no support provided by him about this primary

1 purpose definition. And importantly, there's nothing in the '624 patent that
2 points one to a primary purpose.

3 Now, normally we're dealing with a situation where someone's trying
4 to import limitations from the specification itself, but here we have the
5 Patent Owner goes a step further, takes a limitation that's not even present in
6 the specification. If we go to slide 34, we asked him about this concept as,
7 you know, his position to a certain extent kept changing. And he said the
8 primary purpose is determined by the inventor who designs the film. I
9 mentioned that at the very start. Well, this is completely arbitrary and it's
10 based on the subjective intent. So we have a situation where it's subjective
11 and we should be considering what a POSITA would think objectively as
12 well. And there's no telling what an inventor would say regarding various
13 aspects here. Trying to base it on subjective intent just is non-workable,
14 especially when you're thinking about the plain and ordinary meaning and
15 you have explicit disclosure in the specification.

16 So I mentioned at the start, too, we asked him about the '624 patent.
17 The question was asked if the plain and ordinary meaning of tie layer would
18 be a tie layer that provides sufficient adhesion between the base layer and
19 the coextrusion layer. And he agreed with this. If we go to slide -- I think
20 we're at slide 35, his position now, though, is completely subjective at this
21 point. We asked him about LDPE. Would it be suitable as a thermoplastic
22 layer for a tie layer? He says it wouldn't be suitable in *Riis*, but it was
23 possibly suitable for the '624 patent.

24 But if we look at slide 42, we see the disclosure in *Riis*. And *Riis*
25 says that the tie layer can be LDPE and that even if it could be considered a
26 bulk layer, which, again, is absent from the '624 patent, polyolefin bulk

1 layers can be tie layers. That last sentence, the bottom box, is right after the
2 discussion of polyolefin bulk layers. There's an important reason why they
3 have that, because it can be a tie layer, but Dr. McCarthy ignores this.

4 And if we look at slide 43, we know that a prior art reference here, it
5 has to be relied on for all it teaches. And we just pointed out exactly how
6 *Riis* shows that LDPE can be a tie layer.

7 Now, if we look at slide 46, what we do see Dr. McCarthy admit,
8 though, in *Riis*'s Example 5, that the LDP layer, it does adhere to the
9 adjacent layers, it adheres to layers on each side. And, you know, circling
10 back, stepping back for a second, if we look at slide 39 here, what we see is
11 the simple disclosures from the '624 patent and *Riis* about tie layers. All a
12 tie layer has to do is provide sufficient adhesion as described in the '624
13 pattern. And for *Riis*, it just has to promote the adhesion of that layer to
14 another surface. We don't need to go beyond this intrinsic evidence.

15 And if we step back for a second more, again, nowhere in the '624
16 patent is a primary purpose discussed. And we have to remember, too, that
17 the '624 patent doesn't mention bulk layers at all. That's not a consideration
18 or any disclosure whatsoever in that patent. *Riis* does say you can have a
19 bulk layer, but, again, as pointed out earlier, provides that polyolefin bulk
20 layers, polyolefin being a polyethylene, which includes LDPE, that can also
21 be a tie layer.

22 JUDGE KALAN: Can I ask you about this sentence in the '624 patent
23 following the sentence you've highlighted on your slide 39, where it says,
24 "The tie layer may give melt strength and support the coextrusion coating of
25 both the tie layer and the contact layer"? What's the nature of that support in
26 your reading of that sentence?

1 MR. LEVY: So, Your Honor, that's a good question. I think -- I like
2 that for multiple reasons. The first is it points out that you don't have this
3 mutual exclusivity about what a layer can be. A layer can provide other
4 qualities as well. What they're pointing to with this sentence is the tie layer
5 can also give melt strength and provide support, some type, I presume from
6 reading it, some type of physical support. So it's not a situation where
7 anywhere in the '624 patent it says, well, if it provides more of one property
8 than another, it changes what the layer is. It defines what tie layer is. It's
9 selected to provide sufficient adhesion, but that layer can also provide other
10 physical attributes as well.

11 So, with that said, we're at slide 39, if we turn to slide 41, this is what
12 you're getting at, Your Honor, about how the tie layer may provide for
13 multiple functionalities. So this whole aspect here is also supported by Dr.
14 Spontak where, we'll get to some of his quotes, he was very clear that such
15 was provided as well.

16 One point to make as well, LDPE and EAA have long been
17 recognized as being tie layers. If we quickly go to slide 47, I won't go
18 through each of the references, but *Merical*, *Morris*, and also *Liu* identify
19 films using LDPE and EAA, all prior art references, as tie layers for
20 different laminations, different extrusions. This was not something new
21 having these two together whatsoever.

22 And if we switch gears a little bit about Patent Owner's argument,
23 let's go to slide 51. Patent Owner tries to characterize *Riis* as teaching away,
24 but that's just wrong. There's no criticism, no discreditation, no
25 discouragement in *Riis*. And a key point here is that just because there may
26 be preferred embodiments, it does not mean that there's a teaching away.

1 And if we look at slide 48, what we see is that all Patent Owner relies
2 on are preferences, preferred embodiments, and they rely on preferred
3 embodiments regarding the thicknesses. And they fail to appreciate *Riis* for
4 all that it teaches, which you see below, *Riis* provides for much more.

5 And just to sum it up, if we turn the slide 52, what we see here is that
6 case law informs us that preferred embodiments, they do not constitute a
7 teaching away from a broader disclosure. There is no substance to this
8 teaching away argument.

9 And unless Your Honors have any questions regarding, I'd like to
10 move to some aspects about the reversed -- about the revised motion to
11 amend.

12 Okay, so I'll turn to slide 65. And what we see are three different
13 grounds on slide 66. You still see the *Riis* reference, *Wypych*, *Riis*, *Wypych*,
14 and *Holzmuller*, and then also *Riis*, *Wypych*, and *Rivers*.

15 Turning to slide 67, I think it's helpful to map out some of these
16 claims. We look at substitute claim 14, and all that it includes regarding
17 new amendments is that the base layer consists of aluminum and the tie layer
18 comprises a first and second layer. Regarding the amendments here,
19 considering aluminum, let's turn to slide 56. And this is the preliminary
20 guidance provided by the Board here. And what it points out is that the
21 Board agreed with Petitioner as far as obviousness regarding the aluminum
22 aspect, and Patent Owner has not advanced any new arguments since this
23 preliminary guidance as to this issue, and it would, frankly, be procedurally
24 improper for them to do so.

25 Now, if we look back at the amendments, we turn to slide 68. What
26 we see, the rest of the amendments with claim 14 is that all it is is original

1 claim 8 incorporated into claim 1. We've already been through that. There
2 is nothing that's non-obvious about this.

3 And just to, you know, put a bow on it, if we look at slide 71, we see
4 that *Riis* again clearly discloses a tie layer having a first and second layer,
5 and it meets all those limitations as well. There's nothing different about
6 amended claim 14.

7 Turning to slide 72, what we see with claim 15 is it is a restatement
8 of original claim 4, and it's obvious for the reasons that we've already
9 discussed. There's no reason here to go into more detail unless Your Honors
10 would like more discussion on it.

11 For slide 73, the next slide, we see substitute claim 20. All it is is a
12 restatement here of original claim 9, and is also obvious for the reasons that
13 we previously discussed.

14 On the slide 74, the next slide, we have substitute claim 21. And here
15 what it is, it provides EAA and polyethylene, but it's also obvious, as *Riis*
16 discloses both of these as you see in the box there. There's, again, nothing
17 here that lends itself to non-obviousness.

18 For substitute claim 22, that is on -- thank you, Mark, the next slide --
19 what we see here is that they provide this aspect of a patch that. the '624
20 patent, the claims can have here. But *Riis* also discloses that you can have a
21 transdermal patch, as you see on that left box at the top, and it provides
22 ranges as well that overlap for the limit of chemical migration. So again,
23 here's a situation, too, where this revised claim has nothing that's not
24 obvious.

1 Turning to slide 76, which is substitute claim 23, what we see here is
2 it restates original claim 12. And again, obvious from what we discussed
3 previously.

4 The last claim I'll discuss here is on slide 77, and that's substitute
5 claim 24. It's a little bit more complex, but in understanding what -- how the
6 original case was written, it makes sense. Substitute claim 24 is styled like
7 original claim 13, where it provides for a laminate in addition to just the
8 film, but it contains the limitations of substitute claim 14, or original claim
9 13 contained the limitations of claim 1. So here again, we have this obvious
10 for the same reasons I previously discussed earlier, and is obviously
11 contained in our briefs.

12 So, with that said, I'd like to open the floor if there's any further
13 questions about either Petitioner's position with regard to tie layer or
14 anything else, or alternatively regarding Patent Owner's position regarding
15 tie layer or any other aspect. Otherwise, I'll turn over Dr. Kilgore to
16 describe -- or discuss substitute claim 16, 17, 18 with respect to *Holzmuller*.

17 JUDGE KALAN: Question regarding the position you're taking on
18 indefiniteness, and also the Barex, I didn't see that in your slides. Are you
19 standing on your briefs for those arguments?

20 MR. LEVY: Yes, Your Honor, we'll stand our briefs in those
21 arguments.

22 JUDGE KALAN: Thank you.

23 MR. LEVY: Unless there's any additional questions, Dr. Kilgore,
24 pass it to you. I think you're -- there you are, Mark.

25 DR. KILGORE: All right, Your Honors, thank you for the
26 opportunity to be here today and take part in this oral argument. As Mr.

1 Levy mentioned, I'm going to discuss Patent Owner's substitute claims 16,
2 17, and 18 from the revised motion to amend.

3 And we will start out on slide 78, which identifies claim 16. Claims
4 16, 17, and 18 all include amendments to the claimed loading ranges, with
5 the amendments being made to one or more of the tie layers so that the
6 loading ranges of the amended claims would fall just outside of the prior art
7 ranges of *Riis*'s Example 5. However, despite these amendments, the
8 combination of *Riis*, *Wypych*, and *Holzmuller* render these claimed loading
9 ranges obvious because *Holzmuller* discloses loading ranges which overlap
10 or encompass the substitute claims.

11 Here on slide 78, we have substitute claim 16, and I've highlighted
12 the portions which are notable, which is that the entirety of the first and
13 second tie layers loading range is from 7 to 20 grams per meter squared.
14 And then claim 16 also specifically requires that each of the first and second
15 tie layers have a loading of 1 to 14 grams per meter squared. So by
16 amending the claims, as Patent Owner has, the second tie layer now has an
17 upper bound of 14 grams per meter squared, which falls just outside of the
18 prior art disclosure of 15 grams per meter squared in *Riis*'s Example 5 for
19 LDPE.

20 Going on to slide 79, here we have substitute claim 17. We have two
21 different colors here, denoting two specific points. Claim 17 actually adds a
22 little bit more on the limitations, which includes the positioning of the
23 layers. So it includes the positioning of the first layer being adjacent to the
24 base layer, or the barrier layer, which would be the aluminum foil, and then
25 the second layer is adjacent the first layer and the contact layer, or which
26 would be the COC.

1 JUDGE RANGE: This is Judge Range, Counsel.

2 DR. KILGORE: Yes.

3 JUDGE RANGE: For claim 16, so are you taking the position that a
4 person of skill in the art would modify *Riis* based on *Holzmuller* to meet the
5 lower range?

6 DR. KILGORE: Yes, sir, that is correct.

7 JUDGE RANGE: Okay. And what was the reason to modify?

8 DR. KILGORE: So, the reason to modify is based on a combination
9 of both disclosures in *Riis* and the disclosures of *Holzmuller*. So *Riis*
10 provides exemplary thicknesses in Example 5. So I will jump to -- oh,
11 excuse me. I'm going to jump to slide 92.

12 So here we provide various disclosures in *Riis*, *Riis* being the primary
13 reference, discloses the chemical-resistant film, which has a three-layer
14 coextrusion. And *Riis* does disclose exemplary thicknesses in Example 5,
15 but *Riis* is not limited to that single disclosure. Here you can see on the
16 screen, *Riis* actually states the layers of the films may have any suitable
17 thickness and even identifies anywhere from 1 to 10 mils, and then breaks
18 that further down into as little as .01 mil increments. So even *Riis* is not
19 limited to just the exemplary values of 5.

20 With respect to *Holzmuller*, which a skilled artisan would look to,
21 *Holzmuller* teaches some various aspects. One, it teaches the need to
22 balance the various thicknesses and materials of the films, and in doing that,
23 you can optimize haptic properties. You can also provide additional
24 benefits, such as increased mechanical and chemical stability.

25 So with that being said, *Holzmuller* then provides specific material
26 properties and thicknesses. And by -- so a skilled artisan looking at both

1 *Riis* and *Holzmuller* would recognize they could optimize thicknesses,
2 including the specific bonding layers or the tie layers. *Holzmuller* refers to
3 them generally as bonding layers. *Riis* refers to them as the tie layers or the
4 adhesive layers. And you can optimize these thicknesses and you can
5 achieve these desired properties that are disclosed in *Holzmuller*.

6 So we jump back to slide 78, which is -- excuse me, 79, which is
7 claim 17. So claim 17 includes the positioning of the tie layers and then also
8 again modifies or amends the loading ranges. The first tie layer having a
9 loading range of 5 to 19 grams per meter squared, and then the second
10 loading range being modified from 1 to 14. So with respect to that first tie
11 layer being from 5 to 19, that would fall just outside of *Riis*'s disclosed EAA
12 layer of 4 grams per meter squared. And then the amendment to the second
13 layer of 1 to 14 would fall just outside of *Riis*'s LDPE layer of 15 grams per
14 meter squared.

15 And then moving to Petitioner's slide 80, here we have claim 18.
16 With substitute claim 18, this requires the first and second tie layer each
17 having a loading range of 7 to 20 grams per meter squared. So, therefore,
18 the first tie layer loading range is outside of *Riis*'s disclosed 4 grams per
19 meter squared, the EAA loading range, but would still fall within the 15
20 grams per meter squared of LDPE.

21 Moving to slide 82, we can see here on the left we have the Figure 2
22 of *Holzmuller*. And then we also have paragraph 8 from the specification of
23 *Holzmuller*. And so at paragraph 8, *Holzmuller* provides a very high level
24 summary of its disclosure, which we think is relevant. This includes that a
25 multilayer film includes a central barrier layer, which is outlined in red on
26 the left, and that is using a aluminum barrier layer, and then that is made into

1 films, such as packaging products and can be made into tubes, all of these
2 having improved barrier properties. And notably, it also allows for thinner
3 layers to be used and then specifically identifies benefits to the production of
4 the film and includes better haptic and environmental compatibility.

5 We can take a closer look at Figure 2 at slide 83. So here we --
6 starting with that central barrier layer that I mentioned, which is highlighted
7 in red, this is disclosed to consist of aluminum foil in *Holzmuller*, just like
8 *Riis*, also just like the '624 patent. On either side of the central barrier layer,
9 which is labeled as 40 on the top and then 40 prime on the bottom, these are
10 intermediate label -- excuse me, intermediate layers, and each of these layers
11 for Figure 2 includes two sublayers. These two sublayers are referred to in
12 *Holzmuller* as bonding layers. A first bonding layer highlighted in blue,
13 which is annotated as 43, and then the second bonding layer highlighted in
14 purple, which is number -- which is annotated as 45.

15 Finally, the exterior side on the top and the bottom which are labeled
16 as item 30. This includes a biaxially oriented polymer, and that basically
17 acts as an exterior or contact layer, depending on which side of the film it is
18 on.

19 JUDGE KALAN: There's a symmetry in *Holzmuller* here that isn't
20 necessarily present in the *Riis* Example 5 that you rely on. The *Riis*
21 Example 5, I believe, is annotated to show a bulk layer, that top purple layer
22 in your annotated version on the slide 85 at the right. Does that affect your
23 analysis?

24 DR. KILGORE: No, Your Honor, because the main purpose for the
25 inclusion of *Holzmuller* is modification and optimization of the EAA and the
26 LDPE layers and modifying the thicknesses of those layers. Specifically,

1 *Holzmuller* teaches modifying those layers with the various thicknesses to
2 generate the improved properties. So in terms of the exterior layer, we will
3 note *Holzmuller* does not contemplate *Wright* (phonetic) COC. *Holzmuller*
4 was, I think, filed in 2007 or 2008. So that was quite a bit before COC was
5 really being recognized as a possible replacement for Barex. At the time,
6 Barex was, you know, sort of, as we mentioned, that polyacrylonitrile, pretty
7 much the standard.

8 So there are additional layers, as you mentioned, in terms of what
9 *Riis* discloses. But what we rely on for *Holzmuller* does not really affect that
10 analysis because we're looking at, as we've noted here, the colored layers
11 together.

12 JUDGE KALAN: Thank you. And a related question, I think Patent
13 Owner takes a position that *Holzmuller's* films are structurally, functionally,
14 polymerically different than *Riis's*. Could you weigh in on that, please?

15 DR. KILGORE: Sure. So, you know, our position and the slide
16 shows that here, they are -- the films are structurally very similar in terms of
17 the centralized aluminum foil barrier layer. You then have two bonding
18 layers on either side of that barrier layer. And then you have sort of a -- in
19 *Riis*, you do have the PEI primer layer on the top next to the exterior layer,
20 and then on the bottom, the contact layer. *Holzmuller* discusses how you
21 would make the film first and then that can be, during post-processing,
22 formed into a tube. So that's why the top layer and the bottom layer tend to
23 be the same versus *Riis* has differences there.

24 However, with that being said, the structure in terms of the
25 centralized portion as well as the barrier layer and the bonding layers are the
26 same. They also provide for the same actual polymers, EAA and LDPE.

1 So if I go here to slide 86, so *Holzmuller* provides the tables for the
2 different materials. First bonding layer includes EAA. Second bonding
3 layer includes polyethylenes, which we know, as stated earlier, includes
4 LDPE. And then provides for the various thicknesses in another table. So
5 structurally, they're similar. Polymerically, they actually include the same
6 polymers for first bonding layer, second bonding layer, and then also the
7 barrier layer being aluminum foil.

8 And then their function is also very similar. So the function is to
9 create chemically resistant films that limit or reduce diffusion of an
10 aggressive film -- excuse me, aggressive substance or some other sort of
11 chemical substance through the film from the interior to the exterior. So,
12 you know, from our position, all of these are very similar structurally,
13 polymerically, and functionally.

14 And from Patent Owner's standpoint, we would encourage you to
15 look at their reply. The majority of their reply is based merely on Patent
16 Owner's expert's opinions with very little substance in terms of pointing to or
17 corroborating his opinions with prior art or pointing to any even experiences
18 he has had himself. So we believe that from that standpoint, they don't
19 really show why these are polymerically or structurally different.

20 I will note that on that point, Patent Owner points to *Holzmuller*
21 saying that they use different extrusion techniques. And *Holzmuller* does
22 include a couple of different extrusion techniques. They talk about joint
23 extrusion, and that is one option for the bonding layers. But then *Holzmuller*
24 also specifically states in paragraphs 24 and 26 that the bonding layers or the
25 intermediate layers can be coextruded. So again, even the extrusion
26 processes are similar.

1 I'll also point out one other similarity, which is the biaxially oriented
2 outer layers of *Holzmuller*. The '624 patent actually contemplates that
3 certain exterior layers, even in the '624 patent, may be biaxially oriented. So
4 even then, it's well understood by those skilled in the art coextrusion is, you
5 know, a well-known process. These biaxially oriented polymers were
6 known as good layers for exterior surfaces because they're strong. And so
7 all of that sort of comes together to demonstrate that these films between
8 *Riis* and *Holzmuller* are similar. And that also leads to a reasonable
9 expectation of success in terms of a skilled artisan wanting to modify or
10 combine these pieces of prior art.

11 JUDGE KALAN: Thank you.

12 DR. KILGORE: Your Honors, I'm now going to jump ahead to -- or,
13 yeah, slide 87. Excuse me, I'm sorry. So here -- so we've talked about
14 LDPE with the -- or, excuse me, we've talked about *Holzmuller* providing
15 the various materials and the various thicknesses. And we've also identified
16 *Riis*'s Example 5, as well as other disclosures in *Riis* for the thicknesses.
17 And so here on slide 87, we provide the calculations to go from *Holzmuller*'s
18 disclosures of thicknesses to the actual loading benches.

19 So here, when you do the calculations, *Holzmuller* provides for a
20 broad range and then a preferred range, and then a especially preferred
21 range. And so if you do the calculations for LDPE, the loading ranges in
22 *Holzmuller* would be 4.6 to 130 grams per meter squared on the broadest
23 range, down to an especially preferable range of 9.2 to 46.4. So that was for
24 LDPE. You also see a very similar range for EAA, which is in the bottom
25 box, again 4.6 to 134 grams per meter squared at the broadest range, and
26 then especially preferred range of 9.2 to 48 grams per meter squared.

1 So now if we look at claim 16, we have a loading range of the first
2 layer and second layer being 1 to 14 grams per meter squared. So, again, on
3 the left, *Riis* and *Wypych* disclose EAA and LDPE. We have the loading
4 ranges there from Example 5. If you then do -- if you then look at the
5 combination with *Holzmuller*, those new ranges include 9.2 to 48 grams per
6 meter squared for EAA, 9.2 to 46 grams per meter squared for LDPE, and
7 those also, we'll point out, are the especially preferred ranges. So those
8 overlap with the 1 to 14 grams per meter squared of claim 16, and also the
9 total of each of the EAA and LDPE, when combined together, fall within the
10 7 to 20 grams per meter squared.

11 We see the same thing for claim 17 here on slide 90. Again, the first
12 layer is a tie layer in a range of 5 to 19, second layer 1 to 14 grams per meter
13 squared. So again, looking at *Holzmuller*, even the especially preferred
14 ranges overlap with the claim -- with the amended claimed ranges of claim
15 17. If you look to the broader ranges, that's an even greater overlap. And
16 again, the total of the EAA and LDPE at 18.4 grams per meter squared of the
17 especially preferred range falls within 7 to 20. If you look at the broader
18 range, that also would fall into the -- or overlap with the amended range of
19 claim 17 for the entirety of the tie layer.

20 And again, for claim 18, we see the same thing, first layer and second
21 layer being 7 to 20 grams per meter squared. At the bottom right, we have
22 *Holzmuller*, which overlaps those ranges.

23 So from that standpoint, claims 16, 17, and 18 are all taught, or the
24 ranges are all taught -- or the loading ranges are all taught by *Holzmuller*.
25 And there has been no dispute from Patent Owner that the claimed ranges do
26 overlap. Because of that, you know, based on *In re Wertheim*, there is a

1 prima facie case of obviousness when there are overlapping ranges. We
2 have also noted in our briefing that Patent Owner has failed to provide any
3 real sufficient evidence of criticality.

4 So if I jump to slide 93, we will point out that when we highlighted
5 that there was no sort of criticality identified with the loading ranges of the
6 '624 patent, as well as the overlap found in the prior art, Patent Owner
7 pointed to a couple of different areas of the '624 patent that they identified as
8 evidence of unexpected results. However, as we can see here on the bottom
9 left and then the two boxes on the right, what the Patent Owner points to are
10 just broad statements of, you know, unexpected results that, for instance, in
11 the bottom left, you could use thinner layers while maintaining overall
12 mechanical and chemical robustness of the film on the ones -- on the boxes
13 in the right. Here we're talking about specifically about unexpected results
14 in terms of being able to use the COCs, and then also in terms of
15 satisfactorily coextruding the contact layer and the together. None of these
16 actually identify specific criticality of the claimed loading ranges over the
17 prior art. The prior art overlaps or encompasses the claimed loading ranges,
18 and none of these actually exhibit any criticality that is separate from the
19 prior art loading ranges.

20 And then I will wrap up with one last point, which is and Patent
21 Owner's reply to the Petitioner's opposition to the revised motion to amend,
22 at the very end of that reply, the Patent Owner actually points to Petitioner's
23 own prosecution history, specifically pointing to the Herb declaration, for
24 evidence that tie layers generate unexpected results and using Petitioner's
25 own arguments in its own patent prosecution.

1 Specifically with respect to the Herb declaration, they are trying to
2 use the Herb declaration to point to criticality arguments made by Patent
3 Owner -- or, excuse me, Petitioner with respect to the tie layers. However, I
4 will note for the Board that during the deposition of Dr. McCarthy, his third
5 deposition, when asked whether the LDPE or the metallocene LLDPE which
6 is identified in the Herb declaration, are either one of those two tie layers,
7 Dr. McCarthy specifically argued that, no, they are not tie layers, they are
8 bulk layers. So on that point, the Patent Owner is even pointing to
9 Petitioner's own criticality statements, but yet then, at the same time, arguing
10 that they are not actually tie layers, they are bulk layers.

11 With that time, I will turn it back over to Mr. Levy unless there are
12 any questions the Board would like to ask before I wrap up.

13 JUDGE KALAN: I don't see any from my fellow Judges. You are at
14 about your hour if you'd like to wrap up.

15 MR. LEVY: I thank Your Honor. I think we'll pause here and save
16 the remaining for rebuttal.

17 JUDGE KALAN: Thank you. Mr. Getzoff, whenever you are ready
18 to begin.

19 MR. GETZOFF: Thank you, Judge. Let me just -- give me one
20 moment. Thank you, Your Honors. And may it please the Board, I'm going
21 to run through my slides similar as Mr. Levy did, which is to say I may jump
22 around a bit. I found in listening to Petitioner's argument that they followed
23 an order very similar to the order that I had planned to present anyways. But
24 I do want to make sure I zero in as best as I can so that the Board can keep
25 track of the arguments and how they compare to one another.

26 Let me share my screen. Is my share -- is my screen being shared?

1 JUDGE KALAN: I can see it. Thank you.

2 MR. GETZOFF: Great. Thank you. Okay, I think I'd like to start
3 with jumping right into slide 5. All of my slides will be the Patent Owner's
4 slide. I do have one slide that might be Petitioner's. I'll call that out if I get
5 to it. But all of my slides should be Patent Owner's slide.

6 Patent Owner's slide 5, this is the independent claim 1 of the '624
7 patent. Just to point out a couple of issues, as Mr. Levy walked through the
8 claim elements. I think there's two basis for distinguishing *Riis* from
9 independent claim 1, which we'll roll through the dependent claims. In
10 elements 4 and 5, these are closed transition terms, so they claim a tie layer
11 and contact a contact layer, but they use "consisting of." So for those
12 elements, they would exclude the use of a bulk layer.

13 And then when we get to the last claim element with the 7 to 20
14 grams per meter squared range, that distinction or that difference between
15 *Riis* and the '624 patent is, as I think Mr. Levy laid the groundwork well, is
16 it's limited to a tie layer, which could be one or more tie layers together, but
17 the loading of the tie layers has to be 7 to 20 grams per meter squared. So
18 the issue -- and again, I think Mr. Levy was correct to jump right to the
19 definition of tie layer, because that is the key limitation in the '624 patent. If
20 the disclosure in *Riis* and the layers that they are pointing to to get within the
21 range of 7 to 20 grams per meter squared or to, for elements 4 and 5, to
22 provide a disclosure which requires a disclosure of a tie layer, the disclosure
23 in *Riis* must be a tie layer and not a bulk layer. I think after you --

24 JUDGE KALAN: I have to ask you the same question I had asked
25 Petitioner's counsel. Are you asking us to do a formal claim construction or

1 just proceed with our analysis and accept a plain and ordinary meaning
2 while we review your arguments?

3 MR. GETZOFF: That's a good question. My answer is similar to Mr.
4 Levy's, which is both parties started off arguing plain and ordinary meaning.
5 As the case progressed, the parties' plain and ordinary meaning diverged to
6 the point where it starts to look more like the parties are advocating for a
7 claim construction. I'll confess that in my experience, parties start with plain
8 and ordinary meaning, but they want the court or the Board to come up with
9 a meaning for the plain and ordinary meaning that starts to look a lot like
10 claim construction.

11 So I don't have a specific position to tell the Board that we think this
12 requires claim construction. I will say neither party treated it as such. We
13 both proceeded as if we -- our respective plain and ordinary meanings are
14 what they are and that we are correct. But I do recognize that when the
15 parties start to really disagree on what the plain and ordinary meaning is, and
16 start to argue the intrinsic evidence to support that plain and ordinary
17 meaning, it starts to look a lot like claim construction.

18 JUDGE KALAN: Thank you for the clarification.

19 MR. GETZOFF: So, again, I think that this case in large part hinges
20 on whether the disclosure in *Riis* is disclosing a tie layer when it refers to the
21 LDPE layer or whether its disclosure of the LDPE layer is a bulk layer.
22 Much of my presentation will be getting into the details on that distinction,
23 and it seems like the parties' positions reflected both in the briefing and the
24 argument today hinges on that distinction.

25 With that, let me jump up to slide 26. So this is the Petitioner's
26 annotation and exhibit. I think Mr. Levy showed the same. It comes out of

1 the briefing in this case, he showed the same exhibit. In the Petitioner's urge
2 (phonetic) definition, again, we are focused on the three layers that are
3 interior to the aluminum foil. So you see that the aluminum foil layer is
4 identified as the base layer. And then we've got the aggressive chemical-
5 resistant film, which is a three-layer coextrusion. So the Petitioner argues,
6 as it must, that the LDPE layer is a tie layer. That is the only way they are
7 able to argue a disclosure from *Riis* that would render the '624 original
8 claims obvious. If the LDPE layer is a bulk layer and not a tie layer, then
9 they lose that argument. So this really hinges on when *Riis* discloses LDPE
10 as being part of this coextrusion layer in between the EAA, which we agree
11 is a tie layer, and the COC, which everyone agrees is a contact layer. Is that
12 middle LDPE layer a bulk layer or a tie layer?

13 Let me start with the definition of bulk layer. This is not a definition
14 that Petitioner addressed in their argument, but I do want to spend a few
15 minutes. I think it's important to note that in *Riis*, so in the disclosure that
16 they rely on for all their arguments on this particular issue, *Riis* has two
17 different express definitions in *Riis*, and they are non-overlapping. So when
18 *Riis* defines a bulk layer, it does it expressly, and then when *Riis* defines a tie
19 layer, it does it expressly. And the definitions between tie and bulk as
20 defined by *Riis* and taught by *Riis* don't overlap.

21 The Patent Owner's definition of bulk layer comes -- it starts straight
22 from *Riis*. Bulk adds, it adds stiffness, it adds certain specific
23 functionalities, such as stiffness, additional heat sealability, it improves the
24 machinability, it improves the cost, because you can use less COC if you add
25 a LDPE layer to it. That is all explained in *Riis*.

1 Petitioner's definition of bulk would essentially render bulk
2 meaningless in any reference. Dr. Spontak essentially opined that any layer
3 within any multilayer film can be termed a bulk layer. So he has proffered a
4 definition of bulk layer that would essentially read the word "bulk" out of
5 any meaningful definition, since any layer can be a bulk layer under Dr.
6 Spontak's view. It also disagrees with what *Riis* said in terms of the specific
7 functionality that one would find and that a bulk layer requires. And I do
8 want to touch on Patent Owner's definition of bulk layer, and I'm going to
9 discuss this in combination with our definition of tie layer.

10 So Patent Owner's definition of bulk layer is a three-part definition,
11 as is our definition of tie layer. And we do use the primary purpose --
12 pardon me, we do use --

13 JUDGE KALAN: Let me go back to the previous slide where you
14 had the definitions. Just to confirm again, you're not asking us to formally
15 construe bulk layer on this record, is that correct?

16 MR. GETZOFF: We're not. We think that our definition is the plain
17 and ordinary meaning as would be understood by a person of ordinary skill.

18 JUDGE RANGE: This is Judge Range. It seems you're taking -- are
19 you taking the position that bulk layer and tie layer are mutually exclusive
20 terms, meaning that a tie layer is never a bulk layer and a bulk layer is never
21 a tie layer?

22 MR. GETZOFF: In terms of their -- in terms of their definition, they
23 are -- they are completely -- they serve two completely different functions.
24 So when you look at the functionality, the material characteristics of a bulk
25 layer, there's no overlap between that definition and the material
26 functionality, the material characteristics of a tie layer.

1 JUDGE KALAN: In the language I had asked Petitioner's counsel
2 about earlier, it indicated the tie layer could also provide support. But that's
3 not mutually exclusive with the bulk layer, correct?

4 MR. GETZOFF: So that gets to the issue of the primary purpose.
5 And let me jump into that, because that --

6 JUDGE KALAN: And before you jump --

7 MR. GETZOFF: Yes.

8 JUDGE KALAN: -- I had one more question about this slide.

9 MR. GETZOFF: Yes.

10 JUDGE KALAN: Where in your papers is this definition of bulk
11 layer? And you can come back to that if you need to locate the citation.

12 MR. GETZOFF: Okay, yeah, let me come back. I believe that's in
13 our sur-reply. So sorry, I'm not meaning to push that button.

14 Okay. So I want to just briefly move to tie layer and then I'll move to
15 primary purpose. So *Riis* defines tie layer. Again, tie layer is for adhesive
16 purposes. It's to prevent undesirable lamination. So if you have lamination
17 between a layer, you know it's not a tie layer. That's one of the material
18 objective requirements of *Riis* is a tie layer. It prevents delamination. It
19 promotes sufficient adhesion between two layers. I think the word
20 "sufficient" in this context means it doesn't delaminate.

21 This is a comparison of the two tie layers. Again, our three part plain
22 and ordinary definition incorporates the definition from *Riis* in terms of
23 what, objectively, a tie layer must do, but then adds the primary purpose,
24 which I'll get to in a moment.

25 Just a note on Petitioner's definition. Petitioner's definition, like they
26 did with bulk layer, Petitioner's definition would apply to every layer in the

1 film. So if you have a workable film, those films are adhering to each other,
2 in some instances without the need for a tie layer. But under Petitioner's
3 definition, everything is a tie layer if they are sufficiently adhering to each
4 other. So like Petitioner did with bulk layer, they have defined -- or they
5 have proposed a plain and ordinary meaning of tie layer that reads the word
6 out of any multilayer film. Because under Petitioner's definition, everything
7 is a bulk layer and every layer is also a tie layer. Again, we think that
8 violates -- or it's contradicted by the expressed teachings in *Riis* upon which
9 they rely, and it also violates common sense, as taught by *Riis* and as
10 admitted certainly upon by Dr. McCarthy, but admitted by Dr. Spontak.

11 Each of these layers is in a multilayer film for a reason. They are
12 selected because they have certain properties that serve a specific purpose to
13 make that multilayer film work. And I think that dovetails with why
14 primary purpose is the appropriate aspect of the plain and ordinary meaning.

15 And to be clear, Petitioner spent a lot of time arguing that we
16 basically made this up, that primary purpose doesn't come from anywhere
17 except the Patent Owner's own argument. The fact is, it was Petitioner's
18 expert, Dr. Spontak, in his deposition, who extensively explained the
19 concept of primary purpose. And what he explained is all of these layers can
20 have secondary purposes. So, for example, a particular bulking layer may
21 have adhesive qualities and, conversely, a tie layer may provide some
22 support, but that's not why it's there. It's there to serve a primary -- one
23 primary purpose in the layer. That is why that particular layer was chosen
24 by the inventor --

25 JUDGE RANGE: Counsel?

26 MR. GETZOFF: Yes.

1 JUDGE RANGE: How would you respond to a Petitioner's argument
2 that purpose is subjective and it's in the mind of whoever's creating the
3 purpose? Like different people may use one physical object for different
4 purposes in mind.

5 MR. GETZOFF: Yeah, good question. So the answer is, first, it's
6 viewed by a person of ordinary skill in the art. So certainly an inventor is
7 considered a person of ordinary skill. But I think it's not a subjective
8 determination from either the inventor or any one person. It's viewed as all
9 plain and ordinary meanings are from the hypothetical person of ordinary
10 skill. That doesn't make it subjective.

11 We believe that primary purpose can be objectively determined based
12 on the context and the understanding as to why that particular layer is within
13 a multilayer film. When one looks at the layers in a multilayer film -- and
14 when I say one, I actually mean a POSITA -- they will know why that
15 particular layer is there. What is the primary purpose for the inclusion of
16 that layer in terms of making the overall multilayer film a viable film? This
17 is what Dr. Spontak explained.

18 He further explained that the individual layers may have secondary
19 attributes, and he described those as a plus. So if it's also serving some other
20 secondary purpose, that's great. He called that a plus. We agree with that.
21 But there is a primary purpose that one can identify, and by one, again, I
22 mean a POSITA. When you examine the specific context of where that
23 layer is within a multilayered film, what is it made of? What is its loading?
24 What is it surrounded by? In other words, what are the layers and the
25 characteristics of the layers on either side of it? When you know those, per

1 those parameters, the primary purpose of any layer in a film is known and
2 becomes apparent to one of ordinary skill in the art.

3 So we believe it's an objective. It's an objective test based on the
4 context of looking at the specific layer in question. And I think a corollary
5 of that is one that's skilled in the art can't simply identify a particular
6 material and tell you, well, would that be a bulk layer or a tie layer in a
7 multilayer film? They may not know. They would need to see, and this is
8 true for LDPE. I think all of the references, that's the last sentence of
9 paragraph 135 in *Riis*, that's in *Morris*, that's also in *Holzmuller*, that LDPE
10 can serve as a tie layer. It's used, though, in *Riis*, which I'll get to in a
11 moment, as a bulk layer. We think that the evidence is overwhelming, based
12 on *Riis* itself, that the LDPE layer that's coextruded with the EAA layer and
13 the COC layer, it's clearly a bulk layer in the *Riis* disclosure.

14 JUDGE RANGE: This is Judge Range again. It seems that the most
15 important thing is going to be what is a tie layer relative to the '624 patent
16 and what is a bulk layer relative to the '624 patent? Sort of regardless. I
17 mean, *Riis*'s labels matter, but what the patent means matters more. And so I
18 was wondering what you would point to in the '624 patent to best support
19 this notion of primary purpose definitions you're proposing.

20 MR. GETZOFF: I want to make sure I answer your question directly,
21 Judge Range. Can I put a pin in that and give you some citations without
22 spending my time finding it? I do want to say, though, that --

23 JUDGE RANGE: Yeah, that's fine.

24 MR. GETZOFF: To be clear, so in the '624 patent, the '624 patent
25 does not claim a bulk layer, it only claims tie layers. So there's no

1 discussion in the '624 patent of both layers. But there is significant
2 discussion on tie layers.

3 And let me be clear, though, the primary purpose, that's a Dr. Spontak
4 word. We got that phrase from Dr. Spontak's explanation of how these
5 layers can be deemed to serve a primary purpose even when they serve a
6 secondary purpose. So, "primary purpose," that phrase is not in the '624
7 patent.

8 JUDGE KALAN: Is there any -- and to put another pin in another
9 portion of the record, is there any place beside -- and thank you for pointing
10 to Dr. Spontak's testimony. That's very helpful here. But besides his
11 testimony and whatever you're going to point to in the '624 patent, are there
12 any other tests or portions of other records where this primary purpose is set
13 forth as effectively a test or a standard when coming up with these sorts of
14 films?

15 MR. GETZOFF: I would -- not expressly, Your Honor, but when you
16 think about these layers and these multilayered films, and I think the reason
17 that Dr. Spontak is correct, is that all of these layers have to work together.
18 Like this is not a mechanical arts where you can plug and play different
19 layers and have expected results in, say, like a set of gears or a machine.
20 There are a number of characteristics that have to come together in the right
21 way to have a robust, viable, chemical resistant film, and that's undisputed.
22 That's in all of both the '624 patent and in all the references cited.

23 So I think primary purpose is a way to capture the idea that many of
24 these layers have ancillary purposes for being there, or that they serve in the
25 function of the overall film, but they are serving a particular primary purpose
26 which explains their existence in that location, at that loading range in that

1 particular film. So, for example, if you took out a tie -- if something is
2 defined as a tie layer and you take it out of the film, and its primary purpose
3 was as a tie layer, it may have had some secondary purposes as a bulk layer,
4 but it's the primary purpose that you just lost by taking it out that is going to
5 cause the film to fail.

6 So when a person skilled in the art are assembling the layers together,
7 and whether they have a reasonable expectation of success in changing the
8 thickness or loading range or changing the material properties of a particular
9 layer or changing the manufacturing process, you have to understand, the
10 person of ordinary skill has to understand why that particular layer is there in
11 the first place. That's what primary purpose captures.

12 I mean, for example, in a banana bread recipe, lots of ingredients
13 coming together to form a banana bread, each of those ingredients has a
14 primary purpose. So say the flour is for bulking, the sugar is for sweetness,
15 the banana is for flavoring. The banana also adds some sweetness, it also
16 adds some bulking, but that's not why it's there. Its primary purpose is
17 flavoring. The sugar may add some secondary bulking properties. Again,
18 that's not why it's there. Its primary purpose is as the sweetener. So when
19 we start arguing, would it have been obvious to one of ordinary skill to
20 experiment or make changes or look to other ranges from other references, if
21 they don't understand the primary purpose for what each of those layers are
22 doing, they're lost. They would not -- just as a baker, if they want to swap
23 out some ingredients and they want to use something instead of flour, they
24 need to understand that flour -- that the primary purpose of flour is bulking,
25 so you better substitute it with something that is going to be substitute for
26 the primary purpose. Yes, it's going to have some secondary purposes, but

1 that's not why it's there. And that's not going to be helpful for one skilled in
2 the art when we start talking about making changes to thickness or loading
3 ranges or material characteristics or materials on these particular layers in
4 the multilayer film.

5 Let me move to the evidence in *Riis* that the .65 LDPE layer is a bulk
6 layer and not a tie layer. So *Riis*, this is the generalized description. These
7 are -- this is Patent Owner's annotations for the different layers of *Riis*.

8 And then moving to slide 34. So this is claim 18, which tracks
9 Example 5. So claim 18 corresponds to the generalized film that we just
10 saw. It expressly calls the polyolefin layer a bulk layer as the identification
11 and definition, which then corresponds with how *Riis* defined bulk layer in
12 the specification. So this is certainly a very strong indication that the
13 polyolefin layer of which LDPE is a subset, is a bulk layer.

14 When we get to Example 5, in particular, again, this is the only
15 example that disclosed of the invention. So this is the support for claim 18,
16 which defined the .65 in green, this .65 mil LDPE as a bulk layer. Other
17 indications that the LDPE layer is a bulk layer is that the LDPE fits the
18 definition of bulk layer. It doesn't fit the definition of tie layer or at least is
19 outside of how *Riis* describes the preferred embodiment. So when *Riis* talks
20 about the tie layer, one, it says that the thickness should be kept to a
21 minimum. That comment is -- and that understanding was echoed by Dr.
22 Spontak, that when you're talking about something that is a tie layer, it
23 should be thin. It should be essentially as thin as you can get away with.
24 *Riis* says ideally between 2 and 10 percent of the overall thickness. The
25 LDPE layer at .65 mil is 21 percent of the overall thickness. So way thicker

1 than the preferred range that *Riis* discloses, and way thicker than the general
2 thinness that *Riis* advocates.

3 If you added, as Petitioner argues, the EAA layer, which we all agree
4 is a tie layer, but if you consider the LDPE layer, also a tie layer, and add
5 those together, now you've got a multilayer -- high layer that's over a quarter
6 of the overall thickness.

7 Another point in *Riis* is in paragraph 71, they talk about that the tie
8 layer should be multifunctional. And what they mean by multifunctional is
9 that it's able to adhere on both ends, on both sides, so that it has
10 characteristics of the two adjoining layers so that you can use a single tie
11 layer without the need for using separate adhesives or separate adhesive
12 layers. So *Riis* encourages multifunctional tie layers so that you can get
13 away with using only one and you can keep it thin. So those, in addition to
14 its express labeling of the LDPE layer in claim 18 as a bulk layer, the
15 thickness of the LDPE layer is inconsistent with its discussion and teaching
16 of tie layer and very consistent with its discussion and teaching of a bulk
17 layer.

18 This is also an indication of *Riis*. It's discussing Example 5 along
19 with all of the other examples. This is paragraph 162 again. It calls the
20 LDPE layer a bulk layer, expressly. Petitioner itself, when they put its chart
21 together, they -- in the additional layers on the exterior side, so above the
22 aluminum foil in blue, they correctly recognize that the LDPE layer at that
23 location was a bulk layer. They unilaterally called it a tie layer, tie layer
24 number 2. But if you wanted to be consistent with the EAA, LDPE
25 arrangement in *Riis*, where *Riis* is putting a tie layer next to a bulk layer,

1 then that combination on the interior side would more likely be deemed and
2 understood to be a bulk layer, just as it's a bulk layer on the exterior side.

3 JUDGE KALAN: Does *Riis* call for symmetry or are you relying on
4 the positioning of EAA next to LDPE or something else in *Riis*?

5 MR. GETZOFF: It's more that the second thing you said, Judge. So
6 it's not necessarily symmetry. Once you get above the aluminum foil to the
7 exterior, you can have other layers that aren't necessarily going to be
8 symmetrical to the three coextruded layers on the interior side. So I don't
9 think symmetry is the issue.

10 The issue is they have a thin tie layer of EAA next to a much thicker
11 LDPE layer. It's four times as thick as the EAA layer. The fact that it's a
12 bulk layer, it's undisputedly a bulk layer, on one side of the foil just lends
13 further support to the fact that it's serving as a bulk layer. Its primary
14 purpose is a bulk layer on the other side of the foil.

15 JUDGE KALAN: But is the interaction with, if you could go back
16 one slide, the interaction with --

17 MR. GETZOFF: Sorry, I'm sorry.

18 JUDGE KALAN: To your previous slide. The interaction with the
19 primer layer above that aluminum foil base layer is different than the
20 interaction with the LDPE with the COC as part of the coextrusion layer?

21 MR. GETZOFF: So it's a different -- it's not coextruded. So there's a
22 different issue here that I think diverges from -- in the -- no, there's not an
23 issue with the PEI primer layer in and of itself that I think would, in fairness,
24 indicate one way or the other. Primer layers, my limited understanding is
25 they're fairly common on the exterior side, particularly if you're going to
26 laminate an exterior layer of some kind, so that, in and of itself, I don't think

1 we're relying on that. We're relying on its adjacent to the EAA. If it's a tie
2 layer, you've got two -- you would have two tie layers back to back, and you
3 would have an overall thickness that greatly exceeds what *Riis* teaches. The
4 fact that it's a bulk layer above the foil next to an EAA layer is just further
5 support that that same configuration is part of the three-layer coextrusion.
6 Its primary purpose is a bulk layer in that arrangement.

7 Did that answer your question?

8 JUDGE KALAN: Yes. Thank you.

9 MR. GETZOFF: So this slide is just a wrap-up of the points I made.
10 It's also known in the art that for a COC layer, COC is difficult to work with.
11 It's also expensive. That's the innermost layer that provides the heat seal, the
12 sealant properties around whatever aggressive chemical you're trying to
13 maintain. LDPE is simply a low-cost way. I think one of the references,
14 *Morris*, said it's a workhorse, and in that sense it's true. It's a low-cost way
15 to extend the thickness of the COC layer without using expensive COC. So
16 in this arrangement, where it's at that thickness next to a COC layer, all the
17 indications, even if we didn't have *Riis*'s express labeling of it as a bulk
18 layer, all the indications are that its primary purpose is a bulk layer, not a tie
19 layer.

20 Just real quickly, this is Dr. Spontak agreeing that the tie layer one
21 needs to be thin. In fact, he goes on at length about how adhesive layers can
22 be too thick. That compromises performance. He makes an analogy to a
23 model using glue. In a plastic model, you want a very, very thin layer. And
24 we agree with him completely on all of these characterizations of what is at
25 least one way you can tell whether something is serving as a tie layer or a
26 bulk layer, and its relative thickness to the overall is certainly an important

1 one. And, again, the EAA layer in *Riis* is .17. That's very consistent with
2 the thickness of a tie layer. The four times thicker LDPE layer is very
3 inconsistent with its use as a tie layer.

4 Let me -- I'm going to move along a little bit. I'm mindful of my
5 time. And if we go up to -- so this is from *Morris* just providing evidence
6 that the LDPE layer has good sealability properties, which is why it's known
7 to be used next to a COC layer for its bulking purposes, which, again, that's
8 exactly how *Riis* describes and defines a bulk layer. And this is *Morris*
9 supporting that functionality of LDPE in that context.

10 So if -- let me go to slide 46. So if the LDPE layer in *Riis* is a bulk
11 layer and not a tie layer, then two conclusions necessarily follow. One, *Riis*
12 discloses a single tie layer, the EAA layer, with a loading of about 4, give or
13 take. So we do agree with Dr. Spontak's calculations that you can run the
14 calculations on thickness and get to the loading range. So there's a direct
15 relationship between loading and thickness, and I may even use those terms
16 interchangeably. But we agree that his math is correct, his computations are
17 correct. So when you talk about thickness, that necessarily leads to a
18 specific loading range. If the LDPE layer in *Riis* is a bulk and not a tie layer,
19 two conclusions. One is the single EAA layer. *Riis* has a single tie layer of
20 EAA with a loading of about 4, which is far below the claim limitation in
21 claim 1 and independent claim 13 of 7 to 20 grams per meter squared. And
22 the other conclusion is the other limitation, which is in claims 1 and 13 there
23 -- uses closed transitions when it claims a tie layer and a contact layer. So if
24 the LDPE layer is a bulk layer, again, it's outside the scope of the claim and
25 not taught by *Riis*.

1 To clarify, Petitioner makes no argument that *Riis*'s Example 5 should
2 be modified and it doesn't present any modification -- or it doesn't present
3 any argument to modify *Riis*, nor does it argue or explain how such a
4 modification might affect the overall performance of the film. So Petitioner
5 is relying on *Riis* at face value, which is why this distinction and this
6 determination of whether the LDPE layer is bulk or tie is so pivotal.

7 I'm going to move forward because I want to get to the revised
8 motion to amend and the substitute claims and *Holzmuller*. I generally agree
9 that the independent claims, they're essentially going to rise and fall based
10 on this same distinction and the same difference in the arguments between
11 Petitioner and Patent Owner on whether the .65 LDPE layer in *Riis* is
12 properly characterized as a bulk layer or a tie layer. I don't think there's any
13 substantive issues in these independent claims that change the analysis.

14 To be clear, we did cancel claims 2 and 3. Those were the melting
15 points, so those are out of this proceeding. But the other claims don't
16 materially change the analysis. They all really go back to whether that
17 LDPE layer is a tie or a bulk.

18 Okay, let me jump -- unless the Board has any questions on what I've
19 covered so far, I'd like to jump to *Holzmuller* in the context of the amended
20 claims. So in the revised motion to amend, Petitioners can see that *Riis* by
21 itself -- and I should emphasize this, Petitioner made no argument that *Riis*
22 by itself rendered any of the revised substitute claims obvious. They require
23 a combination with *Holzmuller* at a minimum and also the other references.
24 So the issue -- that's -- and this -- that's where I should clarify, that's for
25 claims -- substitute claims 16 to 18. And that was addressed by -- in
26 Petitioner's argument that there was some argument today that *Riis* by itself

1 renders substitute claims 16 to 18 obvious. That's not an argument they've
2 advanced before today. Their argument so far has been a required
3 combination for *Holzmuller*.

4 So first, is there a motivation to combine *Holzmuller* to *Riis*? The
5 short answer is no. And the reason is because the *Holzmuller* manufacturing
6 process is so materially different that one skilled in the art would not be
7 motivated to borrow the thickness ranges from *Holzmuller* with an
8 expectation that they would work or be successful in *Riis*. And here's why.
9 Yes, *Holzmuller* doesn't contemplate using COC. But I think more
10 importantly is instead of COC, *Holzmuller* uses an oriented polypropylene or
11 PET type material, and then they do not, and they cannot coextrude that with
12 the two other layers. Instead, they laminate it. So it's the lamination process
13 as opposed to a three-layer coextrusion is the key difference between
14 *Holzmuller* and *Riis*.

15 In a three-layer coextrusion, you've got very careful -- especially
16 when you're using COC, which the evidence in the record, including in the
17 Herb declaration, which I'll get to in a moment, COC is a very difficult
18 material to work with. And having COC coextrude properly to a viable film
19 along with LDPE and the EAA is a difficult process. It requires very tight
20 tolerances on the thicknesses. So when they're coextruded together, they
21 bond, they cool together, and the thickness tolerances are very important. In
22 *Holzmuller*, *Holzmuller* coextrudes or joint extrudes, it does disclose both,
23 but not with the PET layer. It coextrudes two layers together and then it
24 laminates, which is essentially a physical smashing of the coextruded layers,
25 onto the contact layer, which, instead of COC, is the polypropylene or PET.

1 When you smash -- when you laminate and you're smashing the
2 coextruded onto the PET layer, as explained by Dr. McCarthy and not
3 disagreed with by Dr. Spontak -- Petitioner made the point that Dr.
4 McCarthy was the only expert to discuss the difference in the manufacturing
5 process with *Holzmuller*. Dr. Spontak had the opportunity to disagree with
6 him and he didn't. So Dr. McCarthy's explanation of the differences stands
7 un rebutted. When you smash -- when you laminate the two layers onto the
8 PET layers, you lose control over the thicknesses of the layers and, to some
9 extent, you don't really care. You're pressing it down sufficiently. It's not as
10 robust as a three-layer coextrusion, but it's much simpler to accomplish.
11 And the resulting thickness layers are much less controlled and subject to a
12 much wider range, because to some extent, you don't care like you care if
13 you're you doing a three-layer coextrusion.

14 That's the reason why if you looked at the thickness ranges in
15 *Holzmuller*, they not only covered the ranges or at least overlapped with the
16 ranges from the '624, they were 10 to 15 times thicker. They're so much
17 thicker than the ranges, because the process is so different. And the
18 thicknesses from a laminate process cannot just be borrowed or imported or
19 used as a teaching when you are doing a three-layer coextrusion.

20 So if anyone wondered why the thickness ranges went up to -- from 4
21 to 130, and even the especially preferred was 9 to 48, when the loading
22 range in the amended claims is 7 to 20, it's because those huge thickness
23 ranges disclosed by *Holz* [sic] are a function of this different laminated
24 process. One skilled in the art would not look to borrow those.

25 JUDGE RANGE: So, Counsel, this is Judge Range. My
26 understanding of Petitioner's argument on this point is that *Holzmuller*

1 teaches essentially that the thicknesses are a result-effective variables,
2 meaning that the thicknesses -- *Holzmuller* teaches that the thicknesses can
3 be adjusted to serve various purposes depending on what you want. And
4 that's the teaching that would apply to *Riis*. So I don't really see how that --
5 you can correct me if I'm wrong on that, but, also, I don't really see how that
6 teaching is really relevant to the manufacturing process. It seems like kind
7 of a bodily incorporation argument you're raising here.

8 MR. GETZOFF: Well, it's -- so the context of *Holzmuller* in talking
9 about these wide ranges that you can use to achieve these different results,
10 that simply doesn't apply to a three-layer coextrusion. So that's why -- if you
11 ignore the context of *Holzmuller* and the fact that it's a laminate as opposed
12 to a three-layer coextrusion, then I would agree with you that you've got a
13 disclosure that says, look, you can choose different thicknesses and loadings
14 and come to different outcomes, but the context of that is when you're
15 talking about a laminate. A laminate allows for much wider ranges of
16 thicknesses that work perfectly fine for a laminate, but that are not going to
17 work for a three-layer coextrusion, particularly a three-layer coextrusion for
18 COC. So that's why you can't just divorce the thickness ranges from
19 *Holzmuller*.

20 You also can't divorce -- I mean, *Holzmuller* has this statement, I
21 think it's in paragraph 20, about, you know, you can combine the different
22 materials. It doesn't really say to modify the thicknesses. The actual phrase
23 is, "It's possible to combine materials, the positive properties of which have
24 an additive effect." Yes, it has a very general statement that you can mix
25 and match from these thousands of combinations disclosed in *Holzmuller*,
26 none of which is enabled. I understand that its lack of enablement doesn't

1 mean it's worthless as a teaching, but it has an impact for one skilled in the
2 art looking for guidance on, am I motivated to take these thickness teachings
3 from *Holzmuller* and just apply them wholesale to a three-layer coextrusion?
4 The difference in the process tells that person of ordinary skill you can't,
5 because you're worried about things in a three-layer coextrusion with COC
6 that you don't have to worry about in a lamination.

7 JUDGE RANGE: Sounds --

8 JUDGE KALAN: We're out of time. Oh, I'm sorry, Judge Range, if
9 you need to follow up.

10 JUDGE RANGE: Thank you. Yeah, I was going to say just I guess
11 another way of putting that is that you're arguing that even if our second
12 reference, *Holzmuller*, suggests you'd want these different thicknesses,
13 following the manufacturing process of *Riis*, you might not be able to get to
14 those different thicknesses. Is that sort of the argument?

15 MR. GETZOFF: Yeah, so that's exactly right. Well, and there's no
16 expectation that those thicknesses are going to work because just because
17 they worked in a lamination process does not mean and does not provide a
18 reasonable expectation of success that they're going to work for a three-layer
19 coextrusion.

20 I know I'm at 50 minutes. Let me just spend one more minute talking
21 about Herb, the Herb declaration as well as the Herb patent that arose from
22 the prosecution history that the declaration was submitted in. The critical
23 issues there is, one, Manuela Herb showed that the .65 LDPE layer in *Riis*,
24 which was identical to the disclosure in *Osborne* that she was responding to,
25 it didn't work. As she said, she tested it and it more or less easily

1 delaminated. That's laboratory proof that it's not a tie layer in that
2 arrangement and that it worked as a bulk layer.

3 The other point about the prosecution of the Herb patent is Petitioner
4 argued that -- it was arguing over *Osborne*, which, again, with respect to this
5 disclosure, was identical to *Riis*, and said you cannot extrapolate *Osborne* or
6 *Riis* to other thicknesses or other materials. There's no expectation of
7 success in modifying *Riis* to come to the patented invention that they were
8 trying to obtain and that they did successfully obtain based on the
9 representations to the Examiner.

10 And then the final point from Herb, and then I'll stop, is she also
11 showed that these three-layer coextrusions with COC are difficult to obtain,
12 that the disclosure in *Riis* didn't work, it had to be modified, and she was
13 able to show that just using normal LDPE in that three layer process did not
14 work. So something more needs to be done, which was their evidence of
15 criticality there to overcome the *Osborne* reference.

16 If there's no further questions, I'll save the bulk of my time for
17 surrebuttal.

18 JUDGE KALAN: Thank you. And for sur-rebuttal, you presently
19 have five minutes left --

20 MR. GETZOFF: Thank you.

21 JUDGE KALAN: -- so I'll write that down. I'll turn the floor back
22 over to Petitioner's counsel. You have 15-1/2 minutes for your rebuttal.

23 MR. LEVY: Thank you, Your Honor. Okay, Dr. Kilgore, do you
24 mind getting our slides back up? This first slide.

25 JUDGE RANGE: While you're doing that, I don't want to throw you
26 off, but I've been wanting to ask you. So, Patent Owner raised the argument

1 that on your construction of tie layer, essentially every layer would be a tie
2 layer. How would you respond to that?

3 MR. LEVY: Your Honor, I think that's quite overbroad. We point to,
4 first, the specification itself, saying it has to be sufficient to provide the
5 adhesion. Just because different layers might be adhered doesn't mean that
6 they promote or provide the adhesive properties. So I think that's a
7 mischaracterization for sure.

8 And I guess on that note here, you know, one thing I didn't hear with
9 respect to this is, from Patent Owner, why a structure that includes these
10 polymer layers that meet all these limitations, the limitation of the claims,
11 same loading ranges, they're met by *Riis*, why isn't this a tie layer? And I
12 think we have to keep looking back to the claims here. And the claims here
13 only describe tie layers. We don't have any issue about bulk layers or
14 anything else within the '624 patent.

15 You asked the question earlier, Your Honor, about the term
16 "primary". Does it require a tie layer and bulk layer be mutually exclusive?
17 And that's what my friend across the aisle said. But even *Riis* says that's not
18 the case. We see that in paragraph 135 of *Riis*.

19 And I believe you also asked a question along the lines of, you know,
20 where are the terms and maybe guidepost or guidance in the '624 patent as
21 far as what the layers need to be? We heard Counsel discuss again and again
22 about *Riis*. Patent Owner's definition comes straight from *Riis*. They cite to
23 it over and over, and that's just fundamentally wrong. It goes against the
24 canons of claim interpretation. We look to the intrinsic evidence to
25 determine if the plain and ordinary meaning is clear in view of the intrinsic
26 evidence. And here it is. There's no reason to go to *Riis*.

1 Opposing counsel also makes issue about what Dr. Spontak has said.
2 And there was a lengthy deposition of Dr. Spontak. And I think one thing to
3 point out is there were some questions about bulk layer. We don't have a
4 slide explicitly for it, but I direct the Board to his testimony. I believe on
5 page 81, he first acknowledges the bulk layer aspects of *Riis* as how *Riis*
6 defines it. But that wasn't part of the analysis of the claims here. He does
7 describe bulk and other aspects, but the key here is we have to focus on what
8 the claims were. And I apologize, I believe that exhibit was 215, his
9 deposition. So he starts talking about the bulk top properties of polymers
10 later, but he's talking about in a different aspect. There's not a confusion
11 among our experts.

12 If we go to Patent Owner's slide 38, we see some of the statements
13 from Dr. Spontak and they make a big deal about this very thin layer aspect.
14 But here's the problem, these were bad questions. They did not ask them
15 what is the plain and ordinary meaning of tie layer? They gave these very
16 different scenarios, sometimes going down to molecular aspects. When you
17 look at the whole deposition, it makes sense. Much of this was described
18 when you're getting to a very thin layer. But nevertheless, Dr. Spontak
19 described how LDPE can serve other purposes as well. We know that LDPE
20 is not limited, this very thin layer that's very much described in *Riis* as well
21 as others. LDPE we see from the other prior references, too, described as a
22 workhorse, multiple other references described with EAA for a tie layer.

23 And I think the next thing to really think about is how Patent Owner
24 talks about primary purpose. And if you take that really to its final
25 conclusion or the end, it really allows the patentee or the person to claim
26 whatever structure they want, but find a different purpose for it and thus be

1 patentable over the prior art. And I do this a little bit hesitantly. I don't like
2 analogies usually, but since my friend talked about banana bread, I'm going
3 to try to give it a shot here.

4 So what happens if someone looks at the base layer, barrier layer,
5 depending how the terminology is, the aluminum layer, and calls it a thermal
6 shielding layer? The creator (phonetic) maybe of that film thinks that's
7 important for some reason or other regarding thermal shielding. And, you
8 know, there's other barriers that could work, but they probably don't have as
9 good a thermal properties. Would that aluminum layer then no longer be a
10 base or barrier layer because you're calling it a thermal shielding layer? No,
11 it doesn't make sense whatsoever.

12 Next, just going through a couple points, there were some questions
13 about the amended claims, and I believe I heard --

14 JUDGE KALAN: I have a question again about the origins of the
15 primary purpose terminology. Is it fair to say then that it appears to have
16 originated with that portion of Dr. Spontak's deposition? And can you point
17 us to any other place where a primary purpose test or inquiry is set forth?

18 MR. LEVY: Yeah, and I think to be clear, Your Honor, this was from
19 deposition transcript, not his declaration. There was nothing --

20 JUDGE KALAN: Deposition transcript.

21 MR. LEVY: Yeah, a declaration from him regarding a primary
22 purpose. Again, that was not something in the specification nor in the file
23 history. And there's not pointing to a prior art reference which is used to
24 incorporate that. Is that where they got it? Possibly. The only time you
25 really see about primary purpose here on this slide is in reference to these
26 thin tie layers. And again, we're talking about a couple different aspects, and

1 there's a lengthy portion of the deposition where we talk about how tie layers
2 can be used in different manners, but this wasn't in reference explicitly to the
3 '624 patent either. The questions were not styled that way. So to try to tie
4 what Dr. Spontak said in further describing how tie layers might work, that's
5 just completely impermissible as far as trying to limit what a plain and
6 ordinary meeting of tie layer would be.

7 So moving on for a little bit, so I think one thing about *Holzmuller*
8 that was mentioned, just to clarify, I believe *Holzmuller* does discuss a three
9 layer intermediate layer, and this can be a coextrusion. I believe that's in
10 paragraph 16 and supported as far as a coextrusion by 24 and 26. There's
11 also Fig. 4 that provides it. So we disagree completely with Patent Owner
12 regarding that as far as *Holzmuller*.

13 And we've never had the combination the way that Patent Owner has
14 described it here. We're using the structure from *Riis* with some of the
15 advantages of varying thicknesses from *Holzmuller*. Our position has not
16 shifted on that.

17 Beyond that, so we get to the Herb declaration, and this is
18 problematic for multiple reasons. First, the declaration, again, there's not
19 laboratory testing with it, it's a declaration, but only goes to show the
20 unexpected adhesive properties of C8 LLDP, not what we're dealing with
21 here. It's a comparison regarding the different polymer that's being used in
22 the experimental purpose, and that's what we're getting at here. It's not a
23 situation where films never delaminate. It depends, in some situations they
24 can, but they have to stay in structure for their intended purpose. And we
25 saw in *Riis*, what we have here, they had a film that was EAA, LDPE, COC
26 that they had tests going for 31 days. That's not an issue.

1 So another thing to add with Herb is the polymer being used is quite a
2 bit different. They added a certain metal to it and that's how they got the
3 unexpected results.

4 But even putting those aspects aside, that was brought up for the first
5 time in, I believe, was the very last response. But yet Patent Owner had the
6 opportunity, they had this whole file history and referenced it in the
7 preliminary response. So we have a situation where we go throughout post-
8 Institution phrase, we talk about *Riis* and the layers, but only during the
9 revised motion to amend, where they simply took claim 8 and moved it into
10 the substitute amended claim -- substitute independent claim? And now they
11 address this argument, which could have been used elsewhere? That's just
12 completely inappropriate in reference to the guidelines. As stated in the
13 practice guidelines, a reply or sur-reply that belatedly presents evidence may
14 not be considered, and it's improper for a reply to present new evidence that
15 could have been presented in a prior filing.

16 So with that, we don't see any other discussion, even in the Herb
17 declaration. But I'm happy to answer any remaining questions that this
18 panel has regarding our presentation, our side, or anything else that comes to
19 mind.

20 JUDGE RANGE: I wanted to make sure I understood this issue with
21 the -- I keep forgetting the name of it, the Holtz -- was it *Holzmayer* [*sic*]?
22

23 MR. LEVY: *Holzmuller* reference. Yes, Your Honor.

24 JUDGE RANGE: And I believe you were essentially saying that
25 paragraph 16 of *Holzmuller* teaches a manufacturing process is similar to
26 *Riis*, such that a person of skill would think that you could vary thickness in
Riis. Was that what you were arguing?

1 MR. LEVY: Well, Your Honor, I guess to sort of step back for a
2 second, we've got a couple things. We have the Figure 4, and then in
3 paragraph 16, what it does is it allows for this three-layer intermediate layer.
4 And *Holzmuller* also contemplates that you can have a coextrusion, and
5 that's according to paragraphs 24 and 26. But we're just saying that this runs
6 counter to his claim to -- opposing counsel's claim that *Holzmuller* does not
7 allow for a three-layer coextrusion. That was the point I was trying to make
8 with that.

9 JUDGE RANGE: Okay. Okay, so would that also suggest that *Riis*'s
10 manufacturing process would be sufficient to vary thickness in the way you
11 would want to based on the teaching of *Holzmuller*?

12 MR. LEVY: Yes, Your Honor, and I think part of that goes to we
13 have to remember with, you know, *Riis* or, even more importantly, the '624
14 patent, we're talking about conventional formings of coextrusions,
15 laminations. They're not relying on new methods or new methodology.
16 There's not a novelty to that. So with all that said, yes, there's not an issue as
17 far as the '624 patent or even *Riis* in having these here.

18 JUDGE KALAN: I have one question on a different topic regarding
19 the Herb declaration. And is it Ms. Herb or Mr. Herb?

20 MR. LEVY: I believe, Your Honor, it's Dr. Herb, but I don't know
21 100 percent. It is Ms., at least, yes.

22 JUDGE KALAN: Manuela, I was going to go with Ms., but wanted
23 to confirm. On the issue of our consideration of that declaration, do you
24 have any cases, pro or con, that you can point to where the Board has relied
25 on a similarly situated declaration of a different inventor in a different
26 proceeding relating to a different patent owned by an opposing party?

1 MR. LEVY: Your Honor, we have looked there. A lot of these issues
2 are so fact-intensive, we have not found one exactly on point with that. But
3 that said, you know, a lot of what we're looking for is in reference to
4 hearsay, which is always fact-specific. But here, what we do know for sure
5 is just the timing of it in comparison to everything else. Having this in the
6 prosecution history from the POPR timeframe all the way to now, and,
7 again, the argument was relevant for everything else. It was just put in a
8 position where we couldn't have our expert respond to it there afterwards.

9 JUDGE KALAN: Thank you. You indicated you were wrapping up.
10 I'm looking to see if there are any other questions from my fellow Judges.

11 JUDGE RANGE: No more questions for me.

12 MR. LEVY: Your Honors, thank you very much. I'm not sure
13 exactly how much time I left, but I'm happy to cede the rest of it.

14 JUDGE KALAN: Thank you. Approximately two minutes. I
15 appreciate your mindfulness of the time. I will return it to Patent Owner,
16 who has five minutes remaining for surrebuttal.

17 MR. GETZOFF: Thank you, Your Honors. First, Judge Range, you
18 ask for a disclosure in the '624 patent with respect to the primary purpose on
19 tie layer. As I said, it doesn't use the word -- the phrase "primary purpose,"
20 but column 4, lines 35 to about 40, it says, "According to the disclosure, the
21 tie layer is selected to provide sufficient adhesion between the base layer and
22 the coextrusion layer." So that definition dovetails with *Riis*'s definition
23 about you must have sufficient adhesion. It also uses the word "is selected,"
24 which dovetails with the primary purpose definition, which is, why is it
25 there? Why would you choose a tie layer and consider it a tie layer? It's
26 because it's selected for its primary purpose. Again, of course, it doesn't use

1 the word "primary purpose," but the next sentence says, "It may give melt
2 strength." Melt strength might be a secondary benefit. So it recognizes that
3 these layers may have some ancillary benefits, but it's selected for one
4 particular purpose. I think that's the best reference in the '624.

5 Judge Kalan, you asked about where's the bulk layer plain and
6 ordinary meaning in our papers. It's in our sur-reply paper 30 at page at
7 page 10.

8 On the Herb declaration, the scheduling order that the Board issued
9 after our revised motion to amend specifically allowed the parties to present
10 new evidence -- allowed Patent Owner to present new evidence in response
11 to Petitioner's opposition to the revised motion to amend. There's no
12 question that the Herb declaration and that prosecution history is responsive
13 to the arguments that they raised on the amended claims. That it might also
14 bear on prior arguments in the case is beside the point. We haven't argued it
15 either in our papers or in this proceeding on earlier issues. But it's certainly
16 relevant to the amended claims and the arguments that have been advanced
17 there, so it's certainly proper.

18 There was a question on, you know, how do we know that the LDPE
19 in the substitute claims is there as a tie layer when it's so thick? And this
20 gets to the inventive aspect of the '624 and the substitute claims, it's because
21 the EAA is so thick. The EAA and the LDPE have similar ranges, which
22 means they could be a 1-to-1 ratio. It was unusual to have an EAA so
23 relatively thick next to that other layer, an EAA layer at that thickness. As
24 even Dr. Spontak said, at that thickness, it's prone to delamination and
25 wouldn't work. And what the '624 inventors found is that, yes, except if you

1 pair it with another tie layer of similar thick thickness, that they had the
2 unexpected beneficial result.

3 And then finally, on the Herb declaration, just to be clear, she
4 specifically tested -- Counsel said that there was no laboratory testing. She
5 told the Examiner, I tested *Osborne* exhibit -- Example 5, which is identical.
6 To be clear, there's no daylight between *Osborne* Example 5 and *Riis*
7 Example 5. It's verbatim the same. She said, I tested Example 5 from
8 *Riis/Osborne*. It did not work. She concluded that the LDPE layer more or
9 less easily delaminated. So not only does that undercut the teachings of *Riis*,
10 which is why she did the test because they were trying to overcome
11 *Riis/Osborne*, but it emphasizes how difficult these three-layer coextrusions
12 are to get them to work.

13 And I think that's -- I have 45 seconds left, by my count, for any
14 questions.

15 JUDGE KALAN: Any questions from the panel?

16 JUDGE RANGE: You already addressed the question I had, so.

17 MR. GETZOFF: Thank you very much, Your Honor.

18 JUDGE KALAN: Thank you all for your attendance and your
19 presentations. This matter is now submitted to the Board for preparation of
20 the final written decision, and we are adjourned.

21 (Whereupon, the proceedings at 3:18 p.m. were concluded.)

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Patent 11,260,624 B2

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