

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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BILLERUD AKTIEBOLAG  
Petitioner,

v.

WESTROCK MWV, LLC,  
Patent Owner

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IPR2023-01206  
Patent 11,293,142 B2

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Record of Oral Hearing  
Held: January 22, 2025

Before CHRISTOPHER M. KAISER, ELIZABETH M. ROESEL, and  
AVELYN ROSS, *Administrative Patent Judges*.

APPEARANCES:

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The above-entitled matter came on for hearing on January 22, 2025, commencing at 1:00 p.m., via video teleconference.

P R O C E E D I N G S

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JUDGE ROESEL: Good morning, all. Today we will hear oral argument in IPR2023-01206, concerning U.S. Patent 11,293,142. The case is captioned Billerud v. Westrock.

I'm Judge Roesel. And with me on the screen today are Judges Ross and Kaiser. They're appearing remotely. And a court reporter is here to transcribe the arguments. And a transcript will be entered into the record. Members of the public or the press may be here also to listen in.

So let's start with introductions from Petitioner.

MR. MEYERS: Your Honor, Richard Meyers for Petitioner.

JUDGE ROESEL: And Patent Owner?

MR. JONES: Joshua Jones for the Patent Owner.

JUDGE ROESEL: So, each side will have 60 minutes of argument time total. Patent Owner submitted a LEAP request, so Patent Owner gets an additional 15 minutes for the LEAP Practitioner. Petitioner will argue first, may reserve time for rebuttal. Patent Owner may likewise reserve time for surrebuttal.

Each party has filed demonstratives. And to the extent your argument refers to a particular slide, it's helpful for the record, and for the Judges when we review the record, too, if you put the slide number in your argument. Or exhibit number, paper number, whatever.

We did receive objections to Petitioner's Slides 12, 14, and 19 as new evidence or argument not presented in a previous paper. We will not preclude Petitioner from presenting these slides; however, we caution both

1 parties that today's hearing is not an opportunity to present new arguments  
2 or introduce evidence not already in the record.

3 Then I also wanted to observe that Exhibits 1016, 2011, 2012, and  
4 2013, that's the Wiren declaration, the Wiren deposition, the Klass third  
5 supplemental declaration, and a Board email, were all filed on P-TACTS  
6 under the designation "Parties and Board Only." This appears, to the Panel,  
7 to be a filing error. There is no protective order in this case, and the exhibits  
8 don't appear to us to be confidential.

9 Petitioner, do these exhibits contain any confidential information?

10 MR. MEYERS: No, Your Honor.

11 JUDGE ROESEL: And do you plan to discuss any confidential  
12 information today?

13 MR. MEYERS: No, Your Honor.

14 JUDGE ROESEL: Okay. Patent Owner, same questions for you.  
15 Do these exhibits contain confidential information?

16 MR. JONES: They do not.

17 JUDGE ROESEL: Okay. And no confidential information will be  
18 presented today, is that right?

19 MR. JONES: Correct.

20 JUDGE ROESEL: Thanks. Okay, with that, Petitioner may begin.  
21 And please let us know whether you would like to reserve rebuttal.

22 MR. MEYERS: I would, please. May I reserve 20 minutes?

23 (Pause.)

24 JUDGE ROESEL: You may begin when you're ready.

25 MR. MEYERS: Thank you. May it please the Board, thank you in  
26 advance for your time and attention today.

1           We're here today to talk about three challenges to the patentability  
2 of the '142 patent. Ground 1 relates to the most claims, and it's only based  
3 on two prior art references. Fugitt is the first prior art reference. This  
4 published patent application is owned by the Patent Owner. And  
5 Papermaking is the second prior art reference. It's part of the Papermaking  
6 science and technology book series. Grounds 2 and 3 have additional  
7 references.

8           Also, the Patent Owner has proposed four new claims. We'll  
9 discuss those in detail as well. They are obvious over Fugitt and  
10 Papermaking, in combination with some additional references.

11           Of course, the '142 patent deals with a process for making patent  
12 board. Paperboards, sorry. The '142 patent describes this process. This  
13 process is described and summarized in our petition. It's also summarized in  
14 the Patent Owner preliminary response as well. And it's also summarized in  
15 the decision granting institution. With that being said, we can briefly recap  
16 Figure 2 to talk about this process a little bit.

17           The process begins in a head box. That's at the upper far left  
18 designated as 22. That's where a slurry is sprayed onto 24, which is a  
19 screen. And as it progresses down that screen it begins to form a sheet.  
20 There are several presses. 28 is a wet press, and then a dryer 30 and then  
21 another press, typically called a size press 32.

22           And as the sheet is moving through this process it is beginning to  
23 take better shape as a film. It eventually passes to the item marked on  
24 Figure 2, designated as 60. That is a heated hard-nip calender. It's a  
25 precalender. It's called a precalender because it is in this system before the  
26 coating process. The coating process is designated in 40 and 42. That's for

1 multiple layers of coating.

2 Then it progresses to a gloss calender. The gloss calender is also  
3 called a finishing calender. It's after coating, it's before the paperboard is  
4 wound into the final roll and shipped. It's not an alternative to the hot hard  
5 calender. There are a lot of things going on between the hot hard calender  
6 and the gloss calender.

7 There are probably a couple terms that we should discuss as well.  
8 For example, bulk. When a paperboard has bulk that is another way to  
9 describe the thickness. Thickness is described as a calender. As a caliper.  
10 So a desired characteristic of a paperboard is less fiber, greater caliper. That  
11 is better bulk.

12 Just as the inverse of density. So when you have the same  
13 thickness of a paper, high density means lower bulk, meaning it's more  
14 compact. So for example, if you took like this, a notebook that has a lot of  
15 paper stacked together that's a very dense product. If this paper was  
16 crumbled up but it had the same thickness, it would be a less dense product,  
17 have more air and better bulk.

18 Now there are many different paperboard grades. Importantly, the  
19 claims of the '142 patent cover them all. This exhibit is from the  
20 Papermaking reference and is a chart that outlines the different paperboard  
21 grades.

22 JUDGE ROESEL: Which slide are you on, please?

23 MR. MEYERS: This is Slide 5. It is part of Exhibit 1009, Page  
24 55. It's Slide 5. It's entitled paperboard grades.

25 JUDGE ROESEL: Did I hear you correctly, you're saying the  
26 process, the claimed process pertains to all of the paper grades on Slide 5?

1           MR. MEYERS: Yes, ma'am. The '142 patent describes the paper,  
2 it says that the paperboard substrate may be any paperboard material that is  
3 capable of being coated. And the claim is directed to a method of making a  
4 paperboard substrate.

5           JUDGE ROESEL: Does that include wood containing  
6 paperboard?

7           MR. MEYERS: It does. It does. In fact, the '142 patent  
8 specifically states that it does not preclude, it does not preclude wood  
9 containing boards. If you look at Column 2 of the '142 patent, it states that  
10 the paperboard substrate may be any paperboard material that is capable of  
11 being coated. And, of course, that's what I just quoted there.

12           And then in Column 3 it says, still furthermore, the paperboard  
13 substrate may be substantially free of ground wood particles. So that's  
14 certainly an embodiment that is covered by the '142 patent. But in that  
15 paragraph they're also talking about additional components, such as binders  
16 may be there, fillers may be there, pigments may be there and the like. So  
17 they broadly disclose and claim paperboard products, paperboard grades, in  
18 that claim.

19           JUDGE ROESEL: So how about the Fugitt reference? Where  
20 does that fall among these paperboard grades?

21           MR. MEYERS: Same definition. The Fugitt reference  
22 specifically states that, the Fugitt reference says that, it's Paragraph 24 in  
23 Column 2 of Fugitt reference. As used herein, paperboard substrate broadly  
24 refers to any paperboard material that is capable of being coated with a base  
25 coat.

26           So as I was stating, that the most important properties are high

1 bulk, stiffness and smoothness. That's what all, that's what the Fugitt  
2 reference, that's with the '142 patent, that's what all the cited prior art is  
3 desiring to achieve.

4 With respect to Claim 1, you know, as we stated, the preamble of  
5 Claim 1 says a method for manufacturing a paperboard structure. We'll  
6 spend a lot of time talking about Section 1.a.ii, which is the fourth block  
7 down that has the black box around it.

8 This is the claim limitation that says, wherein a contact surface of a  
9 thermo-roller is heated to an elevated temperature of at least 250. When this  
10 patent was prosecuted, the of at least 250 was added during prosecution.  
11 The reason it was added during prosecution is because there was a rejection  
12 over the Fugitt reference. That was an anticipation rejection. The examiner  
13 stated that the Fugitt reference discloses each and every element of the  
14 original claim. Patent Owner added at least 250, and then the claim was  
15 allowed.

16 Fugitt is Westrock's own prior art. Like Papermaking, and like the  
17 '142 patent, Fugitt says that they want bulk. One thing they specifically  
18 state is that smooth paperboard without densification, maintaining thickness  
19 and with the minimum cellulose fiber usage. So Fugitt was cited as a 102  
20 reference. And the examiner allowed the application after the temperature  
21 was added.

22 Now there was some inconsistency with this and the Patent Owner  
23 expert, Charles Klass, stated in his declaration that we, the Petitioners, were  
24 mischaracterizing this and that the responses included in exchange between  
25 the examiner and the Patent Owner, that included caliper basis weight range,  
26 Y2 curve, et cetera. But when we asked him about this during his deposition

1 to try to get this cleared up, he just stated that this was because he was told  
2 by Patent Owner counsel that there was this exchange. But if you look at the  
3 record, it is pretty clear that the determining factor here was simply  
4 temperature. So --

5 JUDGE ROESEL: Counsel, let me interrupt. You're displaying  
6 Slide 7 now. I don't see any citations to the petition on this slide.

7 MR. MEYERS: Any citation to what?

8 JUDGE ROESEL: The petition.

9 MR. MEYERS: Our petition?

10 JUDGE ROESEL: Yes.

11 MR. MEYERS: I'm not following you. Do we need, are you  
12 asking --

13 JUDGE ROESEL: Well, I'm just wondering what -- how this lines  
14 up with the motivations that were relied on in the petition.

15 MR. MEYERS: Okay. So the first thing is, if we're talking about  
16 the motivation, so the first thing we needed to talk about when determining  
17 obviousness is why would you want to heat the calender. Right? Is that  
18 what you're talking about, the motivation to arrive at the --

19 JUDGE ROESEL: Well, Fugitt discloses heating, right?

20 MR. MEYERS: Right.

21 JUDGE ROESEL: It's steam heating, correct?

22 MR. MEYERS: Right.

23 JUDGE ROESEL: The question is whether it would have been  
24 obvious to use the temperature range that's recited in the claim.

25 MR. MEYERS: Sure.

26 JUDGE ROESEL: Isn't that the issue here for Claim 1?

1 MR. MEYERS: That's right. So Fugitt discloses that it may be  
2 steam-heated. Fugitt does not exclude other hearing mediums. Fugitt says  
3 the roll, in fact, there is only one sentence in Fugitt that relates to this. They  
4 say that the rolls may be steam-heated.

5 So Fugitt does not, Fugitt is, was considered, and actually referred  
6 to as conventional calendering. So there is nothing to preclude using other  
7 heating systems. So if we want to talk about the motivation to use excessive  
8 heating, is that is to -- it improves bulk. So Fugitt talks about the desirability  
9 to finish, to have finished paperboard having a smooth surface that was  
10 developed without the need for densification. Papermaking talks about the  
11 same thing, Gratton talks about the same thing.

12 So we know that heating improves bulk. We know that higher  
13 temperature improves bulk. So if we look at the next slide, this is how, these  
14 are several quotes from the prior art as to why you would use the higher  
15 temperatures.

16 The Mohan reference was cited by applicant, I'm sorry, by Patent  
17 Owner as being cumulative to Papermaking. That also gives us an  
18 indication of what is viewed as a traditional calender because this induction  
19 heating, and they say you may use steam, oil, other heating fluid or internal  
20 induction heating. Papermaking says, water, steam, thermal oil are the three  
21 main heating media in thermal rolls.

22 So if you look at Fugitt, that does not disclose, or is not limited to  
23 any specific heating and just states that the rolls may be steam-heated, there  
24 would certainly be motivation to use the higher temperatures and other  
25 heating mediums disclosed in the prior art.

26 JUDGE ROESEL: So is it Petitioner's position that the motivation

1 of the skilled artisan would have been to increase the temperature above the  
2 level achievable by steam-heated rolls, is that Petitioner's position?

3 MR. MEYERS: Yes, ma'am.

4 JUDGE ROESEL: So it's not simply using steam-heated rolls  
5 within the level of temperature known in the art for steam-heated rolls?

6 MR. MEYERS: That is correct.

7 JUDGE ROESEL: It's to increase -- what Petitioner's obviousness  
8 case is, one of ordinary skill in the art would have been motivated to heat the  
9 rolls hotter than what's achievable by steam?

10 MR. MEYERS: That is right. By conventional heating media,  
11 such as water, steam, thermal oil, induction heating, et cetera.

12 JUDGE ROESEL: So one of ordinary skill in the art would have  
13 been motivated to replace the steam-heated rolls with oil heated rolls or  
14 induction heated rolls, is that what Petitioner's position is?

15 MR. MEYERS: That's right. That's right. And we talk about  
16 replace. You know, there has been some issue in the pleadings about the  
17 expense of replacing the steam heating of Fugitt with oil. And there has  
18 been some debate about how much that would cost and whether or not that  
19 cost would mean that one of ordinary skill in the art would not be motivated  
20 to do that. But, you know, there are other factors as well. There is other  
21 factors involved as well.

22 If you're building one, if you're building one from scratch it would  
23 be no more difficult to build one from oil, using oil heat as steam heat. And  
24 also, it may be that when you have billion dollars facilities that the cost of  
25 converting from steam to oil is not that expensive either. In fact, the Marley  
26 reference that was discussed during the Patent Owner's expert's deposition,

1 that was actually an article about a plant that converted.

2 JUDGE ROESEL: So just to be clear, in the Institution Decision  
3 we relied on the teaching in the Papermaking treatise that talked about the  
4 temperature of the rolls when they were steam heating, heated, that could be  
5 up to, I think it was a temperature equivalent to 338 Fahrenheit?

6 MR. MEYERS: 338.

7 JUDGE ROESEL: Right. And so, Petitioner is not relying on that  
8 anymore?

9 MR. MEYERS: Oh sure. Sure.

10 JUDGE ROESEL: But you just said that the motivation would  
11 have been for the skilled artisan to replace steam with other heating media.

12 MR. MEYERS: You may replace steam. So if you had Fugitt you  
13 could use steam, and you could also use other media. So we're not saying  
14 that one would read Fugitt and say, you can only heat using steam and you  
15 can only heat to 338. If Fugitt is not limited, specifically limited to steam,  
16 one would look at Fugitt, and based on these other prior art references, to  
17 say there is multiple ways to heat a roll. There is multiple temperatures to  
18 reach when you heat a roll. You could use Fugitt as a starting point and use  
19 other types of heating media than just steam alone.

20 JUDGE ROESEL: Well, it makes the case complicated, if you ask  
21 me. I mean, what is the central proposition that Petitioner is saying? Is it to  
22 replace the steam-heated rolls with something else --

23 MR. MEYERS: the central --

24 JUDGE ROESEL: -- or to keep the steam-heated rolls and just  
25 increase the temperature?

26 MR. MEYERS: The central proposition is that it would be

1 obvious to heat to at least 250. It would obvious -- it would be obvious to  
2 use steam to go to 338. But it would also be obvious to heat above 338.

3 The '142 patent -- both Fugitt and '142 patent -- the '142 patent  
4 envisions temperature over that of steam, but they don't disclose that they're  
5 using oil. And they don't disclose that they're using steam only either.

6 JUDGE ROESEL: And the reason the person of ordinary skill in  
7 the art would have done this is to achieve higher bulk, is that --

8 MR. MEYERS: That is correct.

9 JUDGE ROESEL: And what temperature would have been  
10 needed to achieve higher bulk?

11 MR. MEYERS: Bulk improves as temperature improves. So to  
12 achieve -- there's two levers to achieve higher bulk. You reduce the nip load  
13 and you increase the temperature.

14 JUDGE ROESEL: Well, could you use temperatures below 250 to  
15 achieve higher bulk?

16 MR. MEYERS: Sure. It may not be the bulk level that you want  
17 to achieve with that particular product that you're making. But as you heat,  
18 as you heat the rolls the bulk improves.

19 JUDGE ROESEL: So what evidence has the Petitioner showed to  
20 say that the person of ordinary skill in the art would have elevated the  
21 temperature above 250 Fahrenheit to get higher bulk?

22 MR. MEYERS: All the prior art references say that you can  
23 increase the temperature to achieve higher bulk. And the prior art references  
24 used or disclosed temperatures that are higher than 338. For example,  
25 Papermaking says the hottest roll surface temperatures can reach over 220  
26 degrees Celsius, which is 428. And the reason that is done is to improve

1 bulk.

2 JUDGE ROESEL: But that's with oil heating, right?

3 MR. MEYERS: That's with oil heating. That's right. Fugitt says  
4 205 to 400. So there's a broad range there too. I mean, I'm sorry, Mohan  
5 says from 205 to 400. So that's a broad range there as well.

6 JUDGE ROESEL: Okay. So what about the factual issue that we  
7 identified in the Institution Decision? And that is whether the ordinarily  
8 skilled artisan would have been expected to achieve the properties that are  
9 disclosed in Fugitt, Example 3, and claimed in the patent when increasing  
10 the roller temperature?

11 MR. MEYERS: That is where the Papermaking reference comes  
12 in. They say that if you increase roller temperature you have improved  
13 smoothness. When you increase roller temperature you have improved bulk.

14 JUDGE ROESEL: But how do we know it's still going to have the  
15 properties that satisfy the claim?

16 MR. MEYERS: Like smoothness, for example?

17 JUDGE ROESEL: Yes.

18 MR. MEYERS: Okay. So --

19 JUDGE ROESEL: Among the others. I mean, there are several  
20 others, right?

21 MR. MEYERS: That's right. So, with smoothness, the short  
22 answer is that smoothness will get better, including at temperatures much  
23 higher than 250. Gratton stated this on one of the previous slides, that you  
24 would use increased temperature to increase smoothness, or to improve  
25 smoothness.

26 Papermaking, on Page 40, states that high temperature produces

1 better web surface quality, uniformity, and smoothness. So the expectation  
2 would be that the smoothness would stay under 3, which is required by the  
3 claim. For example, the smoothness in the Fugitt reference is 1.5.

4 And Patent Owner has stated that it would not be obvious to heat  
5 Fugitt because you would have -- you have the smoothness -- it would  
6 overshoot the Y2 curve, that we'll talk about in a second, also, it will mess  
7 up your smoothness. But that's simply not the case.

8 If you look, for example, at '142, the patent, their comparative  
9 examples, they all have a smoothness of under 2. And if you look at Figures  
10 5 and 6 of the '142 patent, there are probably 60 examples in Figures 5 and 6  
11 of prior art, examples in Figures 5 and 6 that all have a smoothness of under  
12 2 -- 2 or less.

13 If you look at Papermaking on Figure 62 -- and, of course,  
14 Papermaking discloses these much higher temperatures, right? If you look  
15 at Papermaking on Figure 62, that's Slide 15, you see the smoothness on the  
16 left side there. And in terms of bulk, you see SBS and FBB board, that  
17 whole range of both those boards have a smoothness of less than 2.

18 So, the description even says that Figure 62 shows a typical  
19 roughness and bulk data for coated paperboards. So, even if you use these  
20 much higher temperatures, the expectation would be that if it's coated -- and,  
21 of course, the claims require that the board to be coated -- if it's coated your  
22 smoothness will be less than 2. So the idea that you follow the prior art  
23 temperature on a coated board in Fugitt and go from 1.5 to over 3 just  
24 simply would not be expected.

25 JUDGE ROESEL: Okay, how about the basis weight? How  
26 would that be affected?

1           MR. MEYERS: That's the material that you would start with.  
2           That's the material that you would start with. So if you're talking about the  
3           Y2 curve, that's the relationship between basis weight and caliper. So when  
4           you heat it, the basis weight is going to stay the same because you have the  
5           same amount of material in the product. So the expectation that everything  
6           would go haywire with respect to Example 3 if it's heated to a higher  
7           temperature or heated to the claim temperatures of the '142 patent would not  
8           be shared by one of ordinary skill in the art.

9           So with respect to the Y2 curve, and again, Fugitt was an  
10          anticipatory reference, so with respect to the Y2 curve Example 3 discloses a  
11          paperboard that falls below the Y2 curve.

12          JUDGE ROESEL: So what evidence did Petitioner put forth to  
13          show that, you know, by increasing the temperature in Fugitt you would still  
14          meet these properties? Is that addressed by your expert?

15          MR. MEYERS: That's addressed by the expert. That's also  
16          addressed by all the prior art references that we cited as well. That the  
17          expectation -- one would have a reasonable expectation of success if they --  
18          the success being improved bulk, improved smoothness, if these paperboards  
19          were heated to the claimed temperature.

20          JUDGE ROESEL: Can you give me a cite to the expert  
21          declaration?

22          MR. MEYERS: I can. Let's see. He said that they're just like,  
23          just like the Board cited from Papermaking, you know, there are two, there  
24          are two levers here, right? There's increased --

25          JUDGE ROESEL: Okay, sir, if you please stand near the podium  
26          because my colleagues can't hear you if you're not --

1 MR. MEYERS: Sure. I'm sorry.

2 JUDGE ROESEL: Okay.

3 MR. MEYERS: Just like the references said, just like the Board  
4 noticed when it quoted Papermaking in the decision, there are two levers  
5 here. You have the temperature and the nip pressure. And that's also what  
6 our expert said. And at least in rebuttal I will show you the cites in the  
7 declaration where the prior art expert stated that.

8 So with respect to the Y2 curve, again, it is a relationship. It's just  
9 a relationship between basis weight and caliper. So you have a maximum  
10 basis weight. So a maximum amount of material in the board compared to  
11 the caliper or the thickness of the board.

12 So we're instructed by the prior art that increasing temperature  
13 increases bulk and caliper, and then you lower the nip load to preserve the  
14 bulk. And this information is, this information shows that one or ordinary  
15 skill in the art would know how to successfully and easily navigate this Y2  
16 relationship between basis weight and caliper. The Patent Owner expert is  
17 explaining this in his cross examination.

18 Fugitt has stated that the nip loads and the number of nips of the  
19 calender may be substantially reduced to minimize or avoid reduction in  
20 caliper thickness. So Fugitt states that there are a number of nips. You  
21 know, they have a multiple nip calender. Fugitt states that the number of  
22 nips may be substantially reduced.

23 And we asked Patent Owner's expert, isn't that just another way of  
24 saying, reducing the nip load and number of nips will save bulk? And he  
25 said, increases bulk, it saves bulk. Okay. So Klass clarified that saving bulk  
26 means making a less dense sheet and removing the nips is one way to do

1 that.

2 Also, speaking of Papermaking, we asked their expert, would you  
3 agree with me that the implied teaching of Papermaking is that nip loading is  
4 reduced when the temperature is highest. And he said, if the objective to, it  
5 depends on the objective of the papermaker. If the objective is to improve  
6 bulk or increase bulk, the nip loading could be reduced because of the  
7 impact of temperature on calendering.

8 And then we asked him, because the temperature is increased,  
9 correct, and he said yes. So if you look at Fugitt, which was the anticipatory  
10 reference, but for the heating feature and heat it to the elevated temperature,  
11 you would be motivated to arrive at Claim 1 with the reasonable expectation  
12 of success. The prior art says, heat increases bulk. And then you also can  
13 reduce the nip load as well.

14 So we can move on to Claim 2 for now. In the decision to institute  
15 the Board cast doubt on the Petitioner showing for Claim 2, but we think  
16 Claim 2 is obvious for several reasons. With respect to Papermaking,  
17 Paragraph 119 of the Zotterman declaration states that the line load may  
18 even exceed 571 PLI. And we stated this reads on 20 to 500 because may  
19 even exceed shows that the expectation is that it could be lower than 571.  
20 And this is with respect to Count 2. Count 1.

21 With respect to Count 2 Gratton was added. And Gratton is an  
22 SBS board. As shown on Slide 10, Gratton discloses various nip loads that  
23 are well within the claimed range. In the Patent Owner preliminary  
24 response, the nip loads of Gratton were not explicitly addressed. And this  
25 was acknowledged in the Institution Decision. The Patent Owner also did  
26 not present argument for Claims 2 and 4 separate from its arguments from

1 Claim 1 in their response. So there are no arguments relating to the non-  
2 obviousness of these nip loads with respect to Claim 2, Count 2.

3 And with respect to Claim 15, for some reason there appears to be  
4 an issue in connection with this claim as well because the claim reads, the  
5 method of Claim 13 wherein said ground calcium carbonate comprises at  
6 least 10 percent by weight of said base coat pigment, and at most about 60  
7 percent. Fugitt discloses a 50 percent calcium carbonate basecoat. So the  
8 basecoat is 50/50 calcium carbonate to clay.

9 Patent Owner first said that this is not within the range. 50 percent  
10 calcium carbonate is not within the range of ten to 60. But we, our position  
11 was that it was a prior art species that fell within the range.

12 After the Klass deposition, who confirmed that 50 percent falls  
13 within the range of ten to 60, after Patent Owner's deposition, Patent Owner  
14 updated this argument to say 50/50 doesn't mean 50 percent by weight, that  
15 we just left out the by weight part. But 50/50 is in fact 50 percent by weight.  
16 If you look five examples further in, five paragraphs further in the example  
17 of Fugitt they specifically state that that is 50 by 50 by weight.

18 Claim 23 adds an additional formula, the Y3 prime curve. Again,  
19 it is similar to the Y2 curve in that it is a relationship between basis weight  
20 and caliper.

21 This is the one where the Patent Owner accuses us of hindsight  
22 reasoning here, but our position on this, Your Honor, is it can't be improper  
23 hindsight when the legal conclusion is reached based on the facts gleaned  
24 from the prior art. This was not knowledge based only on the '142 patent.

25 So what we've talked about here is that one wants to improve bulk.  
26 One wants to use high thermo-roller heaters to improve bulk. So we know

1 that a bulk improvement resulting in an increase of the thickness of 12 to  
2 12.2 caliper would be expected.

3 And there is a slide in Gratton that shows this. And it is slide, and  
4 it is one of the slides that were objected to so I'll mention the reason for this  
5 objection here in a second when we talk about Slide 12. I think what Patent  
6 Owner objected to is the two red dots, two red circles on those dots. But the  
7 only reason they're there, these are the two that I want to talk about.

8 So if you look at the black darkened circle on the left, right along  
9 the smoothness Y axis at 6, that is from --

10 JUDGE ROESEL: So, just to be clear, so we can evaluate this,  
11 you're discussing Slide 12 --

12 MR. MEYERS: Yes, ma'am.

13 JUDGE ROESEL: -- and you're going to discuss it with respect to  
14 Ground 1 and Claim 23, is that right?

15 MR. MEYERS: That's correct.

16 JUDGE ROESEL: So why don't you start by looking at the  
17 petition and tell us what you argued about Claim 23 in the petition and  
18 whether you relied on Gratton, this figure, Figure 4.

19 MR. MEYERS: In the petition, with respect to Claim 23, we  
20 provided an example that fell within the Y2 curve, the Y3 prime curve,  
21 sorry, in Claim 23. We provided an example that fell within the Y3 prime  
22 curve. That example had a caliper of 12.2. The example in Fugitt, Example  
23 3 in Fugitt had a caliper --

24 JUDGE ROESEL: Wait, wait. 12.2, that's not an exact, that's not  
25 an example, that's a calculation made by the Petitioner, isn't that right?

26 MR. MEYERS: No, that's the caliper. That's the caliper that we

1 started with, 12.2. The caliper in Example 3 of Fugitt was 12. So Patent  
2 Owner's position is that we used hindsight to use 12.2 instead of 12 to  
3 satisfy the Y3 curve. And, of course, our position is the Y3 curve is a  
4 relationship, right? It's simply a relationship between basis weight and  
5 caliper. And the basis weight has a maximum allowable basis weight based  
6 on caliper.

7 And these are two things that one of ordinary skill in the art would  
8 understand how to manipulate. So if you have a caliper of 12 you have a  
9 maximum basis weight you can have based on that caliper to satisfy Y3  
10 prime. If you have a caliper of 12.2 you have a maximum basis weight that  
11 you can have to satisfy that one as well.

12 JUDGE ROESEL: Well, so, wait a minute. Claim 23 was  
13 challenged only in Ground 1, isn't that right? Not Ground 2.

14 MR. MEYERS: I believe that is right, Your Honor.

15 JUDGE ROESEL: Yes. And Ground 1 doesn't even include  
16 Gratton, right?

17 MR. MEYERS: That's right. But we use Gratton to explain why  
18 we did not have hindsight reasoning with respect to the Fugitt.

19 JUDGE ROESEL: Okay. So it wasn't, Gratton was not relied on  
20 in addition to challenge Claim 23, right?

21 MR. MEYERS: That is right.

22 JUDGE ROESEL: Okay.

23 MR. MEYERS: That is right. When the issue was hindsight  
24 reasoning going from 12 to 12.2, our position was that is completely  
25 reasonable because if you apply heat you would expect the, you would  
26 expect the bulk to increase if you apply heat.

1 JUDGE ROESEL: Is that all you have to do to increase bulk is  
2 just increase the temperature of the rollers?

3 MR. MEYERS: It's a combination of roller and nip load.

4 JUDGE ROESEL: Nip load. So are you proposing -- you know,  
5 you're saying, increase the temperature to increase bulk. Is that the only  
6 change you're trying to make to Fugitt to get the claim or is there more to it  
7 than that?

8 MR. MEYERS: To increase temperature? Well, that's the only  
9 change you have to make in Fugitt because it was anticipatory but for  
10 temperature. So, with respect to the hindsight argument, we were accused of  
11 hindsight for going from 12 to 12.2. And we said, if you applied heat from  
12 200 to something within the range of what they're describing as an elevated  
13 temperature, you would expect your bulk to increase. So an increase from  
14 12 to 12.2 would be completely expected because if you increase the heat  
15 the bulk will increase.

16 (Simultaneous speaking.)

17 JUDGE ROESEL: What is the bulk in Fugitt? And is it in need  
18 of, you know, is an increase in bulk desired for the Fugitt example?

19 MR. MEYERS: Fugitt, the whole purpose of Fugitt is to increase  
20 bulk and smoothness.

21 JUDGE ROESEL: Okay.

22 MR. MEYERS: And the whole purpose of the '142 patent is to  
23 increase bulk and smoothness. In fact, you know, as we discussed earlier,  
24 that's one of the most important properties in paperboard making. If you  
25 have increased bulk, you use less product. If you have, if you use less  
26 product and you have an acceptable board and you're selling this by the

1 tons, and tons, and tons, and tons, and you're using less fiber, that makes a  
2 very significant product. A very significant difference.

3 JUDGE ROESEL: Okay. You have about five minutes left.

4 MR. MEYERS: Okay. So I'll finish the point on the hindsight.  
5 So if you would expect to apply the heat, increase the heat in Example 3 in  
6 Fugitt you would expect the caliper to go from 12 to 12.2. And this figure --

7 JUDGE ROESEL: Why 12.2?

8 MR. MEYERS: That's just -- because that got us below the Y2  
9 curve. We could have gone 13, we could have gone 14. We could have  
10 made this even go further below the Y3 prime curve. But this was just a 1.6  
11 percent difference.

12 If you look at what happens to the sheets in Gratton when they  
13 apply the heat, it shows the data that, with respect to this example, there is a  
14 12 percent increase. So we could have gone, one of ordinary skill in the art  
15 would look at this and realize that the bulk, the caliper could have gone even  
16 higher.

17 So that is why we're stating that it is not hindsight because of the  
18 expectation that the bulk would increase using 12.2, you know, if you had 12  
19 and an example of an unheated, you know, something that's not heated to  
20 the elevated temperature in Fugitt, 12.2 is certainly reasonable. If we're  
21 talking about motivation to modify to arrive at the present invention.

22 So are there any questions from the Panel? And since we just have  
23 three minutes left --

24 JUDGE ROESEL: So, and when I'm looking at the petition, your  
25 case about Claim 23, Petitioner has asserted that it would have been obvious  
26 to exchange the SBS in Fugitt for the FBB, the folding paperboard, to

1 increase bulk. So is that how Petitioner contends that Claim 23 is obvious,  
2 that you would actually change the grade of the board from SBS to FBB?

3 MR. MEYERS: No. We think you certainly could. And for  
4 example, there are overlapping characteristics with respect to bulk. If we go  
5 back to Slide 15 that shows that. But that is for a separate example of 14.2.  
6 So we provided two examples with respect to Claim 23.

7 JUDGE ROESEL: So that's wrong what you asserted in the  
8 petition there, that it would have been obvious to exchange SBS in Fugitt for  
9 FBB to --

10 MR. MEYERS: Oh, no, certainly. That's certainly correct.  
11 Because they're overlapping materials. I mean, they're overlapping  
12 characteristics as shown in Figure 62 on Slide 15.

13 JUDGE ROESEL: So would that modification be necessary to  
14 reach Claim 23?

15 MR. MEYERS: The modification? Oh, no. The reason we used  
16 FBB there is because it had that caliper of 14.2 based on the data in Figure  
17 62 of Papermaking. That was just simply another example of satisfying that  
18 Y3 prime curve.

19 JUDGE ROESEL: Okay.

20 MR. MEYERS: Okay, thank you, Your Honors.

21 JUDGE ROESEL: All right. You had one minute left so we'll add  
22 that to your rebuttal time.

23 MR. MEYERS: Thank you.

24 (Pause.)

25 JUDGE ROESEL: Take your time.

26 MR. JONES: Thank you.

1 (Pause.)

2 JUDGE ROESEL: Good morning. Patent Owner will have 75  
3 minutes total, so how much time would Patent Owner like to reserve for --

4 MR. JONES: I'd like to reserve 15 minutes, please.

5 JUDGE ROESEL: Okay. All right. And so, I'll set the clock for  
6 60. So I won't divide it between you and the LEAP practitioner, and it's up  
7 to you to stop your remarks in time for the LEAP practitioner to have --

8 MR. JONES: I'm the LEAP practitioner.

9 MR. WOFSY: He's the LEAP practitioner.

10 JUDGE ROESEL: Oh, you're the LEAP practitioner.

11 MR. JONES: Yes.

12 JUDGE ROESEL: I'm so sorry.

13 MR. JONES: No, no problem.

14 JUDGE ROESEL: You're going to start with, okay, very good.

15 MR. JONES: Yes. Yes.

16 MR. WOFSY: He's going to do the whole thing.

17 JUDGE ROESEL: But again -- oh, you're going to do the whole  
18 thing. Wonderful. Great.

19 MR. JONES: Yes. Thank you. Okay, I'm ready. Thank you. So,  
20 this case initially presents itself, I think to most people who look at it, as a  
21 simple case of substituting a temperature from various references into Fugitt.  
22 And what happens when you take a close look at the teachings of the  
23 references you will find that it simply isn't a simple substitution as it first  
24 presents itself to be.

25 Another important point I want to try to make upfront is that the  
26 three properties that we've been discussing, so smoothness, basis weight and

1 caliper, these three items interplay with each other so that if you change one  
2 of them you affect the other two.

3 JUDGE ROESEL: Yes. The concern we expressed in the  
4 Institution Decision was, though, that whether there was actually a change  
5 necessary in the Fugitt process. So, you know, Fugitt teaches steam-heated  
6 rolls, and then you have another reference that teaches the temperature range  
7 for steam-heated rolls. And that overlaps with the claimed range. So why  
8 isn't that enough to show obviousness of Claim 1?

9 MR. JONES: Good question. So Fugitt is primarily concerned  
10 with special coatings. They achieved the smoothness and overall finished  
11 caliper and basis weight using coatings. And that's what the bulk of the  
12 description is about. Temperature does not play a particularly important  
13 role. You have to infer temperature from the fact that they say steam may be  
14 used.

15 JUDGE ROESEL: So just about any, is it Patent Owner's position  
16 that just about any temperature would work in the Fugitt process?

17 MR. JONES: It appears to be the case since the inventors in Fugitt  
18 did not give any information or detail about temperatures, other than to say  
19 those rollers may be steam-heated.

20 JUDGE ROESEL: So the person or ordinary skill would know  
21 that a temperature above 250 would work?

22 MR. JONES: I do not believe so. In fact, in the expert, so Mr.  
23 Klass' declarations have indicated that he's not even certain that the  
24 equipment in Fugitt could reach that temperature. 250-degree surface  
25 temperature, it may sound unimpressive when we all have the 212 boiling  
26 point temperature in mind, but one of the arguments that we've made in our

1 surreply is that the steam temperature is not particularly interesting, what's  
2 interesting is the surface temperature.

3 Claim 1 recites a surface temperature. And in order to get a  
4 surface temperature up to 250 degrees you have to have steam considerably  
5 hotter than 250 degrees.

6 JUDGE ROESEL: Yes. But the range that's disclosed in  
7 Papermaking, and the 338, that is the surface temperature, isn't that correct?

8 MR. JONES: Correct. From roughly 170 to roughly 338, I believe  
9 it is.

10 JUDGE ROESEL: Yes.

11 MR. JONES: Yes. So 250 is somewhere in the middle of that  
12 range. And the claim recites 250 and above 250. So there is an overlapping  
13 range, that's correct. However, it's our position that it wouldn't be  
14 obviously to necessarily use those temperatures because they're particularly,  
15 that's the high half of the temperatures disclosed in Papermaking.

16 JUDGE ROESEL: But isn't that enough for a prima facie case if  
17 there is an overlapping range, right? So that's enough, right, to show, unless  
18 there is some evidence to show that, to counter that.

19 MR. JONES: So, I would -- two items come to mind responsive to  
20 that comment. One is that it's a narrower range claimed than the range in  
21 the reference. So that's one factor.

22 The other factor is the fact that the properties -- so there's three  
23 properties, in Fugitt Example 3, they're apical. They're above and beyond  
24 the properties described in Papermaking or the other art of reference.

25 So you would be looking to a reference, Papermaking, for its  
26 teachings of high temperatures with the promise of reducing your caliper or

1 your basis weight or your smoothness. So, for example, Petitioner just  
2 argued that there is some headroom between the 1.5 caliper, 1.5 micron  
3 smoothness in Fugitt Example 3, and a 3.0 caliper in Claim 1. There is some  
4 headway. So you can degrade from Fugitt quite a ways from 1.5 and still be  
5 under the 3 in the claim.

6 But why would you want to degrade? Why would you want to go,  
7 when you're at 1.5 why would you overcook it and lose some of the precise  
8 smoothness that you could have achieved by just sticking with the process in  
9 Fugitt.

10 JUDGE ROESEL: But I thought I understood Petitioner to argue  
11 that increasing the temperature would increase the smoothness and that  
12 being known in the art.

13 MR. JONES: Increasing the temperature would increase the  
14 smoothness. So, normally, under normal processes, to increase smoothness  
15 you would press harder with a higher nip load to flatten the fibers. In  
16 temperature gradient calendering, which is what's in the '142 patent, and it's  
17 also in some of the other references and other contexts, it uses temperatures  
18 that are so high and they roll through so fast that the temperature only  
19 penetrates the outermost layer of the paperboard. And so you get some  
20 smoothing from the high temperature, that's true. And you're doing that  
21 without -- you're only compressing the outermost layer and making it  
22 smooth without densifying the underlying substrate material.

23 JUDGE ROESEL: So that's desirable, right?

24 MR. JONES: Correct. Okay. So moving on to the next big  
25 picture item that I would like to cover, which relates to the substitute claims.

26 So the Board basically adopted Petitioner's claim construction with

1 respect to Claim 1. Patent Owner had argued for a narrower claim  
2 construction, which was that only the thermo-roller, not the counter roller,  
3 was heated. And the Board indicated that the Board infers support for such  
4 an element is in the specification, however, the Board declined to read that  
5 limitation in through claim construction as the vehicle. And so --

6 JUDGE ROESEL: And Patent Owner is not challenging that in  
7 this phase of the proceeding, is that right?

8 MR. JONES: Correct. Patent Owner has adopted the same claim  
9 construction. That being said, there is only a universe of two things in  
10 Petitioners, the claim construction offered by Petitioner was one or more of  
11 the rollers is heated to the elevated temperature. Thank you. So that  
12 means --

13 JUDGE ROESEL: Please announce the slide numbers.

14 MR. JONES: So this is Slide Number 19. And this shows the  
15 universe of two possibilities. Under the claim construction provided for  
16 Claim 1 either, there is only one roller heated to the elevated temperature or  
17 there is more than one roller heated to the elevated temperature.

18 So by insisting on this claim instruction there is an admission that  
19 there is disclosure for only one roller being heated. And I can go into  
20 considerably more detail about the support in the '142 patent for the notion  
21 that only one roller is heated. For example, it's called a thermo-roller. The  
22 other roller is only called a counter roller.

23 The counter roller does not have any of its surfaces identified with  
24 reference numbers. There's no reference to its temperature, whereas with the  
25 thermo-roller there is a temperature called out for its surface. Its surface, its  
26 contact surface is labeled. And if we, can we go to slide --

1 JUDGE ROESEL: So could you please, for my benefit, go back?  
2 So we're talking about the motion to amend.

3 MR. JONES: Correct.

4 JUDGE ROESEL: And we're talking about proposed substitute  
5 Claim 24.

6 MR. JONES: Correct.

7 JUDGE ROESEL: Which adds a limitation about how many  
8 rollers are heated, right?

9 MR. JONES: Correct.

10 JUDGE ROESEL: And it says only one.

11 MR. JONES: Only one.

12 JUDGE ROESEL: Right.

13 MR. JONES: The thermo-roller is heated.

14 JUDGE ROESEL: Right. And the dispute about that claim you  
15 say is, what does it focus on, claim construction or written description  
16 support? What is the dispute about --

17 MR. JONES: So the dispute that I'm talking to right now is  
18 whether or not there is support for a limitation of only the thermo-roller  
19 being heated to the elevated contact temperature. Contact surface  
20 temperature.

21 JUDGE ROESEL: Thank you.

22 MR. JONES: So if we can look to the, it's like slide -- okay. So  
23 we're on Slide 16 now. I just want to make a quick point on this slide and  
24 then I can show in the drawings where the support is. There are two  
25 standards in the Board's decision to institute. One standard is for claim  
26 construction, the other standard is for actual written support requirement.

1 And so --

2 JUDGE ROESEL: Well, our Institution Decision didn't address  
3 written description, did it? It, that's in the preliminary guidance.

4 MR. JONES: Correct. Correct. Yes. Well, no, I take it back. In  
5 the decision to institute there was a claim construction argument from the  
6 Board which declined to adopt the one and only one roller from the  
7 disclosure via claim construction. In other words, it was the Board's  
8 position that the claim didn't explicitly say one and only one so the Board  
9 was not going to read that from the spec into the claim.

10 However, in the same section the Board indicated that there is  
11 support. In other words, the Board infers that there is support it's just not in  
12 the claim. So in Claim 24, substitute Claim 24, Patent Owner has put that  
13 element from the specification into the claim.

14 Okay, can we go to --

15 JUDGE ROESEL: And its Patent Owner's position that that, a  
16 new limitation is adequately supported, and please tell us, principally, why is  
17 it adequately supported?

18 MR. JONES: Okay, thank you. So we're going to go to Figure 1  
19 from the '142 patent, please. Okay, so this is Figure 1 from the patent. This  
20 is a substrate. You can connect with this figure, if you think of things like  
21 cereal boxes or sleeves that go around carbonated beverages, there is a  
22 coating with very smooth surface that gets glossy print on the top. And  
23 that's the, where the reference character S is. And by the way, we're on  
24 Slide 2.

25 The other surface on the bottom of Figure 1 is the brown pulpy  
26 looking surface on the inside. Okay? So go to the next slide please? Okay,

1 so this is Slide 3. And this is repeated from what Petitioner just showed.  
2 We don't have any annotations but it's the same process.

3 The thermo-roller, Number 60, is the main item in this IPR  
4 proceeding. If you follow the line that is the web 26 through the thermo-  
5 roller, the hot hard-nip, so is -- item 66 is the hot surface. The hot contact  
6 surface. That is on the bottom of the paper web.

7 So if you follow that bottom surface around the corner on the right,  
8 down to where that reference character 26 is, it's now on the top, where  
9 reference character 26 is, and it winds another corner and comes back on the  
10 bottom before the dryer 38. That's that surface --

11 JUDGE ROESEL: Is that just to fit the figure on the page or is  
12 that how --

13 MR. JONES: Yes.

14 JUDGE ROESEL: -- it's actually the equipment --

15 MR. JONES: I believe it's just diagrammatic, it's not, it may go  
16 through other routings, but these machines usually just go off into the  
17 vanishing point. They're very long machines.

18 The items 40 and 44, as my colleague pointed out, are the coaters.  
19 And one of ordinary skill in the art understands from this diagram that it's  
20 only the bottom surface, the same surface that got into contact with that hot  
21 hard-nip contact surface, is coated. So only the bottom surface gets coated,  
22 then it goes through a dryer. And then again, only the bottom surface gets  
23 coated, and it comes through a dryer. And then the finished product is  
24 wound onto the final reel 50 where it can be shipped out.

25 So, one of ordinary skill in the art would be completely  
26 comfortable recognizing from Figure 1 and Figure 2, and the accompanying

1 text, that it's only the one side that gets the heat treatment from the thermo-  
2 roller. The contact roller side is not temperature-controlled or sensitive or  
3 doesn't play a role. It doesn't get any coatings and it's not ultimately going  
4 to be printed on.

5 JUDGE ROESEL: Was this argument made in the briefs?

6 MR. JONES: Not word-for-word, but it is -- so, all of our MTA  
7 related papers have made this argument, starting from the first paper.

8 Okay. So I think, unless, well, I think unless the Board has  
9 questions about, any further questions about Claim 1 and Claim 24 then I  
10 will move --

11 JUDGE ROESEL: Were there other disputes about Claim 24?

12 MR. JONES: There's a similar, I would say prior art allegations in  
13 the Petitioners' responses to the MTA. They're similar to the arguments  
14 made with respect to Claim 1, in that regard. And Petitioner's -- or Patent  
15 Owner's responses are largely similar to the dispute with Claim 1 as well.

16 So, to take a step back now to similar items that are kind of general  
17 to the claims, it's important to understand the apical or apex status of Fugitt  
18 Example 3. There is an interplay between the basis weight of the caliper and  
19 the smoothness in Fugitt Example 3 that are not attained in the other  
20 references cited in this proceeding. And so what we come to, whether we're  
21 talking about Claim 24 or Claim 1, what we come to is the idea of, why  
22 would you overcook what's in Fugitt using teachings of high temperatures  
23 from these other references.

24 So we're looking now at Slide 12, which I positioned the text here  
25 to kind of diagram what would be the simple substitution of a temperature  
26 from all the references on the right into the Fugitt Example 3 on the left.

1 Fugitt Example 3 is in this proceeding because it's got caliper, it's got basis  
2 weight, and it's got smoothness that fall in the range claimed in Claim 1.  
3 But what Fugitt is missing is the temperature.

4 And these other references on the right, Papermaking, Gratton,  
5 Marley, Zakaib, they list high temperatures within the text. However, none  
6 of them have the paperboard properties of Fugitt. It's a sort of mutually  
7 exclusive situation. And, in fact, there are -- I guess you would call it  
8 teachings against where, for example, in Gratton they ran test-mill tests, like  
9 the test-mill tests that Patent Owner ran in the '142 patent, for the six  
10 examples.

11 You can take paperboard material and run it through a test-mill and  
12 use different nip loads and temperatures to see what happens. And in  
13 Fugitt -- sorry, in Gratton, the tables, Table 2 and Table 3, show the test  
14 results for the trials that Gratton ran. And the trend, as has been pointed out  
15 in Mr. Klass' recent declaration, the trend is that the hotter you run the  
16 temperature on the thermo-rollers the worse your smoothness gets.

17 And so, there was some talk from Petitioner earlier about  
18 obviousness of using higher temperatures, sort of the higher the better. But  
19 the problem is, there's a tradeoff. When you use the high temperatures and  
20 the data in these tables of Gratton shows that as you continue to increase the  
21 roller temperature, you end up with bulkier paper, yes, but at the cost of  
22 smoothness.

23 So an advance in this art takes the established tradeoff between  
24 bulk and smoothness. You can have one or the other or you can  
25 compromise. But you're in a sort of status quo situation until someone  
26 comes along and invents something that moves it all up to a higher status

1 quo of the tradeoff between basis weight and RO, between bulk and  
2 smoothness.

3 JUDGE ROESEL: But Patent Owner doesn't disagree that Fugitt  
4 Example 3 is -- has desirable properties?

5 MR. JONES: Agree. In fact --

6 JUDGE ROESEL: That one of ordinary skill in the art would have  
7 been motivated to try to replicate those properties?

8 MR. JONES: So, I would agree with the statement that those are  
9 very good quality -- very good results. And perhaps I could even agree that  
10 it would be desirable to exceed those results if you had a guide to do so.  
11 Some promise, someone else who was in the neighborhood, or something  
12 like that.

13 JUDGE ROESEL: But it would be at least desirable to get as good  
14 as the Example 3 properties, right?

15 MR. JONES: Agreed.

16 JUDGE ROESEL: Right. So if the person of ordinary skill in the  
17 art is striving to get those properties, why wouldn't he use like a middle of  
18 the road steam-heated roll temperature like 250?

19 MR. JONES: Well, I supposed the burden is on Petitioner to tell  
20 us whether that would even work. What would happen if you ran, take  
21 everything as Fugitt described it and turn up the temperature to 250 and tell  
22 us what comes out of that --

23 JUDGE ROESEL: Yes, but I -- that's where I guess they turn up  
24 the temperature, Petitioner has argued, increase the temperature. I'm so  
25 confused by that because it teaches steam-heated rolls, right? So, and 250 is  
26 in the middle of the range for steam-heated rolls surface temperature, so why

1 not pick 250? I don't get it.

2 MR. JONES: I guess the question is -- I think the assumption  
3 underlying the question is that there's a dial that you can turn the  
4 temperature up and get whatever temperature you want. But the question is  
5 raised, can the Mohan process even reach 250 degrees. Papermaking  
6 discloses -- the range of steam temperature that we're talking about is from  
7 Papermaking. But Papermaking also discloses very high temperatures. Up  
8 into the 400s. And some of these references even have temperatures up into  
9 the 500s.

10 JUDGE ROESEL: That's for other media, right? For oil or  
11 induction heating.

12 MR. JONES: Correct. You'd have to use something other than  
13 steam to get those temperatures. But even within the regime of steam, there  
14 are some temperatures that are very high. It was a very high end of that  
15 range. In other words, you can use steam heating below 250 degrees. And  
16 Fugitt did not say where in that range they were operating. And Petitioner  
17 hasn't proven that Fugitt was operating above that range.

18 And you run into these combination problems when you try to pull  
19 references, temperature references out of Papermaking or the other  
20 references to inform like what temperature could Fugitt have been operating  
21 at, it's a matter of speculation. There's no proof. Fugitt simply didn't say.

22 JUDGE ROESEL: But aren't we in the regime where the claim  
23 says 250 and above, the prior art says, well, for steam-heated rolls you've  
24 got this, I can't remember the lower end, but the upper end is 338, right? So  
25 these are overlapping ranges and so that's prima facie. There has to be some  
26 counter evidence to show that wouldn't be obvious, right?

1 MR. JONES: Correct. So there has to be a motivation to combine.  
2 So you got a prima facie partial overlap in the range. But there's also got to  
3 be a stated motivation to combine. And when you take these references as  
4 a -- for everything that they disclose, you end up with confusion.

5 JUDGE ROESEL: Well, why isn't the motivation simply, well,  
6 Papermaking is a treatise, it teaches what temperatures you can run steam-  
7 heated rolls at, you know? That's --

8 MR. JONES: So there is a --

9 JUDGE ROESEL: Isn't that enough?

10 MR. JONES: There's a question of overbaking. So in the  
11 interplay between caliper, basis weight and smoothness, if you change your  
12 process and, so for example, if you're in Fugitt we don't know what  
13 temperature Fugitt was operating at. But if we assume for a moment that  
14 they were operating in the lower half of the steam regime and they had to  
15 move up the temperature in order to get into the claimed range, then you're  
16 going to have to make some kind of other adjustments because you're going  
17 to affect the basis weight. You're going to affect the caliper. And that's  
18 going to affect, those two things in the ratio are the bulk.

19 So there's no straightforward explanation. And Petitioner, it's the  
20 Petitioner's burden to show proof of what would happen, what temperatures,  
21 you know, what happens, does it matter, if you're -- to the point of the  
22 Board, does it matter whether you're in the lower half of that range or the  
23 upper half of that range, does it make any difference?

24 There's nothing in the record, there's nothing the Petitioner has  
25 brought to evidence what happens at these different temperatures with the  
26 process in Fugitt. And the normal thing to do would be to run it through one

1 of these test machines like Fugitt did and like Patent Owner did, and Gratton  
2 and the rest of them. And like, run it and tell us what happened. But there's  
3 no such proof in this case.

4 So this kind of dovetails into my next talking point which is that a  
5 few minutes ago it was discussed, what is the central proposition of the  
6 petition. And the Board expressed some confusion. And frankly, Patent  
7 Owner has expressed the same confusion from the first preliminary response  
8 and the response after institution.

9 It's really not been clear to us what exactly are you modifying in  
10 Fugitt, in the petition? Is this a matter, is this a question of, you're removing  
11 their calender, physically replacing it with another calender. Is this a  
12 question of just changing temperatures in Fugitt until you get an anticipatory  
13 result?

14 It's not really been clear, so Patent Owner has been in a position of  
15 having to sort of decide what --

16 JUDGE ROESEL: Well, the answer we got was all of the above, I  
17 guess. So I guess we have to consider all of the above. Everything that's  
18 asserted in the petition, which includes, I think, replacing the media.

19 MR. JONES: Right.

20 JUDGE ROESEL: The heating media.

21 MR. JONES: Replacing the heating media, replacing the physical  
22 rollers. Mr. Klass did a very detailed write-up of what would have to change  
23 if you were going to do the physical change. Including different scenarios of  
24 what you're starting with, different scenarios of what utilities are available.  
25 And he gave a price range of what the capital costs would be for the  
26 modification, or what we would call a retrofit.

1           And so there's a considerable capital cost if you're going to do the  
2 physical change. And even if all you're going to do is change a temperature  
3 or, you know, so some of the confusion comes from the fact that sometimes  
4 we're talking about steam when we're talking about Fugitt, sometimes we're  
5 talking about things much hotter than steam. But those hotter things require  
6 energy, ongoing energy costs. And these are considerations that one of  
7 ordinary skill in the art would have before doing any of the kinds of  
8 modifications that we're arguing about.

9           So, I wanted to give some extra explanation about temperature  
10 increasing leading to higher bulk. So, what you're doing when you're  
11 increasing the temperature is it's, in one sense you could say it's actually the  
12 reduction of nip loads that gives you the bulk. So when you increase  
13 temperatures you can lower your nip load through the temperature gradient  
14 process.

15           JUDGE ROESEL: And that was known in the art?

16           MR. JONES: I think that's pretty well established, yeah. In  
17 various contexts and in various, so for example, you can find it in Gratton  
18 with the two heated rollers. You can find it in Papermaking with different  
19 kinds of paperboard -- not paperboard but other kinds of paper products.

20           But what happens is, you don't -- you would have to make other  
21 adjustments in the process. If you change the temperature, you got to reduce  
22 the nip load. And so I wanted to provide a little bit more context for that.

23           JUDGE ROESEL: Well, the question really is whether if you  
24 make those changes to the Fugitt process whether you're going to get  
25 properties that fall outside the claimed ranges on the smoothness and the  
26 basis weight. And I heard Petitioner argue that the smoothness would only

1 increase and the basis weight would remain unchanged because you're still  
2 just putting the same amount of material through the process. And so I  
3 understand that basis weight is weight per area, so that wouldn't change. Is  
4 there any aspect of that you disagree with?

5 MR. JONES: So I might have to hit that one point at a time, if you  
6 can walk me through it? So --

7 JUDGE ROESEL: Well, he said, first of all, smoothness would  
8 only improve with increasing the temperature and decreasing the nip load.

9 MR. JONES: Okay, I don't agree with that. I don't know that  
10 that's been proven. Gratton shows that increasing the temperature and  
11 reducing the nip load worsens the surface finish, the smoothness.

12 So there was a point about, what is basis weight. It's a measure,  
13 it's a mass measure, but it's by area. So it's a mass divided by area. So, in  
14 the United States we use pounds per ream. And in the SI system they use  
15 grams per centimeter squared. So, were there more questions?

16 JUDGE ROESEL: Yeah, so the question about that is, you know,  
17 the basis weight in the claim is it's got to be below the Y2 or Y3 curves,  
18 right?

19 MR. JONES: Yes.

20 JUDGE ROESEL: So, the question is, if you increase the  
21 temperature of the roller and decrease the nip load, whether that's going to  
22 affect the basis weight in a way that changes whether it's below the Y2 or  
23 Y3 curves?

24 MR. JONES: So I think generally we've assumed, both parties I  
25 believe, have assumed that basis weight doesn't change much because that's  
26 the, that's the sort of a measure of how much fiber is there. And I guess

1 unless you were going to elongate the web, and I'm not qualified to say  
2 whether that elongation happens or not, but as long as there's no elongation  
3 you could assume that basis weight stays the same through whatever nip  
4 process you put it in. So what really changes is the caliper.

5 When you run a web through a hard nip, it's pressed. And that  
6 pressing is a reduction in caliper. And in the more aged processes, like the  
7 calender shown in Fugitt, and there's another reference that we've talked  
8 about, Mohan, they show these stacks of calenders. And the paper winds its  
9 way through the stack.

10 And each time it goes through one of those nips it gets pressed a  
11 little bit more. And you hope that as it goes through a nip it compresses and  
12 then uncompresses and then compresses and uncompresses. Each time it  
13 uncompresses a little less and the paper coming out has the desired caliper.  
14 And so, and the more you nip load it the smoother it tends to get.

15 So are there -- did I hit all of the questions?

16 JUDGE ROESEL: I think so.

17 MR. JONES: Okay. So we wanted to talk just briefly about the  
18 Number 12.2. I believe what we just heard, I think it was the first time I  
19 really understood the process that Petitioner used to arrive at that number. I  
20 think what Petitioner has said is that 12.2, they could have gone further, but  
21 they stopped at 12.2 because that was the first value below the -- that they  
22 got that was below the curve. The Y3 prime curve in the case of Claim 23.

23 So it's -- we've noted, we're on Slide 14 right now. We've noted  
24 that, when arguing Claim 1, Petitioner just used 12 point -- caliper points as  
25 in Example 3 of Fugitt. When they argued versus Claim 21, they used 12 as  
26 the -- from the Example 3 as their caliper value. And same thing in Claim

1 22, they used 12 caliper points.

2 And each one of these claims has a different curve. Claim 1 has a  
3 Y2 curve and Claim 21 has a different curve and Claim 22 has a different  
4 curve. But when you come to Claim 23 yet another different curve.  
5 Suddenly the numbers change to either 12.2 or 14.2, depending on where  
6 you're reading the record.

7 I don't believe Petitioner ever made the argument about the 14.2  
8 caliper points in any of their papers in this proceeding, however, there is a  
9 considerable amount of information using that number in the original  
10 declaration from Mr. Carl Zotterman. So that wasn't, I guess, depended on  
11 in any arguments.

12 But the 12.2 number, it's a departure from the pattern in the  
13 arguments leading up to Claim 23. And I believe that the process of  
14 selecting a number that's just under the curve is basically the epitome of  
15 hindsight. That is what hindsight reasoning, that's how hindsight reasoning  
16 works.

17 And the .2 points, the 0.2 points difference between 12 and 12.2,  
18 they matter. These curves, Y2, Y2 prime, Y3, Y3 prime, they're very close  
19 together. They're -- Patent Owner, the inventors were basically claiming  
20 slightly narrower scope with each succeeding claim from Claim 1, 21, 22  
21 and 23. So the very small amounts actually matter if, you know, under the  
22 concept of claim differentiation, so.

23 (Pause.)

24 MR. JONES: We might take one moment to talk about the Zakaib  
25 reference.

26 (Pause.)

1 MR. JONES: Okay, we're on Slide 22.

2 JUDGE ROESEL: So please remind me what does this pertain to.  
3 Oh, this is the Motion to Amend.

4 MR. JONES: Correct. This reference was not part of the petition.  
5 Patent Owner's expert, Mr. Klass, introduced this reference into the record in  
6 one of his declarations and Petitioners have applied it to obviousness  
7 grounds in their response to the merger -- the Motion to Amend.

8 So Zakaib discusses inductive heating systems for calender rolls  
9 and there's an emphasis in Paper 43, Page 9, and I believe that this slide  
10 maintains the exact emphasis, so there's this, the word single is underlined,  
11 top roll is underlined, single nip is underlined.

12 And I think that the argument, to the extent I understand it, the  
13 argument is that this supports an argument that only one roller is heated.  
14 However, this is an instance where if you read the reference very carefully,  
15 looking for an explicit statement that one and only one roller is heated, it's  
16 simply missing, and these drawings, the drawings on the bottom of Slide 22  
17 are taken from the Zakaib reference.

18 You can see on the left, you can see the induction heating system,  
19 but the circles that represent the rollers in the nip are empty. There's no  
20 information about whether they are heated or not, whether the inductive  
21 roller, the one with the inductive heater, has a second heating system inside  
22 of it. It's just, it's silent, it doesn't say.

23 Similarly, in the middle diagram, this is for, I believe, Case B is  
24 what the reference Zakaib refers to it as. There's a CalCoil, that's an  
25 induction heater on the top, the sort of rectangular object. There's a hard, no  
26 internal heating roll. So we know on that one that there's no internal heating

1 because it specifies.

2 Below that, we don't know whether there is heating or not because  
3 it says hard or soft. It doesn't say no internal heating or internal heating  
4 specified, it just doesn't say. Finally on the right there is a stack of calenders  
5 that uses two induction heaters, CalCoil induction heaters.

6 And so both of those rolls are heated, so more than one roll is  
7 heated, and then some of the rolls have steam. So, suggesting that the use of  
8 steam in one roller and an inductive heater in the other roller, or two  
9 inductive rollers, it's -- those are all contemplated, but the one thing that we  
10 don't see is an explicit disclosure that one roller is heated and the other roller  
11 is not heated.

12 JUDGE ROESEL: So why wouldn't the ordinarily skilled artisan's  
13 view of this reference be similar to what you argued regarding the -- when  
14 you were arguing about written description you said that this process that is  
15 illustrated in the patent, you know, because the paper is only coated on one  
16 side so the ordinarily skilled artisan would assume that it's only heated on  
17 one side, why doesn't that apply to Zakaib?

18 MR. JONES: Well, we don't have the coaters. If you recall from  
19 Figure 2 in the '142 patent, we don't have any coaters. We don't have the  
20 Figure 1 which shows the coatings on one side. We don't have -- can we go  
21 back to the Zakaib slide?

22 JUDGE ROESEL: But I mean is all of these different grades of  
23 paperboard, cartonboard, aren't they all just coated on one side?

24 MR. JONES: Good question. They are not. So you can coat both  
25 sides if you want to print, for example if you want to have print on the  
26 outside and inside of a container. It's just that I think they tend to not print

1 on the inside of the container where it's not going to be seen, but yes, in  
2 theory you can coat -- and that, in fact, is what the Gratton reference is  
3 disclosing is heating on both sides so you could coat and print on both sides.

4 So the question is, I think the question is, is Patent Owner doing a  
5 double standard by saying that silence in the '142 patent is support and  
6 silence in the Zakaib reference is non-disclosure. I think -- I just don't think  
7 it's that simple because there is actually proof in the record and the Board  
8 has already inferred that there's support in the '142 patent.

9 When we're looking at Zakaib we are not looking for support for a  
10 claim, we're looking for support for grounds of rejection and we're looking  
11 for proof that Petitioners have met their burden. And a reference that doesn't  
12 say something, you can't use it to prove something, what the something is.

13 I knew that question was going to come up because it does seem  
14 like, you know, in one instance we're arguing one thing and then we're  
15 switching arguments, but --

16 JUDGE ROESEL: Well, the legal standards are different.

17 MR. JONES: Right.

18 JUDGE ROESEL: Obviousness versus possession.

19 MR. JONES: Right. And that's -- I think that's probably the  
20 simplest answer to the question is that when you look to the content and are  
21 applying the correct standard for the question, you know, of support versus  
22 the question of disclosure you're going to reference, we're both dealing with  
23 the word disclosure but the legal standards are different enough and the  
24 documents are different enough to make it clear that there's support in the  
25 '142 patent for one and only one roller being heated, but there is no actual  
26 teaching of one and only one roller being heated in Zakaib.

1           So, unless there are other questions from the Board -- Scott, did  
2 you want to confer? Can I confer -- I'm going to --

3           JUDGE ROESEL: I'll stop the clock for one moment.

4           (Pause.)

5           MR. JONES: Okay. Do we have a slide for Claim 25?

6           PARTICIPANT: Twenty-three. Slide 23.

7           MR. JONES: Okay, this is Slide 23. So there is a nip load in  
8 original Claim 22, sorry, in original Claim 2, which is a broad claim and it's  
9 a broad range, and Petitioner has spoken about that this morning.

10           Claim 25 also has a nip load. It's basically a modified version of  
11 original Claim 2 with a narrower nip load recited. And -- the issue with the  
12 nip load in Claim 25, substitute Claim 25, is that none of the references  
13 actually disclose that range.

14           Arguably, Marley may, however, Marley was not part of the  
15 original petition and -- oh, I'm sorry, I'm misspeaking. Marley wasn't part of  
16 the original petition. It's available as a reference against the MTA claims,  
17 however, the temperatures in Marley are like the temperatures in Gratton.  
18 They're -- in fact, I think Marley's got the highest temperatures in the record.

19           In the middle of the slide there you can see the 572-degree  
20 Fahrenheit figure. That's so far beyond the steam temperature of Fugitt that  
21 it is really unclear what would even happen if that kind of temperature was  
22 applied. It would be a very major departure from the teachings of Fugitt.

23           And, again, we've got this bullet point here for the leeway. This  
24 morning Petitioner argued that essentially the smoothness in Fugitt is so  
25 good, it's 1.5, it's so good that you can lose smoothness all the way down to  
26 3.0 and still read on these claims.

1 But the question then is, why would you want to lose any  
2 smoothness. What would be motivating about that? So I guess I'm asking  
3 that as a rhetorical question. I'll state it more clearly. Patent Owner's  
4 position is it would not be obvious to one of ordinary skill in the art to give  
5 up smoothness that they've achieved through a process taught by Fugitt.

6 And the Board has already raised the issue about the rationale for  
7 combining Marley and Fugitt in Paper 28, which I believe is the preliminary  
8 guidance.

9 (Pause.)

10 MR. JONES: Okay, so let's talk briefly about Claims 26 and 27.  
11 Can you scroll up a little bit more? It's Slide 24, I believe. Yes, Slide 24.  
12 So, the point has been made this morning that Fugitt is not technically  
13 limited to steam, but this is another instance where lack of disclosure on the  
14 part of a prior art reference does not make a good grounds for rejection or  
15 invalidity.

16 Fugitt's not going to support a grounds of obviousness based on  
17 what it doesn't say or what it doesn't limit itself to. There's nothing in the  
18 four corners of Fugitt that contemplated other modes of heating, they just  
19 made a passing mention of steam and it's even kind of a permissive thing, it  
20 may be steam heated.

21 And so, this is, again, the third bullet here is a repeat from the last  
22 slide. The same question about Marley comes in to Claims 26 and 27. The  
23 temperatures in these claims are much higher than the 250 and they move  
24 the ball considerably with respect to Fugitt and papermaking in Gratton and  
25 the other references.

26 So I think I'm about ready to wrap up unless the Board has any

1 questions. Are there any questions from the Board about the MTA that we  
2 can discuss?

3 JUDGE ROESEL: Well, as I understand it, the Motion to Amend  
4 you've proposed Substitute Claims 24 through 27 to replace Claims 1, 2, 5,  
5 6, and 7, I believe, and so each of those is contingent and there's no proposed  
6 substitutions for the other claims?

7 MR. JONES: Correct.

8 JUDGE ROESEL: Okay.

9 MR. JONES: And I would also say, I don't have them in front of  
10 me but I would also say there's a claim dependency. So for the dependent  
11 claims, they don't depend from Amended Claim 24, they depend from  
12 Original Claim 1, if I am not mistaken, but it's --

13 JUDGE ROESEL: Right. So there's no -- it's because there is no  
14 proposed substitution for the other dependent claims they would remain  
15 dependent from Original Claim 1?

16 MR. JONES: Correct. Correct. Okay. I will rest my case until  
17 rebuttal unless there are other questions.

18 JUDGE ROESEL: Okay. You have ten minutes remaining which  
19 will be added to your 15 you reserved.

20 MR. JONES: Thank you.

21 (Pause.)

22 MR. MEYERS: Okay. Thank you, Your Honors.

23 JUDGE ROESEL: You may begin when you're ready. You have  
24 21 minutes, and I just want to remind you to confine your arguments to  
25 responding to what the Patent Owner argued.

26 MR. MEYERS: Thank you. Okay, so getting back to the core

1 issue here, this case is about temperature and the prior art instructs that the  
2 control parameters are linear pressure between the nip and the roller surface  
3 temperature.

4 So in the Motion to Amend we heard some information about this  
5 being a universe of two possibilities, only one roller or more than one roller.  
6 It's easy to say that there are two possibilities when one is what you're doing  
7 and the other possibility is every other possible parameter in the system,  
8 like, for example, we have two rolls and three rolls both disclosed in the '142  
9 patent and the claims are not limited to a specific number of nips or a  
10 specific number of rolls. It's open-ended comprising language in the  
11 specifications disclose two or three rolls.

12 Also, with respect to temperature, by saying that --

13 JUDGE ROESEL: Okay, I'm sorry, I'm not following your  
14 argument about the universe of possibilities.

15 MR. MEYERS: There's more -- we're saying there's more than  
16 two possibilities.

17 JUDGE ROESEL: Okay. And how does that impact an issue that  
18 we have to decide?

19 MR. MEYERS: I'm sorry? Support.

20 JUDGE ROESEL: Okay.

21 MR. MEYERS: They're saying support for the claims, right, you  
22 know, and there's only two possibilities, only one roller and more than one  
23 roller.

24 JUDGE ROESEL: And you say that the specification lacks  
25 support for only one roller?

26 MR. MEYERS: No. I'm saying that it's not limited to more than

1 one roller. There's more than two possibilities here. So we're not talking  
2 about a universe of two possibilities, we're talking about a universe of  
3 multiple possibilities.

4 JUDGE ROESEL: Okay. And link that up, please, to your written  
5 description argument.

6 MR. MEYERS: Okay. So, they're saying it's such a small  
7 universe one of ordinary skill in the art cannot miss the fact the inventors  
8 possess or disclose both possibilities.

9 I think we just have to ask ourselves how hot or how cool can the  
10 counter roller be. Based on the breadth of this claim, the counter roller can  
11 be -- The only limitation on the counter roller is it cannot be the exact same  
12 elevated temperature as the thermo-roller.

13 The counter roller may be 200 degrees, the counter roller may be  
14 50 degrees, the counter roller could be hotter.

15 JUDGE ROESEL: Wait. So you're arguing that there are more  
16 possibilities than simply two, but how does that show that the inventors lack  
17 possession of heating only one of the rolls?

18 MR. MEYERS: Because none of that is disclosed in a  
19 specification. None of that is disclosed in a specification. Their expert even  
20 said that the counter roller may be cooled and if the claims encompass all of  
21 this, there's just no support for that.

22 JUDGE ROESEL: Okay. What about Mr. Klass' interpretation of  
23 the examples in the specification? I believe he read those examples and  
24 testified that the ordinarily skilled artisan would understand that only one of  
25 the rolls was heated.

26 MR. MEYERS: They would understand that Mr. Klass did? I

1 thought Mr. Klass was looking at the prior art references and saying you  
2 cannot tell whether one roll or two rolls were heated in the prior art  
3 references. Are we talking about like with the Zakaib example?

4 JUDGE ROESEL: I thought we were talking about written  
5 description support.

6 MR. MEYERS: That's right.

7 JUDGE ROESEL: Yeah. So what -- he looked at the examples in  
8 the challenged patent. I may be mis-remembering it, but I remember we  
9 relied on testimony from Mr. Klass that one would understand those  
10 examples as having only one of the rolls heated.

11 MR. MEYERS: Well, the examples --

12 JUDGE ROESEL: If I'm wrong please correct me.

13 MR. MEYERS: Yeah, but the examples do not say either way as  
14 well.

15 JUDGE ROESEL: Right, but the ordinarily skilled artisan reading  
16 those examples and also taking into account the pre-calender roll versus the  
17 gloss roll.

18 MR. MEYERS: Well, first of all, Your Honor, I don't think there  
19 would be anyone that would take into account the gloss calender in trying to  
20 determine characteristics of the pre-calender. They're completely separate  
21 devices in completely different spots to the process.

22 They are not substitutes for one another. You know, all the  
23 Novartis factors come into play there. For example, why would you want to  
24 make the roll glossy before you coat it?

25 JUDGE ROESEL: But that's not the point. The point is how  
26 would one of ordinary skill in the art understand the description, when the

1 description talks about the calender, the pre-calender roll, as having a  
2 thermo-roller and a counter roller, is that right?

3 MR. MEYERS: That's right.

4 JUDGE ROESEL: Am I remembering that --

5 MR. MEYERS: That's right.

6 JUDGE ROESEL: Whereas the description of the gloss roller it  
7 talked about, I think it used the plural, heated rolls, something to that effect.

8 MR. MEYERS: That's right.

9 JUDGE ROESEL: So it's the juxtaposition of that different  
10 language in the specification and how, you know, the skilled artisan who  
11 knows these processes how they would understand that. He's not saying one  
12 is the same as the other or they could be interchangeable or anything like  
13 that, it's just how do you understand what's described.

14 MR. MEYERS: He is saying, I think he's saying the fact that one  
15 was just describing the plural and one is describing in the singular. I don't  
16 think that rises to the level of written description with respect to the singular  
17 because there are just too many variables at play.

18 Even their expert said that counter roll could be cooled in his first  
19 declaration. So when you have a situation where you have the -- and we've  
20 also heard the counter roller being described as unheated. That's not claimed  
21 either. The counter roller could even be hotter and still read on that claim.

22 The only limitation is that the counter roller is not heated to the  
23 elevated temperature. And there's only one sentence in the specification that  
24 addresses that and there's a whole lot of different possibilities that could go  
25 on that they're relying on support just for that one sentence in the  
26 specification saying the thermo-roller is heated and then you have a counter

1 roller.

2           So you ask yourself if they're claiming or if the specific  
3 temperatures read on what the counter roller can and cannot be, there's just  
4 nowhere in the specification to guide you as to the parameters of what the  
5 counter roller can and cannot be.

6           JUDGE ROESEL: Okay, if, let's just assume for sake of argument  
7 that the ordinarily skilled artisan would understand that example as having  
8 only one of the heated, one of the rolls heated in that pre-calender, and that  
9 is the thermo-roll is heated and the counter roller is not. If that's how one of  
10 ordinary skill in the art understands that example, is that enough for written  
11 description support?

12           MR. MEYERS: No. Did you say were the thermo-roller is heated  
13 and the counter roller is not heated?

14           JUDGE ROESEL: That's correct.

15           MR. MEYERS: No, because that's not what the claim says. The  
16 claim says the counter roller is not heated to the elevated temperature. So if  
17 you have a counter roller that is cooled that reads on that claim. If you have  
18 a counter roller that's heated that reads on that claim. If you have a counter  
19 roller that's even hotter than the thermo-roller that reads on that claim.

20           So the claim is way too broadly written to fit within that example  
21 that you just proposed.

22           (Pause.)

23           MR. MEYERS: Because there's a lot that could go on with that  
24 counter roller that meets the claim limitations, right? The only restriction is  
25 the counter roller can -- so, maybe say the thermo-roller the elevated  
26 temperature is 250, the only restriction on the counter roll is it cannot be

1 250.

2 So I think the first time we heard unheated was in the preliminary  
3 guidance and that's just not what the claim says. The claim says the counter  
4 roller cannot be heated to the elevated temperature, so that leaves a range  
5 that's just -- that we believe, of course, is broader than what is described in  
6 the specification, when the specification is silent as to that.

7 You know, there's this inherency argument, but, you know, I don't  
8 think inherency applies there either. You can't say that the specification  
9 necessarily discloses that, you know? An inherency can't be based on  
10 possibilities and inherency can't be based on probabilities, you know?

11 Is it possible that the counter roller is heated to 240 or is it possible  
12 that the counter roller is actually cooled and is it possible that, you know --  
13 so I don't think inherency gets them there.

14 JUDGE ROESEL: So it's Petitioner's position that the written, it  
15 would have had to describe all of those things in order to get this claim, a  
16 heated, an unheated counter roller, a cooled counter roller, in order to get the  
17 claim that they're --

18 MR. MEYERS: Well, Your Honor, it would certainly be more.  
19 You know, our position is it would certainly be more, more description  
20 would be required. And, you know, it would be debatable if you said the  
21 thermo-roller could be heated from, you know, ambient temperature to 300,  
22 you know, and does that support 275, you know? I don't know, but, you  
23 know, we're not faced with that today with respect to the counter roller.

24 If they said, you know, if they had the counter roller can be cooled  
25 or the counter roller could be heated, the counter roller is less than, you  
26 know, the elevated temperature, the counter roller is unheated, all that's

1 different than the counter roller is just simply not heated to the elevated  
2 temperature.

3 If they say the counter roller is supposed to be less than the  
4 elevated temperature, you know, we may be talking about something  
5 different here, but that's just not what the specification says. The  
6 specification is just silent, so we just don't think there's written support for  
7 this new claim feature concerning the counter roller there.

8 And like we said, you certainly wouldn't look to the gloss type  
9 calender from a technical standpoint and we don't think it's enough to say,  
10 well, if they're talking about a completely different item on a completely  
11 different spot in the specification and they mention plural rolls, you know,  
12 what if they mention plural -- what if they said with respect to the size press,  
13 which is early on, or the wet press, which is right after the screen, you know,  
14 and the wet press rolls aren't heated, I don't think one with ordinary skill in  
15 the art would say, wait, they said rolls there so they must be talking about  
16 rolls, singular, when they talk about the pre-calender.

17 So, you know, I feel like we're getting into a situation of where the  
18 Patent Owner is bouncing back and forth from what's complicated and  
19 what's not complicated. They're like, oh, it would be obvious if the counter  
20 roller is heated and then we get in a situation where they say this is, they say  
21 really, this is something you have to be very careful with or you'll blow up  
22 every feature of the example of Fugitt, so there's a little bit of inconsistency  
23 there.

24 But, you know, with respect to that, you know, the specification is  
25 just completely silent regarding those variables.

26 JUDGE ROESEL: So how does Petitioner respond to Patent

1 Owner's argument about Zakaib?

2 MR. MEYERS: Okay.

3 JUDGE ROESEL: Patent Owner's Slide 22.

4 MR. MEYERS: Slide 22, that's Zakaib. We can talk about that.

5 It's very interesting because it appears that Slide 22 with respect to heating a  
6 thermal -- I'm sorry, let me -- with respect to heating a thermo-roller and  
7 counter roller that Zakaib has more disclosure, if you want to talk about  
8 inherency, especially it has more disclosure than the '142 patent.

9 And when Patent Owner's expert was asked if you could take a, if  
10 you looked at Zakaib, can you tell whether one roller is heated or not and he  
11 said, no, you cannot tell. So if you can look at Figure 1 and not tell whether  
12 one roll is heated or not, with more disclosure than the '142 patent it seems  
13 like it even, it helps our case in showing that there's just no written  
14 description, adequate written description as to whether or not, well, what to  
15 do with the counter roller with respect to our claims.

16 We heard that the roll is empty, it's silent, it's just not there. That's  
17 the same situation as the '142 patent, it's silent and it's just not there.

18 (Pause.)

19 MR. MEYERS: And I could add one thing as well, if we want to  
20 shift gears just a little bit with respect to the hindsight reconstruction  
21 argument in 12 and 12.2, one thing that was not mentioned is the example of  
22 12 has the word about in it.

23 You know, so we're not talking about 12.0, the caliper is about 12,  
24 and given the expectation that it -- that you would expect caliper to increase  
25 much more than 1.6 percent when it's heated, that in combination with 12.0  
26 is not a static disclosure, it is open-ended or at least variable with respect to

1 the word "about." The 12.2 is certainly reasonable and certainly not  
2 hindsight reconstruction.

3 (Pause.)

4 MR. MEYERS: I'm sorry. May I confer for just one second,  
5 please?

6 JUDGE ROESEL: Certainly.

7 (Pause.)

8 MR. MEYERS: Okay. Your Honor, I just wanted to ask the  
9 Panel, are there any other questions? And I think we're ready to rest.

10 JUDGE ROESEL: Okay.

11 MR. MEYERS: Thank you for your time. Are we good, Judge  
12 Ross? Are we good Judge Kaiser?

13 JUDGE ROESEL: I see no questions.

14 JUDGE KAISER: Yes. Thank you.

15 MR. MEYERS: Awesome. Thank you.

16 (Pause.)

17 JUDGE ROESEL: You may begin when you are ready.

18 MR. JONES: Okay. Thank you. So, most of the rebuttal was  
19 regarding support for the substitute claims. There are a couple things to look  
20 at. So the operative term in Claim 1 and in Claim 24 is nip. There are only  
21 two rollers in a nip and what is claimed as a hot hard nip.

22 So when we're talking about at least -- so when we say one or more  
23 rollers, where the antecedent basis is the thermo-roller and counter roller in a  
24 nip, there is a universe of two. It's true that there's another embodiment  
25 disclosed in the '142 patent that has two counter rollers against the same  
26 thermo-roller, but each place where the paper passes between two rollers is a

1 nip and a nip only has two rollers in it.

2 JUDGE ROESEL: Yes, but I think the Petitioner was taking issue  
3 with the Board's characterization of the claim as encompassing, you know,  
4 one heated roller and one unheated roller. And it's true that the language in  
5 the proposed substitute claim is that the counter roller is not heated to the  
6 elevated temperature, which Petitioner says, you know, that's a very narrow  
7 limitation, and so that means it could be heated to a temperature other than  
8 the elevated temperature recited in the claim.

9 MR. JONES: Okay. So, to respond, I want to look at some of the  
10 language from Claim 24. So this is Slide 15. I think there's an undo amount  
11 of focus on that word not. So what we have is a contact surface of only said  
12 thermo-roller is heated to an elevated temperature of at least 250 degrees F  
13 and wherein the counter roller is not heated to the elevated temperature.

14 It's an attempt to be perfectly clear. The thermo-roller has a  
15 heating system. Its temperature, its contact surface is heated to the elevated  
16 temperature, 250 or at least 250. The counter roller simply is not.

17 Again, with the universe of two, a nip has two rolls. In this case  
18 it's a thermo-roller and a counter roller. Petitioners have made their bed in  
19 the sense that they insisted on a claim construction for Claim 1 that includes  
20 one or more of the two rollers in the nip are heated.

21 So Patent Owner has been stuck with that and we've worked with it  
22 for Claim 1, but for Claim 24 we're saying if we've got disclosure, and  
23 Petitioners have given us that disclosure through their claim construction, of  
24 one or more of the rollers in the nip are heated, then Claim 24 will be  
25 dedicated to the embodiment where only the thermo-roller is heated, in other  
26 words the one.

1 JUDGE ROESEL: So, bottom line is Patent Owner believes that  
2 the Board correctly understood the claim in the preliminary guidance when  
3 we said it covers, it requires that the counter roller is unheated?

4 MR. JONES: Correct. Patent Owner agrees with the Board's  
5 interpretation.

6 JUDGE ROESEL: So where does that leave us?

7 MR. JONES: Well, it leaves Patent Owner and the Board are in  
8 agreement on the issue of the counter roller not being heated in Claim 24, as  
9 well as one of ordinary skill in the art understanding what was going on.  
10 One other thing I would say to shed light on this is if Patent Owner had been  
11 tasked with proving that the '142 patent somewhere in it discloses that both  
12 rollers are heated, that would be an impossible task.

13 There is not one word about heating the counter roller that -- to an  
14 elevated contact surface temperature. So that would have been -- that claim  
15 doesn't appear in the substitute claims because there is no disclosure to  
16 support that.

17 JUDGE ROESEL: So, just to be clear, it's Patent Owner's position  
18 that the claim does not cover the situation where the thermo-roller is heated  
19 to a temperature of at least 250 Fahrenheit and the counter roller is say  
20 heated to something less than that, say 200 Fahrenheit?

21 MR. JONES: Interesting question. So, there is an implied  
22 proposition in the thermal sciences. We don't heat things down, we only  
23 heat things up. So, in Claim 24, the thermo-roller is heated to the  
24 temperature, the elevated temperature stated.

25 The other roller is not heated to that temperature, i.e., it's not  
26 heated up that much. It is possible, as Mr. Klass has said, that that

1 temperature -- that roller could be cooled. It's also possible that that roller  
2 becomes heated through its surroundings, but not all the way up to the  
3 temperature, that 250-degree temperature of the contact roller.

4 If you were to heat both calenders up, you'd have the Gratton  
5 situation where you're losing bulk on both sides of the paper where bulk is  
6 something you're greedy for. You don't want to give up bulk on both sides  
7 of the paper if you're only printing on one side.

8 So, again, there is nothing in the four corners of the '142 patent that  
9 suggests that counter roller is temperature controlled in any way. So we  
10 wanted to avoid a claim construction for Claim 24 that, for example, claims  
11 that the counter roller has to be held at absolute zero. It's just not heated up  
12 to the same elevated temperature as the counter roller.

13 There's been some discussion about the gloss calender and Patent  
14 Owner wants to support and agree with the arguments provided in the  
15 preliminary guidance about the gloss calender. There's a case -- what's  
16 that -- there's a slide with Novartis, I believe, is the case.

17 There's a case that the Board applied and I believe it's in both the  
18 claim construction and the decision to institute as well as in the preliminary  
19 guidance. The Novartis case talks about the rules for negative limitations  
20 and finding support for them.

21 And I think Petitioner's argument wants to box the Novartis case  
22 into exactly what it says and nothing else. So, for example, the Novartis  
23 case talks about other -- so, the Novartis case gives examples of what could  
24 be support in a specification and it's an open-ended proposition. In other  
25 words, these are examples Novartis is giving you, so substitutions or benefits  
26 and so on.

1           The idea of Novartis is not to say that that's the only way you can  
2 support a negative limitation is a substitution. So we believe Petitioner is  
3 mischaracterizing the Board's position on the gloss calenders.

4           The gloss calenders, the Board does not support putting forward  
5 the gloss calender as a literal substitute for the hot hard nip. The Board is  
6 putting forward the gloss calender as an instance where when the inventors  
7 want you to know that both rollers are heated, they give you the temperature  
8 for both rollers.

9           In contrast, when the inventors only intend for one of the rollers to  
10 be heated to an elevated temperature they only give you the temperature of  
11 the heated roller. The uncontrolled roller doesn't get a temperature  
12 mentioned.

13           So, the Board needs not be pigeonholed into the idea that the gloss  
14 calender is a literal substitute for the hot hard nip. It doesn't appear to ever  
15 have been the Board's intent to make that argument.

16           The last point that I have is that the word about cannot be  
17 expanded. It's an instance of where the word about in Fugitt, about 12  
18 caliper points, that doesn't do any work for the Petitioner. It's literally not  
19 saying what Petitioner would need it to say.

20           It says about and there's not any indication of, you know, how  
21 many percent away from 12.0 does about mean. So, the referencing about  
22 does not actually provide support for a number, or using a different number  
23 like 12.2 or any other specific number like 11.9, which would fall above the  
24 curve.

25           (Pause.)

26           MR. JONES:s Are there any further questions from the Board?

1 JUDGE ROESEL: No, there aren't, so thank you for your  
2 arguments if you're finished.

3 MR. JONES: Okay. Thank you. We'll rest.

4 JUDGE ROESEL: That concludes today's hearing. The case is  
5 submitted, and a final decision will issue in due course.

6 (Whereupon, the above-entitled matter went off the record at 12:04  
7 p.m.)

IPR2023-01206  
Patent 11,293,142 B2

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