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Transcript of Donald Sheldon

Date: November 21, 2025
Case: First Quality Products LLC, et al. -v- Essity Hygiene and Health AB (PTAB)

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FIRST QUALITY v. ESSITY
IPR2024-01487
FIRST QUALITY 1022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

- - - - - - - - - - - - - -x

FIRST QUALITY RETAIL SERVICES, LLC, FIRST QUALITY CONSUMER PRODUCTS, LLC, FIRST QUALITY PRODUCTS, LLC, FIRST QUALITY ENTERPRISE, LLC,	:	Case: IPR2024-01487 U.S. Patent No. 9,308,138
Petitioners,		
v.		
ESSITY HYGIENE AND HEALTH AB,		
Patent Owner.		

Videotaped Deposition of DONALD SHELDON
Friday, November 21, 2025
9:38 a.m.

Job No.: 609426
Pages: 1 - 307
Reported By: Alyssa A. Repsik
Court Reporter

Videotaped Deposition of DONALD SHELDON held at the offices of Dechert LLP, Cira Centre, 2929 Arch Street, Philadelphia, Pennsylvania, pursuant to Notice, before Alyssa A. Repsik, Court Reporter and Notary Public in and for the Commonwealth of Pennsylvania.

A P P E A R A N C E S

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Also Present: Brad Sydorick, Videographer

I N D E X

DONALD SHELDON PAGE

BY ATTORNEY COHEN 6

- - -

E X H I B I T S

NUMBER	DESCRIPTION	MARKED
Exhibit A	Figure 1	148
Exhibit B	Side by Side of Figure 1	154

P R O C E E D I N G S 09:01:33

THE VIDEOGRAPHER: Here begins Media 09:37:52
No. 1 in the videotape deposition of Donald 09:38:13
Sheldon in the matter of First Quality Products, 09:38:15
LLC, et al., v. Essity Hygiene and Health AB 09:38:18
(PTAB), in the United States Patent and Trademark 09:38:27
Office before the Patent Trial and Appeal Board, 09:38:30
Case No. IPR2024-01487. 09:38:34
Today's date is November 21, 2025, and 09:38:40
the time on video monitor is 9:38 a.m. Eastern 09:38:44
Standard Time. 09:38:50
The remote videographer -- or the 09:38:50
videographer today is Brad Sydorick, representing 09:38:52
Planet Depos, and this video deposition is taking 09:38:54
place at 2929 Arch Street in Philadelphia, 09:38:57
Pennsylvania 19104. 09:39:01
Will counsel please voice-identify 09:39:06
themselves and state whom they represent. 09:39:08
ATTORNEY COHEN: Alexis Cohen joined by 09:39:10
my colleague Cole Uzat from WilmerHale, and we 09:39:13
represent the Petitioners First Quality. 09:39:18
ATTORNEY FLANNERY: Kevin Flannery of 09:39:19

Dechert for Mr. Sheldon and the patent owner, and my colleague Dan Roberts will be joining soon, also from Dechert, same representation. 09:39:21 09:39:24 09:39:28

THE VIDEOGRAPHER: The court reporter today is Alyssa Repsik representing Planet Depos, and the witness will now be sworn. 09:39:31 09:39:32 09:39:36

DONALD SHELDON, a witness herein, having been first duly sworn, was examined and testified as follows: 09:39:46

EXAMINATION 09:39:46

BY ATTORNEY COHEN: 09:39:46

Q. All right. Good morning, Mr. Sheldon. 09:39:48

A. Good morning. 09:39:49

Q. Could you please state your full name for the record? 09:39:50 09:39:53

A. Donald Albert Sheldon. 09:39:53

Q. And, Mr. Sheldon, where do you live? 09:39:56

A. I live in Beaufort, North Carolina. 09:39:59

Q. You understand the oath you just took is the same oath that you would be required to take if you were testifying in the United States Court? 09:40:04 09:40:06 09:40:09

A. I do. 09:40:11

Q. Is there any reason you cannot provide complete and accurate testimony today? 09:40:11 09:40:14

A. None that I can think of. 09:40:16

Q. I'm going to go through a few basic ground rules before we get started. 09:40:19 09:40:21

First, please give audible answers, not head nods or shakes, so the court reporter can record your answers. 09:40:23 09:40:28 09:40:30

Please let me finish my questions before you answer so we get a clear transcript. 09:40:31 09:40:35

If you need a break, please let me know, and I will try to take one as soon as possible. We cannot take a break when a question is pending, though. 09:40:38 09:40:42 09:40:44 09:40:47

After we take breaks, I may ask you if you've had a conversation with your counsel about the substance of your testimony. 09:40:47 09:40:52 09:40:53

Does that all make sense? 09:40:56

A. Yes, it does. 09:40:57

Q. Have you ever been deposed before? 09:40:58

A. Yes, I have. 09:41:02

Q. How many times? 09:41:02

A. I -- I don't recall exactly the number. 09:41:03
Maybe seven to nine times. 09:41:09
Q. What did you do to prepare for today's 09:41:12
deposition? 09:41:14
A. To prepare for today's deposition, I 09:41:15
reviewed the patents in question. I reviewed my 09:41:20
declaration and my supplemental declaration. 09:41:26
Q. Did you have any meetings with counsel? 09:41:29
A. Yes. We had some conversations. 09:41:31
Q. How many times did you meet with 09:41:36
counsel? 09:41:38
A. This week, a couple times. 09:41:39
Q. And for about how long did you meet with 09:41:44
counsel? 09:41:47
A. Half a day, maybe two-thirds of the day. 09:41:48
Q. For each of those meetings, you met with 09:41:53
counsel for about half a day? 09:41:57
A. During that time we had breaks, we had 09:41:58
lunch, we talked about marathons, we talked about 09:42:01
football. 09:42:04
Q. Okay. I guess my question more is for 09:42:04
each day that you met with counsel this week, did 09:42:07

you meet for about half a day? 09:42:09
A. Approximately. 09:42:11
Q. And do you know how many days you met with counsel this week? 09:42:13
A. Two. 09:42:15
Q. Did you have any conversations with counsel before those meetings to prepare for your deposition? 09:42:17
A. Actually, no. 09:42:23
Q. Apart from speaking with Essity's counsel -- actually, I guess, strike that. 09:42:27
Who from Essity's counsel did you meet with? 09:42:34
A. I met with Kevin and Dan, and Sharon. 09:42:37
Q. Apart from those individuals, did you speak with anyone else to prepare for today's deposition? 09:42:43
A. No. 09:42:46
Q. All right. I'm handing you Exhibit 2002, and there's a copy for your counsel there. 09:42:51
Mr. Sheldon, this is a copy of your CV that you submitted in this proceeding; is that 09:42:53
09:42:53
09:42:54
09:43:11
09:43:18
09:43:23

correct? 09:43:26

A. Yes. At the beginning of this whole 09:43:26

case, yes, I submitted this. 09:43:28

Q. Okay. Are there any changes to your CV 09:43:29

since you submitted it? 09:43:32

A. I don't think there are any substantial 09:43:34

changes that I can recall. 09:43:36

Q. Now, I want to turn to your employment 09:43:37

at Covidien Tyco Healthcare Kendall Retail Group 09:43:50

that you list on the first page. 09:43:56

Do you see that? 09:43:57

A. Yes. 09:43:58

Q. So you were employed there for about ten 09:43:58

years from 1998 to 2008; is that correct? 09:44:00

A. Yes, but before that it was part of the 09:44:04

Confab group, so that was 1995. And it -- I 09:44:09

continued in the same office the same role, 09:44:15

responsibilities, same staff. 09:44:18

Just the company changed names. 09:44:20

Q. Okay. So Confab, which you listed on 09:44:21

page -- at the top of Page 2 of your CV? 09:44:24

A. It's a separate entity purchased by Tyco 09:44:27

Healthcare, or originally Kendall Confab Retail Group and then Tyco Healthcare, and then they changed the name to Covidien. 09:44:30 09:44:33 09:44:36

Q. Okay. Was there an acquisition between Covidien and Tyco to change that name? Do you know? 09:44:38 09:44:44 09:44:48

A. There was an acquisition called Paragon Trade Brands, which was a baby diaper company, that was purchased around that time or before that time. 09:44:48 09:44:56 09:44:59 09:45:01

I don't recall exact dates. 09:45:03

Q. And you were not employed at Paragon Trade Brands? That was a separate company? 09:45:05 09:45:09

A. Yes. 09:45:11

Q. And in 2008, what would you have called the company that you were working for? Tyco or Covidien? 09:45:12 09:45:26 09:45:28

A. It was Covidien. 09:45:29

Q. Okay. So in 2008, First Quality acquired that part of Covidien; is that correct? 09:45:30 09:45:39

A. They purchased the division, yes. 09:45:40

Q. And it was the division that you were 09:45:42

employed in? 09:45:44

A. Yes. 09:45:44

Q. What was the name of the division? 09:45:44

A. I would call it Covidien. 09:45:47

Q. Oh. I meant more like did it have a 09:45:51

sort of -- I don't know, like absorbent hygiene 09:45:54

products name or something? 09:45:58

A. I don't think so. I think it was -- 09:45:59

Covidien was a conglomerate and it had different 09:46:01

divisions. 09:46:06

Q. Okay. So it was just a division of 09:46:06

Covidien? 09:46:08

A. Yes. 09:46:08

Q. And were you invited by First Quality to 09:46:09

continue your work after the acquisition? 09:46:19

A. No. 09:46:21

Q. Were you terminated by First Quality 09:46:21

after the acquisition? 09:46:26

A. I don't know that I would call it 09:46:27

termination. I was paid for nine months after the 09:46:29

acquisition by Covidien, First Quality in the 09:46:34

agreement, and they had me stay home and not do 09:46:40

anything for them. 09:46:43

So I -- I don't know whether I was 09:46:45

employed for nine months or not employed, but I 09:46:47

was paid for nine months. 09:46:51

Q. So I -- let's -- I have a few questions 09:46:52

about that timeline. 09:46:57

A. Mm-hmm. 09:46:58

Q. So First Quality announces the 09:46:59

acquisition. How long between their announcement 09:47:04

and the acquisition actually being completed? 09:47:08

Do you recall that time period? 09:47:12

A. I think it was a few months. I recall 09:47:16

that they had asked us to reengineer the whole 09:47:17

feminine hygiene product line, so I worked with 09:47:20

the director or the vice president of marketing 09:47:23

and I engineered the whole setup and recommended 09:47:25

equipment and we created a better feminine hygiene 09:47:29

company for them than they had. 09:47:34

Q. And when you said you worked with the 09:47:37

vice president of marketing, was that someone at 09:47:38

Covidien or someone at First Quality? 09:47:41

A. At Covidien. 09:47:43

Q. And who was that individual? 09:47:44
A. That was Joseph Howard. 09:47:45
Q. And you say "they had asked us to 09:47:49
reengineer the whole feminine hygiene product 09:47:52
line." 09:47:54
Was that "they" First Quality? 09:47:54
A. First Quality is run by three brothers, 09:47:58
and they meet -- you meet in a conference room 09:48:01
like this and they would be saying they want this 09:48:06
or that, and it was pretty obvious to all of us 09:48:08
that all the senior executives in First Quality 09:48:10
are family members or relatives. 09:48:14
Q. Okay. And so, sorry. Is it the -- the 09:48:17
family members of First Quality that had asked you 09:48:20
to reengineer the feminine hygiene product line? 09:48:23
A. It was the three partner owners of First 09:48:26
Quality that asked us to reengineer their line. 09:48:29
Q. Okay. And that was prior to the 09:48:32
acquisition? 09:48:34
A. That was prior to the completion, but 09:48:34
during that transition period we were told to work 09:48:37
with them. 09:48:40

Q. Okay. And you said you were told to work with them. Who told you to work with them? 09:48:40 09:48:46

A. Covidien. 09:48:48

Q. Okay. Who at Covidien? 09:48:49

A. Well, I worked for Douglas Strohmeier, the president of our group. Douglas worked for the this CEO of Covidien. 09:48:55 09:48:59 09:49:03

So in the negotiation process, I'm sure the CEO told the president to tell us to do this. 09:49:09 09:49:13

Q. Okay. The CEO of Covidien -- 09:49:15

A. Yes. 09:49:22

Q. -- told the president Douglas Strohmeier to -- 09:49:22 09:49:25

A. Of our division. 09:49:26

Q. -- tell your group -- 09:49:27

A. Yes. 09:49:28

Q. -- to work with First Quality? 09:49:28

A. He was the president of a billion-dollar division. 09:49:31 09:49:32

Q. Okay. 09:49:32

A. Covidien was about 10, 11 billion dollars at that time. 09:49:33 09:49:35

Q. Okay. So I guess just let me finish the question -- 09:49:36 09:49:38

A. Mm-hmm. 09:49:38

Q. -- before you answer. So the CEO of Covidien told the president of your group Douglas Strohmeier to tell you to work with First Quality on their requests during the transition? 09:49:39 09:49:40 09:49:45 09:49:47

A. That's partially correct. They told everyone to work with First Quality, and I was part of the everyone. 09:49:50 09:49:56 09:49:57

Q. Okay. So that transition happened over the period of a few months; is that correct? 09:49:58 09:50:02

A. I -- I believe so, but that's over -- what's it? 20 years ago? Almost 20 years ago? 23 years ago? 09:50:03 09:50:08 09:50:14

Q. No. Sorry. It's almost 20 years ago but not quite. I think 17. 09:50:15 09:50:24

A. Mm-hmm. 09:50:25

Q. Sorry. I'm like, I graduated from college in 2009. I'm not quite ready for that -- 09:50:25 09:50:27

A. Okay. 09:50:30

Q. -- to be 20 years ago. 09:50:31

A. Okay. It's around the corner. 09:50:32
Q. It's coming up but not quite there yet. 09:50:34
Okay. So you work on that during -- 09:50:37
while the acquisition is being completed? 09:50:40
A. Mm-hmm. 09:50:41
Q. Then the acquisition goes through? 09:50:43
A. Mm-hmm. 09:50:45
Q. Do you continue doing any work for 09:50:46
Covidien or First Quality after the acquisition is 09:50:48
completed? 09:50:51
A. They -- if I recall, the acquisition 09:50:52
paperwork was completed on a Friday. Our -- the 09:50:57
president of our division, Douglas Strohmeier, was 09:51:02
asked to leave. 09:51:06
And then Monday, the director of HR came 09:51:07
down and fired everybody in the front office and 09:51:11
then he had to fire himself. 09:51:15
Q. And so how many people were fired at 09:51:18
that point? 09:51:20
A. Pretty much the entire senior staff. 09:51:20
Probably, I would say, close to ten senior 09:51:30
executives and pretty much most of the financial 09:51:33

department because First Quality is an LLC, not a publicly -- company so they didn't need all of those people. 09:51:37 09:51:41 09:51:44

Q. And were you part of the group that was fired on that Monday? 09:51:45 09:51:49

A. Yes. 09:51:50

Q. And so -- 09:51:50

A. Or terminated. 09:51:53

Q. -- the -- the head of HR terminated you on that Monday -- 09:51:53 09:51:57

A. Mm-hmm. 09:51:58

Q. -- following the acquisition? 09:51:58

A. Yes. 09:51:59

Q. And you said you were given nine months severance -- 09:51:59 09:52:04

A. Severance, yes. 09:52:04

Q. -- at that point? 09:52:05

A. Yeah. I had -- I had a one-year retention bonus to stay until the very end, and so if I didn't stay until the very end, I would miss a year's worth of income. And then I had a nine-month severance plus vacation time that was 09:52:05 09:52:08 09:52:12 09:52:15 09:52:17

accumulated, so I did okay. 09:52:20

Q. Sorry. Where was the one-year -- when 09:52:23

did the one-year retention bonus come up? 09:52:34

A. That was provided by Covidien to stay 09:52:36

until the tran -- the sale was completed. 09:52:41

Q. Okay. Okay. So Covidien had provided 09:52:46

you with a bonus to stay on until the sale was 09:52:50

completed? 09:52:53

A. Yes. 09:52:54

Q. The sale is then completed, and you were 09:52:54

terminated with a nine-month severance? 09:52:56

A. Yes. 09:52:57

Q. Okay. Did you have any feelings at the 09:52:57

time about your termination? 09:53:04

A. I don't understand the question. 09:53:07

Q. Were you upset? 09:53:08

A. I don't recall being upset at all. 09:53:10

Q. Now, on your CV, you then have Summalux 09:53:12

listed starting in 2008? 09:53:33

A. Yes. 09:53:34

Q. What was Summalux? 09:53:34

A. Summalux was a company that was created 09:53:36

at Drexel, the university. The team that was working there was -- was trying to provide sunlight on cloudy days in solar tubes. You know, solar tube goes to the ceiling. So they wanted to provide sunlight when it's cloudy like today. 09:53:39 09:53:44 09:53:48 09:53:53 09:53:56

And so that was the patent that they filed at Drexel. They asked me to join the team because of my experience in commercialization. I take ideas and make them real. 09:54:00 09:54:04 09:54:08 09:54:12

So they asked me to help them out, and what we chose to do is to take a slightly different direction, a little bit different than Drexel. We chose to take LED lights internal and provide the full spectrum of the sun. 09:54:14 09:54:17 09:54:20 09:54:22 09:54:27

As you know, LED lights have diodes in it, most all of them are just plain white, and they're controlled by a computer to dissipate the heat and control of dimming and everything else. 09:54:30 09:54:34 09:54:37 09:54:41

So pretty easy to hack into the computer to add in colored lights, blue, green, red, the whole bit besides white, so it would mimic the sunlight. So it's a potential to bring sunlight 09:54:44 09:54:47 09:54:50 09:54:53

indoors.

In addition, because we've got a computer running the system, you can actually follow the circadian rhythm of the sun, or if you had an evening shift that you wanted to have working for you, you could give them daytime sunlight.

So that was the -- encompassed the patents that we accumulated over time.

Q. Was the Summalux product launched commercially?

A. No.

Q. How come?

A. The market, if you recall back in 2008 with the current president at the time, they were very, very focused on energy reduction, building less power plants. It just went against the market trend at the time to have something more expensive.

So the analogy I'll give you is if the country is looking for Ford Model As and you're making classy Mercedes-Benz, the market is not

09:54:59
09:55:00
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09:55:56
09:55:57
09:56:01

ready for your Mercedes-Benz. They're ready for a less expensive Model A Ford. 09:56:06 09:56:09

So what we ran into is we couldn't find traction to go with a full-spectrum light, creates health, creates everything else, we couldn't get traction. 09:56:11 09:56:17 09:56:20 09:56:24

In terms of grants, we did apply for a million-dollar grant to bring us up to speed because we met all the requirements for the Martian plan for 25-hour sunlight so we could do that with our system, but that was awarded to a large company because they had current staff and we were a startup and we had no staff. We were -- we didn't pay ourselves. We had no money. 09:56:24 09:56:28 09:56:32 09:56:38 09:56:44 09:56:48 09:56:51 09:56:53

Q. And the -- 09:56:56

A. So that was interesting, very interesting approach to how to improve the health of people. 09:56:57 09:56:58 09:57:00

Q. And you -- Summalux existed from 2008 to 2024? 09:57:03 09:57:08

A. Yeah. In 2024 the royalties ran out. We were getting royalties from a company to 09:57:08 09:57:12

continue, and the royalties ran out. 09:57:15

So we decided it was time to end. 09:57:17

Q. And what company was paying you royalties? 09:57:20 09:57:22

A. I think it was Delos, LLC, out of New York City. 09:57:23 09:57:30

Q. And the LED lights, as far as I understand, are more energy efficient than like traditional fluorescent bulbs; is that correct? 09:57:36 09:57:38 09:57:41

A. They're -- they're more energy efficient than an incandescent bulb, the old, hot ones. The LEDs can be more efficient than a fluorescent. 09:57:44 09:57:45 09:57:52

The problem with the florescent bulbs is you have a mercury coating inside so the EPA bans you from using them outdoors because of the concern with mercury. 09:57:55 09:57:58 09:58:05 09:58:07

They're still allowed to be used indoors, but you can't dispose of them. 09:58:08 09:58:09

Q. So the LED light that you had worked on was more energy efficient than traditional incandescent and safer for the environment than fluorescent lights? 09:58:12 09:58:18 09:58:21 09:58:24

A. Yes. 09:58:25

Q. When in the timeline of 2008 to 2024 did you stop trying to commercialize this bulb? 09:58:26 09:58:32

A. We were -- we were looking for money. We were looking for funders. So I would say we probably stopped trying to find funders somewhere around, oh, 2015, '16 maybe. 09:58:34 09:58:40 09:58:44 09:58:47

Q. And so then from 2016 to about 2024, Summalux was just kind of a holding company? 09:58:53 09:58:58

A. It was a holding company for the intellectual property that we had that we were collecting some royalties on and we were assisting on international filings. 09:59:03 09:59:05 09:59:08 09:59:11

Q. So -- okay. So for about eight years you were focused just on kind of patent procurement and royalty collection; is that correct? 09:59:18 09:59:20 09:59:23 09:59:26

A. Yeah. It's -- it's a small thing, but, yeah, part-time, you focus on that. 09:59:26 09:59:30

Q. For the entirety that Summalux existed from 2008 to 2024, it was -- was it a part-time endeavor for you? 09:59:32 09:59:37 09:59:43

A. Mostly for us and my partners, yes. 09:59:43
Q. And who were your partners in that? 09:59:45
A. Dr. Fontecchio. I'd have to look it up. 09:59:50
He was one of the deans of one of the departments 09:59:57
at Drexel, and Eric Eisele was a graduate student 10:00:00
from Drexel with an electrical engineering 10:00:07
background. 10:00:09
Q. At the same time in 2008, you founded 10:00:14
your own consultant shop; is that correct? 10:00:19
A. I needed something to do, so I said, 10:00:23
yes, I'm available to help companies however they 10:00:26
need. 10:00:30
Q. Did you look for employment at another 10:00:31
company? 10:00:40
A. I had a very nice house on the lake in 10:00:40
Downingtown. My wife had her own business. 10:00:49
Financially we did not need for me to be employed, 10:00:52
and I certainly didn't want to move all over the 10:00:56
country to take another position. 10:00:58
At the time I worked at Covidien, at 10:01:01
that time, we were about the third largest 10:01:03
absorbent hygienic product company in the world 10:01:07

and I had divisions in Europe. We had plants all over the country. 10:01:11 10:01:14

And if you recall with the economy falling, it was about 2009 in March, the economy collapsed. It was terrible. The new rules for the government put in place were -- most all the companies were focused on how to reduce cost, not improve products or how to create new products. They were all trying to survive. And I chose to not participate in that. 10:01:16 10:01:18 10:01:22 10:01:25 10:01:28 10:01:32 10:01:35 10:01:38

Q. Okay. So as of 2008 -- 10:01:41

A. Yeah. 10:01:45

Q. -- you did not look for employment at another -- hygienics company? 10:01:45 10:01:47

A. I might have had a couple meetings with presidents and CEOs of the companies, but not in the traditional look-in-the-newspaper kind of stuff, no. 10:01:51 10:01:54 10:02:01 10:02:02

Q. Has your consultant shop, the DAS Consultants, since 2008, been a full-time endeavor? 10:02:03 10:02:19 10:02:23

A. No. 10:02:24

Q. What percentage of your work, as part of this consultancy, is expert witness work compared to product development work? 10:02:24 10:02:31 10:02:38

A. The expert witness work is up and down. It can be engaged for a number of months, and then for a number of months nothing happens, so it's a very up-and-down kind of thing. 10:02:40 10:02:44 10:02:47 10:02:51

My other consulting work probably is the same or smaller than the expert witness work. 10:02:56 10:03:01

Q. So from your consultant shop, at least half of the income you've generated has been from being an expert witness? 10:03:03 10:03:14 10:03:17

A. We generated enough income from my wife's business through my investments. I -- I don't know that I can say half my income comes from just -- at all. I can't say that. 10:03:20 10:03:24 10:03:28 10:03:30

Q. It's more -- 10:03:33

A. I've got other income streams. 10:03:34

Q. I -- my question isn't quite about your income in total. My question is the income that you receive from DAS Consultants -- 10:03:35 10:03:39 10:03:42

A. Mm-hmm. 10:03:46

Q. -- at least half or more of that specific income stream is due to your work as being an expert witness? 10:03:46 10:03:49 10:03:52

A. Depends upon the year. 10:03:54

Q. Some years it has been more than half? 10:03:56

A. Some years, yes. 10:04:01

Q. And the -- I think what you said before for the total income stream coming from this DAS Consultant, the majority has come from being an expert witness, and the work you've done for product development has been less; is that correct? 10:04:04 10:04:10 10:04:14 10:04:18 10:04:22 10:04:25

A. I would say it's about correct. 10:04:25

Q. Okay. Now, and in this case, you are serving as an expert witness on behalf of Essity; correct? 10:04:29 10:04:36 10:04:41

A. Yes. 10:04:41

Q. And you are offering opinions adverse to First Quality's position in this case; is that correct? 10:04:42 10:04:50 10:04:52

A. No. 10:04:52

Q. Well, you are taking positions that are 10:04:52

counter to positions that First Quality is taking in its filings; is that correct? 10:04:57 10:04:59

A. I am -- I am providing my opinion of what Dechert is asking me to provide on. 10:05:00 10:05:06

Q. And Dechert is representing Essity in this lit -- this litigation against First Quality; is that correct? 10:05:12 10:05:16 10:05:19

A. That's correct. 10:05:19

Q. How many other times have you been retained by parties who are adverse to First Quality? 10:05:19 10:05:22 10:05:26

A. At least once. 10:05:26

Q. Is it possibly more than once? 10:05:31

A. I don't recall without going through all the -- I don't recall. I'd have to go back and look at my calendar. 10:05:34 10:05:37 10:05:40

Q. Since being terminated by First Quality, have you been retained by First Quality to serve as an expert witness? 10:05:42 10:05:47 10:05:49

A. No. 10:05:50

Q. You served as an expert witness on behalf of Kimberly-Clark against First Quality; 10:05:51 10:05:57

correct? 10:06:00

A. I was a known to Kimberly-Clark and they 10:06:00

asked me for some advice and started off as a 10:06:06

technical advice and turned into a litigation. 10:06:08

Q. And did you offer expert reports in that 10:06:11

litigation? 10:06:15

A. Yes. 10:06:15

Q. And were you deposed in that litigation? 10:06:16

A. Yes. 10:06:18

Q. And did you testify at a hearing in that 10:06:19

litigation? 10:06:23

A. Yes. 10:06:24

Q. Did you testify at trial in that 10:06:26

litigation? 10:06:29

A. Yes. 10:06:29

Q. And how long did that litigation go on 10:06:29

for? 10:06:33

A. I don't recall exactly. Maybe a couple 10:06:33

years. 10:06:37

Q. Do you recall how many hours you spent 10:06:37

on that litigation? 10:06:52

A. I do not. 10:06:54

Q. Would it be over a hundred? 10:06:54

A. Most likely over a hundred. 10:06:56

Q. Do you think it would be over 200? 10:07:00

A. I don't recall the exact numbers. I don't even recall if I have the calendar back that far to tell me what those numbers are. 10:07:03 10:07:06 10:07:09

Q. When did you move from Downingtown, PA to North Carolina? 10:07:13 10:07:15

A. I moved in 2017. I had been traveling to Beaufort area because my father and mother lived down there, my brother and sister live down there, my cousins live down there, and I've been traveling to that area for 30 years. So we were down there for most every holiday, during the summer, so very familiar with the area. 10:07:16 10:07:23 10:07:29 10:07:32 10:07:35 10:07:37 10:07:41

My brother and sister asked me if I could help them with my mother. My mother is in her 90s and she needs help but she wants to be independent. She's extremely astute intellectually, mentally is all there. She just has a physical weak 96-year-old body. So we chose to move. 10:07:45 10:07:47 10:07:52 10:07:55 10:07:59 10:08:02 10:08:08

My wife sold her business, and my consulting work could continue anywhere. 10:08:10 10:08:13

Q. On your CV you say "expert witness in litigation experience, 12." 10:08:15 10:08:28

A. Okay. 10:08:30

Q. Do you see that? 10:08:30

A. Yes. 10:08:34

Q. Is that a correct number? 10:08:34

A. It probably is. 10:08:35

Q. And for the matters that are against First Quality, how many of those account for the 12? 10:08:36 10:08:42 10:08:47

A. I think two, but I don't recall all 12. I would have to look back and see what all 12 were. 10:08:48 10:08:52 10:08:55

Q. Before this matter, had you been retained by Essity previously? 10:08:55 10:08:59

A. I don't think so. 10:09:02

Q. Were you ever retained by its predecessor, SCA Hygiene? 10:09:03 10:09:06

A. No. I don't think so. 10:09:09

Q. And what's your consulting rate? 10:09:12

A. Currently, I charge 400 an hour. 10:09:28

Q. And how has that -- do you recall what the rate was that you charged at the beginning of DAS Consultants? 10:09:31 10:09:37 10:09:39

A. $200 an hour. 10:09:40

Q. When did you increase your rate? 10:09:41

A. Over time. 10:09:44

Q. Do you know any specifics about that? 10:09:47

A. Over time. I've been charging 400 for at least the last one before this one, maybe two before this one. I don't recall. 10:09:50 10:09:56 10:10:00

Q. So would that be for the last, like, ten years you've been charging 400 an hour? 10:10:01 10:10:04

A. Probably the last two or three years. 10:10:06

Q. And before that, did you charge 300 an hour? 10:10:08 10:10:12

A. Probably 350, and before that, 300. 10:10:12

Q. Okay. Do you recall how much you were charging when you were retained by Kimberly-Clark to offer opinions in the litigation against First Quality? 10:10:20 10:10:21 10:10:25 10:10:27

A. That was being paid at $200 an hour. 10:10:27

Q. And what were you asked to opine on in that case? 10:10:29 10:10:37

A. They asked me to opine on, I think it was a training pant, baby -- infant training pant processes. I think so. And they also asked me to do something on baby diapers but nothing ever came to fruition, so I never worked on that. 10:10:37 10:10:48 10:10:52 10:10:59 10:11:02

Q. And were you offering opinions on infringement or invalidity or both? 10:11:05 10:11:11

A. I believe it was both. 10:11:15

Q. And so were you offering opinions there about a patent being valid? 10:11:17 10:11:20

A. I believe I did. 10:11:23

Q. And Kimberly-Clark was the plaintiff in that litigation? They were asserting patents? 10:11:25 10:11:30

A. Yes. 10:11:33

Q. And did you consult on figuring out which patents to assert in that case? 10:11:34 10:11:44

A. Yes. I recall that there was at least one patent I -- I suggested they -- they not assert. 10:11:48 10:11:55 10:11:58

Q. And why was that? 10:11:59

A. Because I -- I -- because of my technical opinion at that time. 10:12:02 10:12:07

Q. Did you not think First Quality infringed that patent? 10:12:08 10:12:11

A. I think there were six or eight patents in question and this was one that I wasn't sure that they infringed. 10:12:12 10:12:18 10:12:19

But, you know, when you do your research, you review the patents, you put together your information. 10:12:21 10:12:24 10:12:26

At the end of the day, you come back and you provide an opinion. I provided an opinion on those patents. 10:12:26 10:12:28 10:12:31

Q. And so you helped First Quality -- or, sorry -- you helped Kimberly-Clark select which patents to assert in the litigation? 10:12:31 10:12:46 10:12:49

A. No. They decide which patents they litigate. I don't. I'm just an expert providing advice and consultation and opinions. 10:12:51 10:12:56 10:12:59

Q. And you provided opinions as to which patents would be best to assert in the litigation? 10:13:02 10:13:04

A. No. I provided an opinion of which 10:13:06

patents, based upon my understanding, were infringed by the First Quality product. 10:13:11 10:13:17

Q. And you think you looked at about six or eight patents? 10:13:19 10:13:22

A. Something. I don't recall. 10:13:22

Q. Do you recall how many patents were asserted in the litigation? 10:13:23 10:13:28

A. I don't recall. 10:13:29

Q. Do you recall what the ultimate outcome was of the litigation? 10:13:31 10:13:35

A. No, I do not. I'm usually not provided any information with how it settles out of court or what happens. 10:13:35 10:13:39 10:13:43

Q. Well, do you recall if there was a jury trial? 10:13:44 10:13:46

A. Yes. 10:13:46

Q. And do you recall what the verdict was? 10:13:48

A. No. I was not part of -- of getting any information about the verdict. 10:13:50 10:13:53

Q. Okay. And the team didn't update you on what the verdict was? 10:13:54 10:13:56

A. No. Why should they? 10:13:57

Q. Now, the litigation against First Quality, was it around the 2010 time frame? 10:13:59 10:14:07

A. I don't recollect the exact date, but it could be around that time frame. 10:14:14 10:14:19

Q. And that was about two years after you had been terminated at the acquisition in 2008; is that correct? 10:14:21 10:14:26 10:14:32

A. About, yeah. About two years. That was probably the best thing that happened for us. 10:14:32 10:14:38

Q. The -- sorry. When you say "the best thing that happened for us," what are you referring to? 10:14:39 10:14:44 10:14:46

A. Being free of First Quality, being free of working full-time for the absorbent product industry. 10:14:46 10:14:50 10:14:54

Q. And why was it good for you to be free of First Quality? 10:14:54 10:14:57

A. I didn't have a 7:00 a.m. to 7:00 p.m. job six days a week anymore, and I didn't have to do the traffic on the Schuylkill Expressway. And my wife and I were financially in a position where we didn't have to work. 10:14:57 10:15:03 10:15:06 10:15:11 10:15:13

Q. Did you, at the time in 2010 when you were working on the Kimberly-Clark litigation, have any personal knowledge of First Quality's process from your previous employment? 10:15:15 10:15:18 10:15:20 10:15:23

A. I would say that I had no detailed knowledge of First Quality's processes relating to training pants. I think we toured their plant once, but walking through a production plant and seeing machines running over there is -- is -- is just a -- a tour. It really isn't anything that I recall. 10:15:26 10:15:36 10:15:39 10:15:45 10:15:48 10:15:53 10:15:58

Q. And had you worked on their training pants prior to your termination? 10:15:59 10:16:03

A. No. Covidien had its own training pants and own training pant design. 10:16:07 10:16:13

Q. And that training pant design was not part of what First Quality ultimately started selling or -- sorry. Strike that. 10:16:14 10:16:17 10:16:19

The training pants that had been designed and sold by Covidien were not sold by First Quality after the acquisition? 10:16:21 10:16:26 10:16:29

A. I don't know that. 10:16:30

Q. But those weren't the training pants that you were evaluating as part of the Kimberly-Clark litigation? 10:16:32 10:16:33 10:16:35

A. The training pants that we produced at Covidien did not have any refastenable features, and this litigation, I recall, was about refastenability of training pants. 10:16:36 10:16:40 10:16:46 10:16:50

Q. Over the course of your expert witness work, how many times have you been retained by the patent holder in a litigation? 10:16:52 10:17:00 10:17:05

A. I -- I never measure that. I don't know. 10:17:08 10:17:10

Q. How many times have you offered opinions of patent validity like that a patent is valid over the course of your work? 10:17:11 10:17:15 10:17:19

A. Some of the times. I don't recall the numbers. 10:17:21 10:17:27

Q. Have you ever offered an opinion that a patent is invalid? 10:17:29 10:17:32

A. I may have. 10:17:33

Q. Do you have any specific recollection here today? 10:17:36 10:17:37

A. I don't recall. 10:17:38

Q. Now, in this matter between Essity and First Quality, you also previously offered opinions on claim construction; is that correct? 10:17:46 10:17:52 10:17:54

A. I -- I don't understand the question. 10:17:59

Q. Do you understand there's a parallel district court litigation between Essity and First Quality? 10:18:00 10:18:04 10:18:08

A. I've heard that there's something going on. 10:18:08 10:18:12

Q. And in that, you were deposed and offered a declaration for opinions on how certain terms in the asserted patent should be construed; correct? 10:18:13 10:18:17 10:18:21 10:18:24

A. So this was related to the patent in question? 10:18:27 10:18:32

Q. Correct. 10:18:33

A. And the terms in the patent in question? 10:18:34

Q. Correct? 10:18:37

A. I might have done that, yes. 10:18:38

Q. Do you have recollection of that? I can represent it was earlier this year. 10:18:40 10:18:45

A. I -- I probably did it earlier this year. I didn't review that to prepare for this. 10:18:47 10:18:50

Q. Okay. On the back of your CV, you have a number of patents. And I think this is related to the work that you did at Summalux, a number of patents that are titled "LED lighting system." 10:18:52 10:19:04 10:19:10 10:19:15

Do you see that? 10:19:17

A. Yes. 10:19:18

Q. Are those the Summalux -- 10:19:19

A. Yes. 10:19:20

Q. -- related patents? 10:19:21

And you filed the patents and got patents even though you did not have a commercialized product? 10:19:22 10:19:25 10:19:27

A. Correct. We had a -- a large-box prototype to show how it worked and we were trying to get funding. We got enough funding to file patents, but not enough funding to commercialize it. 10:19:28 10:19:37 10:19:39 10:19:44 10:19:48

Q. What would you have had to figure out in order to commercialize the product? 10:19:48 10:19:51

A. We needed at least a million dollars. 10:19:52

Q. And what would you have used that million dollars for? 10:19:57 10:20:00

A. We would have used that million dollars to create the circuit chips, the shielding, the -- we're looking at down -- down lights, little round ones there. 10:20:01 10:20:05 10:20:11 10:20:15

We would have to -- to put all those elements together and it would have to be assembled somewhere. 10:20:17 10:20:19 10:20:22

Q. So what had you figured out when you filed the patents for Summalux? 10:20:23 10:20:27

A. What do you mean what did we figure out? I don't understand the question. 10:20:31 10:20:34

Q. Well, you said you had a prototype to show how your design worked. I guess what was included in the prototype? 10:20:34 10:20:36 10:20:39

A. The prototype contained multicolor LED lights. They were run off of a computer like yours. And we had wires running to the lights and circuits and everything. 10:20:40 10:20:46 10:20:48 10:20:57

Q. But that wasn't a product that could have been manufactured for commercialization; is 10:20:59 10:21:03

that correct? 10:21:07

A. The elements of having pieces and parts 10:21:07

are not microchip out. To make a chip to run that 10:21:13

is pretty expensive. 10:21:19

Q. But you were still able to figure out 10:21:22

that the light would work from a prototype without 10:21:26

figuring out how to manufacture it; is that 10:21:31

correct? 10:21:37

A. We would -- I would say that we could 10:21:37

demonstrate how the technology would work. We had 10:21:44

to miniaturize it to finalize it. 10:21:48

Q. And you filed a patent on a device that 10:21:53

you had not yet finalized; is that correct? 10:22:00

A. As I said, we had a working prototype to 10:22:04

demonstrate to ourselves and to anyone who was 10:22:09

willing to listen how the technology would work. 10:22:12

Q. And you were able to file a patent on 10:22:21

that working prototype? 10:22:23

A. Yes, we did. 10:22:24

Q. What -- Mr. Sheldon, you have, in 10:22:27

addition to the CV that I've passed to you, there 10:22:34

are two documents in front of you. 10:22:36

Can you tell me what those are? 10:22:38

A. Those are my expert declaration and my 10:22:39

supplemental expert declaration. 10:22:46

Q. So the -- the first expert declaration, 10:22:48

that's Exhibit 2001; is that correct? 10:22:52

A. Yes, it's 2001. 10:22:56

Q. And then the other declaration is 10:22:59

Exhibit 2004? 10:23:02

A. 2004. 10:23:02

Q. Are there any notes or markings on 10:23:03

either of those documents? 10:23:05

A. None. 10:23:06

Q. Do you have any other documents with you 10:23:06

today? 10:23:08

A. No. 10:23:09

ATTORNEY COHEN: Counsel, do you want 10:23:15

copies for yourself? 10:23:16

ATTORNEY FLANNERY: Yes, please. 10:23:17

ATTORNEY COHEN: Hold on. This is 10:23:27

Exhibit 2004. And then this is Exhibit 2001. 10:23:44

ATTORNEY FLANNERY: Thank you, counsel. 10:23:58

BY ATTORNEY COHEN: 10:24:00

Q. Now, Mr. Sheldon, you provided the opinions in Exhibit 2001 before the patent office issued its decision on institution in this proceeding; is that correct? 10:24:00 10:24:03 10:24:09 10:24:11

A. I believe so. 10:24:12

Q. And then after the decision on institution, you provided your supplemental declaration that's Exhibit 2004? 10:24:15 10:24:17 10:24:20

A. Yes. 10:24:21

Q. And Exhibit 2004 incorporates the opinions that you offered in Exhibit 2001; correct? 10:24:22 10:24:26 10:24:29

A. Yes. 10:24:29

Q. And so you're prepared today to testify on the opinions you offered in both Exhibits 2004 and 2001? 10:24:29 10:24:35 10:24:37

A. Yes. 10:24:39

Q. I'm also going to provide you -- hold on. Okay. 10:24:40 10:24:56

So this is First Quality Exhibit 1001 and, Mr. Sheldon, do you recognize this as the '138 patent that is being challenged in this 10:25:16 10:25:26 10:25:29

proceeding? 10:25:33

A. Yes. 10:25:34

Q. Do you know any of the inventors on this patent personally? 10:25:34 10:25:38

A. No, I do not. 10:25:39

Q. Do you know any employees of SCA Hygiene or SEA Hygiene personally? 10:25:41 10:25:49

A. Not anymore. 10:25:52

Q. And did you used to? 10:25:54

A. Yeah. 10:25:55

Q. Who? 10:25:55

A. Prelo Hood (phonetic) was their director of quality and R&D, and he retired. 10:25:56 10:26:02

Q. And when did you know him? 10:26:04

A. I knew him from the time I worked at Confab and Covidien. 10:26:05 10:26:11

Q. And when did he retire? 10:26:15

A. Rumor was maybe a couple years ago. I don't know. I don't stay in touch. 10:26:17 10:26:21

Q. Did you remain in contact with him after you stopped working in the industry in 2008? 10:26:22 10:26:27

A. What do you mean by "remain in contact"? 10:26:32

Q. Well, did you talk to Mr. Hood after 2008? 10:26:37 10:26:41

A. I met him once in a meeting. 10:26:41

Q. After 2008? 10:26:50

A. Yes. 10:26:51

Q. What was that meeting? 10:26:51

A. That was a meeting we were trying to gain traction in our absorbent product, the company called Advanced Absorbent Technologies. 10:26:54 10:27:00 10:27:06

Q. And I guess I had some questions about that. 10:27:10 10:27:14

If you go back to your CV. 10:27:15

A. Okay. 10:27:16

Q. On Page 1, that's the Advanced Absorbent Technologies company that's listed below Summalux? 10:27:17 10:27:21

A. Yes. 10:27:24

Q. And you founded that in 2013? 10:27:24

A. Yes. 10:27:28

Q. And why were you meeting with Mr. Hood about that company? 10:27:28 10:27:35

A. Somewhere between 2013 and 2020, we met with Mr. Hood about our technology. We were 10:27:36 10:27:42

trying to get companies interested in helping us to grow. 10:27:45 10:27:50

Q. Did any companies ultimately invest in Advanced Absorbent Technologies? 10:27:51 10:27:58

A. Members of the Keiretsu Forum out of here in Philadelphia had invested to help us get off the ground. 10:28:02 10:28:11 10:28:14

Q. And what is the Keiretsu Forum? 10:28:15

A. It's a group of investors in the Philadelphia area. 10:28:18 10:28:23

Q. Is it like a venture capital firm? 10:28:23

A. Yes. 10:28:26

Q. Apart from the Keiretsu Forum, did Advanced Absorbent Technologies receive other funding? 10:28:26 10:28:31 10:28:34

A. Yes. 10:28:35

Q. From where? 10:28:36

A. Me, and partners. 10:28:38

Q. Okay. You and your cofounders invested personal capital in Advanced Absorbent Technologies? 10:28:43 10:28:46 10:28:48

A. Yes. 10:28:49

Q. Apart from your personal capital from the -- you and the cofounders and Keiretsu Forum, did Advanced Absorbent Technologies receive other funding or investment? 10:28:49 10:28:51 10:28:56 10:28:59

A. For a short time we probably got some funding out of Chicago. 10:28:59 10:29:06

Q. What in Chicago? 10:29:12

A. A -- a very wealthy venture capitalist. 10:29:13

Q. Okay. Like a private funder -- 10:29:18

A. Private. 10:29:20

Q. -- individual -- 10:29:21

A. Mm-hmm. 10:29:21

Q. -- with money? 10:29:22

Did any companies in the hygienic product space invest in Advanced Absorbent Technologies? 10:29:29 10:29:32 10:29:36

A. Not -- not financially. 10:29:36

Q. How did they invest, if not financially? 10:29:44

A. They provided us some of the -- use of some of their equipment as long as we paid them for their time. 10:29:49 10:29:54 10:29:56

Q. And what companies let you rent their 10:29:56

equipment? 10:30:01

A. That was called LiveDo, which is a subsidy of a Japanese firm, and they're located in Wilson, North Carolina. 10:30:02 10:30:08 10:30:12

Q. Did the products that Advanced Absorbent Technologies was developing ever get commercialized? 10:30:13 10:30:22 10:30:23

A. Yes. 10:30:23

Q. How many did you sell? 10:30:24

A. Million or more. I don't know. 10:30:26

Q. How long were they on the market? 10:30:31

A. They were on the market until I guess it was around 2000 and -- right around then when COVID hit and our governor in North Carolina shut down all manufacturing, especially those that were doing contract manufacturing. We were doing contract manufacturing and that was it. It was -- we lost our production. We lost our customers. 10:30:33 10:30:41 10:30:47 10:30:50 10:30:52 10:30:55 10:30:59

And during that period our competitors in China never stopped manufacturing. In China, it's quite normal to have a manufacturing plant and have the dormitory upstairs. 10:31:05 10:31:09 10:31:12 10:31:15

So in China when they said the company was shut down, that meant that the people who lived in the dormitory upstairs couldn't go home to see their families. They stayed and worked 24/7. And we couldn't compete. 10:31:18 10:31:21 10:31:23 10:31:26 10:31:34

Q. When did the product -- I guess let me strike that. 10:31:37 10:31:42

How many products were commercialized at Advanced Absorbent Technologies? 10:31:42 10:31:45

A. We commercialized adult incontinent protective underwear in different sizes, different pull-ups for male and female. 10:31:49 10:31:54 10:31:58

Q. And that's the ALYNE protective underwear? 10:32:00 10:32:04

A. Yes. 10:32:04

Q. And you only launched the ALYNE protective underwear as a commercial product when at Advanced Absorbent Technologies? 10:32:04 10:32:09 10:32:12

A. Yes. 10:32:15

Q. And when did the ALYNE protective underwear launch as a commercial product? 10:32:16 10:32:19

A. We did it before we became Product of 10:32:21

the Year at INDA, or the hygienics conference. I can't recall what year that was. 10:32:31 10:32:38

Is it not listed in here. 10:32:39

Q. It says 2017 Hygienics Innovation Award winner? 10:32:40 10:32:45

A. Yes. We launched in 2017. We had to commercialize and sell products before we could receive that award. 10:32:46 10:32:50 10:32:51

Q. Okay. So you sold the ALYNE protective underwear from about 2017 to 2020? 10:32:52 10:32:55

A. Yes. 10:32:57

Q. And you said you were a contract manufacturer. What did you mean by that? 10:32:57 10:33:09

A. We contract manufactured at somebody else's production facility. 10:33:12 10:33:14

Q. Okay. Whose production facility did you use? 10:33:16 10:33:21

A. We used a company, as I mentioned, called LiveDo out of Wilson, North Carolina. They're a subsidy of a Japanese company. 10:33:21 10:33:24 10:33:30

Q. Okay. So the company you were talking about before where you paid to use their 10:33:34 10:33:35

equipment -- 10:33:37

A. Mm-hmm. 10:33:38

Q. -- that was LiveDo? 10:33:38

A. Yes. 10:33:40

Q. And you used their equipment for the commercialization and for commercial production of the ALYNE product? 10:33:40

A. Yes. 10:33:47

Q. Okay. We've been going for almost an hour. Do you want to take a quick break? 10:33:47

A. I'm fine. 10:33:55

Q. Okay. All right. I am now handing you Exhibit -- First Quality Exhibit 1006. 10:33:56

And I am also handing you First Quality Exhibit 1008. And for your counsel. 10:34:09

ATTORNEY FLANNERY: Thank you. 10:34:17

BY ATTORNEY COHEN: 10:34:22

Q. Now, Mr. Sheldon, I've handed you First Quality's Exhibit 1006, which is a patent with the number 6455753 that I will refer to as the Glaug reference. 10:34:30

You reviewed this patent in providing 10:34:35

your opinions? 10:34:54

A. Yes. 10:34:55

Q. Did you review this patent to prepare for the deposition today? 10:34:55

A. Yes. 10:34:58

Q. And then the other exhibit I've handed you is First Quality Exhibit 1008, which I refer to as the Nakazawa reference. 10:34:59

Did you review this to prepare for your deposition today? 10:35:02

A. Yes. 10:35:06

Q. And you reviewed this in preparing opinions in your declaration; is that correct? 10:35:11

A. Yes. 10:35:13

Q. Now, you understand that in the proceeding, Petitioner, First Quality, contends that the combination of Nakazawa and Glaug renders the challenged claims invalid for being obvious; correct? 10:35:13

A. I was told that. 10:35:14

Q. And you reviewed Mr. -- or Dr. Pourdeyhimi's declaration; correct? 10:35:20

A. Yes. 10:35:23

Q. Now, you understand that in the proceeding, Petitioner, First Quality, contends that the combination of Nakazawa and Glaug renders the challenged claims invalid for being obvious; correct? 10:35:23

A. I was told that. 10:35:25

Q. And you reviewed Mr. -- or Dr. Pourdeyhimi's declaration; correct? 10:35:29

A. Yes. 10:35:33

Q. And you reviewed this in preparing opinions in your declaration; is that correct? 10:35:37

A. Yes. 10:35:37

Q. Now, you understand that in the proceeding, Petitioner, First Quality, contends that the combination of Nakazawa and Glaug renders the challenged claims invalid for being obvious; correct? 10:35:42

A. I was told that. 10:35:47

Q. And you reviewed Mr. -- or Dr. Pourdeyhimi's declaration; correct? 10:35:47

A. Yes. 10:35:49
Q. And did you review the petition, too? 10:35:49
A. Yes. 10:35:51
Q. What is your understanding of the proposed combination that Petitioners offer in the petition? 10:35:51 10:35:59 10:36:02
A. Could you clarify the question, please? 10:36:03
Q. So you reviewed the petition; correct? 10:36:09
A. Yes. 10:36:13
Q. Where First Quality contends that the combination of Nakazawa and Glaug renders the challenged claims invalid; correct? 10:36:13 10:36:18 10:36:22
A. That's what I recall they said, but I disagree. 10:36:24 10:36:28
Q. I understand you disagree. 10:36:29
A. Mm-hmm. 10:36:31
Q. Do you understand what the proposed combination is that First Quality is making? 10:36:33 10:36:35
ATTORNEY FLANNERY: Object to the form. 10:36:40
THE WITNESS: I think it's referenced in my declaration, reference what Dr. Pomodori [sic] said. 10:36:44 10:36:46 10:36:58

BY ATTORNEY COHEN: 10:36:59

Q. Okay. And you're free to refer to your declaration if you want. 10:36:59 10:37:01

A. Okay. 10:37:02

Q. So my question is what do you understand about the proposed combination of Nakazawa and Glaug? 10:37:02 10:37:04 10:37:07

A. I -- I understand that Dr. Pomodori [sic] is just saying you can throw them together and it'll work fine without any reason or experience or knowledge. 10:37:07 10:37:13 10:37:15 10:37:19

Q. Do you know specifically how he proposes that you combine the two references? 10:37:26 10:37:28

A. Perhaps you can give me what you're saying. I would like a question. 10:37:32 10:37:35

Q. Well, my question was do you understand what the proposed combination is? 10:37:40 10:37:43

And if you want to take a look, this is at Page 55 of your Exhibit 2001 is where you offer opinions responding to this. 10:37:47 10:37:51 10:37:56

A. Yes, I see my response 136 to Dr. Pomodori's arbitrary opinions. 10:38:24 10:38:26

Q. And my question is do you understand what the proposed combination is of Nakazawa and Glaug? 10:38:30 10:38:32 10:38:35

A. My understanding is he's proposing to just throw materials from Glaug, as a substitute, in Nakazawa. 10:38:41 10:38:43 10:38:46

Q. Okay. So you understand Petitioners are proposing that Nakazawa's diffusion sheet would either be modified, in view of Glaug's fluid acquisition system; correct? 10:38:47 10:39:00 10:39:04 10:39:08

A. I -- I understand that that's what Dr. Pomodori is saying without even looking at the performance of the materials. One material can't substitute for another material. 10:39:10 10:39:18 10:39:20 10:39:23

They're engineered fabrics and they have particular properties and particular performance attributes. 10:39:27 10:39:29 10:39:33

Q. My question is more basic, just that you understand Petitioners and Dr. Pourdeyhimi are proposing that Nakazawa's diffusion sheet would either be replaced with the fluid acquisition system from Glaug or you would add a layer from 10:39:38 10:39:40 10:39:46 10:39:49 10:39:51

the fluid acquisition system in Glaug; is that correct? 10:39:53 10:39:55

A. I understand his proposal. It's not logical. Understanding fluid mechanics, this would not work. 10:39:55 10:40:00 10:40:07

Q. In what way would it not work? 10:40:09

A. It wouldn't work. A person skilled in the art would know that that would not work. 10:40:13 10:40:18

A Glaug's material is designed for fluid to enter, to pass through from the top sheet, pass through the material into the absorbent core, and not come back. 10:40:20 10:40:25 10:40:29 10:40:33

A diffusion sheet in Nakazawa, which is inserted in between two layers of absorbent material, an upper layer and a bottom layer, allows the fluid to come in, and the diffusion sheet which I believe is engineered to provide better transport of fluid than the absorbents themselves will allow that fluid to not only -- will allow the fluid to both go down and go back up again. 10:40:37 10:40:40 10:40:44 10:40:46 10:40:52 10:40:55 10:40:59 10:41:02 10:41:05

So a diffusion sheet is a two-way system 10:41:06

up and down. Glaug's system is a one-way. 10:41:11

If I use Glaug in place of the diffusion 10:41:18
sheet in Nakazawa, the fluid would go into the 10:41:21
material of Glaug and to the bottom but not come 10:41:26
back to the upper absorbent wouldn't work. 10:41:29

So it's an illogical proposal. 10:41:31

Q. And I think we'll dive into a lot of 10:41:37
that today. 10:41:39

If you turn to Paragraph 29 of Exhibit 10:41:40
2004, we're in your -- your supplemental 10:41:54
declaration. 10:42:01

A. Okay. 10:42:01

Q. Now, the first sentence, you say "The 10:42:02
reference themselves could not be clear in how 10:42:13
they expressly teach away from each other." 10:42:15

Do you see that? 10:42:17

A. Yes. 10:42:18

Q. What is your understanding of what it 10:42:18
means for a reference to teach away from another 10:42:21
reference? 10:42:24

A. Are you asking me for a legal 10:42:27
definition? 10:42:30

Q. When you say, "The references teach away from each other," what do you mean? What's your understanding of what that means? 10:42:30 10:42:33 10:42:35

A. That means that they're recommending you don't do it. 10:42:37 10:42:41

Q. And is that it? They're recommending to not pursue a certain design concept? 10:42:43 10:42:58

A. It's basically saying it's illogical and doesn't work. So if they say it doesn't work, why would you want to pursue it? 10:43:02 10:43:05 10:43:08

Q. Now, the top perforated polymeric film layer is in Glaug, layer 62? 10:43:15 10:43:31

A. In Glaug, layer 62. 10:43:42

Q. That is the 3D apertured polymeric film; correct? 10:43:46 10:43:53

A. I believe that's what Glaug calls it, but I can go back and check. 10:44:00 10:44:02

Q. Sure. It's Glaug Column 8, starting around Line 1. 10:44:04 10:44:07

A. Yes. He references 62 as being a -- what's called a Tredegar product. 10:44:20 10:44:30

Q. And from your time in the industry, 10:44:37

you're familiar with Tredegar products like this described three-dimensional apertured film; correct? 10:44:39 10:44:42 10:44:47

A. Yes. 10:44:47

Q. And what do you know about these products? 10:44:48 10:44:49

A. Could you clarify the question? Are you asking me about the material or what's products? 10:44:54 10:44:55

Q. Sorry. The material -- sorry. 10:44:59

What do you -- fair point. 10:45:00

What do you know about Tredegar -- Tredegar apertured films as described in Glaug? 10:45:02 10:45:07

A. As described in Glaug, commercially available Tredegar -- I think they call it AQUIDRY these days -- is a polyethylene-based film that they heat the film up and run it over a screen that pulls a vacuum down so it will create what we call funnels. 10:45:14 10:45:19 10:45:23 10:45:27 10:45:31 10:45:35

So there's holes that are wider at the top and narrower at the bottom, but it does go through at the bottom because it creates enough vacuum to break that. It's a very, very weak and 10:45:36 10:45:42 10:45:45 10:45:48

flimsy material and it doesn't stretch. It pretty much breaks. 10:45:51 10:45:57

Any pressure on it will collapse the funnels, negating the effectiveness of the 3D funnel. 10:45:58 10:46:00 10:46:05

Q. So the material that's being described in Glaug as being the apertured polymeric film 62 is that Tredegar AQUIDRY film, based on your experience? 10:46:05 10:46:12 10:46:18 10:46:21

A. Based on my experience, that's the standard material in the industry. 10:46:21 10:46:23

Q. And it's still used today; is that correct? 10:46:24 10:46:26

A. I believe it's still used today but I -- I haven't looked at today's products. 10:46:26 10:46:29

Q. Okay. And Glaug teaches that this material helps move fluid into the absorbent article; is that correct? 10:46:31 10:46:38 10:46:43

A. Glaug teaches more than that. I think he references that this material is combined and bonded together with the material underneath it. 10:46:43 10:46:47 10:46:53

Q. Mm-hmm. 10:46:55

A. So it's -- it's a material that's bonded, so you can't pull it apart. It's a combination. 10:46:56 10:47:00 10:47:03

Q. Mm-hmm. 10:47:04

A. So that's what he teaches, it's a combination material. 10:47:04 10:47:07

Q. Okay. And he teaches that the apertured film part of that combination helps with moving fluid into the absorbent article and preventing black -- backflow; correct? 10:47:08 10:47:15 10:47:20 10:47:22

A. Yes. 10:47:24

Q. And that is why, in your view, the design of Glaug would not work in Nakazawa; correct? 10:47:25 10:47:31 10:47:34

A. Correct. 10:47:34

Q. Now, Nakazawa also talks about using the AQUIDRY product, though; correct? 10:47:35 10:47:47

A. I don't recall exactly what it says about the AQUIDRY product. 10:47:49 10:47:51

Q. If you go to Paragraph 177 of Nakazawa -- I guess maybe let's start around Paragraph 171. 10:47:54 10:48:02 10:48:12

There are a number of examples that are described in Nakazawa; correct? 10:48:15 10:48:19

A. This is the section on diffusion sheet? 10:48:22

Q. Yes. Do you see diffusion sheet selection? 10:48:27 10:48:30

A. Yes. I see it says "the diffusion sheet with higher liquid permeability than the absorbent material is used in an absorbent article of the present invention. 10:48:38 10:48:41 10:48:45 10:48:49

"The liquid permeability values of the absorbent material used in the absorbent article were compared to those of diffusion sheets and diffusion sheets were selected." 10:48:50 10:48:52 10:48:55 10:48:58

Q. Okay. And this section of Nakazawa has a number of experiments where they select different diffusion sheets and different absorbent materials and provides data on those different diffusion sheets and absorbent materials; correct? 10:49:00 10:49:04 10:49:08 10:49:10 10:49:13

A. They did a bunch of testing here, and the tables follow -- 10:49:15 10:49:18

Q. Okay. And -- 10:49:19

A. -- at 207. 10:49:21

Q. -- One of the diffusion sheets that she tested is diffusion sheet B, which they describe in Paragraph 177 as the porous film AQUIDRY; correct? 10:49:22 10:49:24 10:49:27 10:49:32

A. They did test that, as defined in 177. 10:49:33

Q. Okay. And that the same material that we were talking about that's described in Glaug? 10:49:43 10:49:47

A. Yes. If you recall, Glaug is a combination, and this is diffusion sheet by itself. 10:49:48 10:49:54 10:49:56

Q. And Nakazawa tests other diffusion sheets, as well; correct? 10:50:03 10:50:05

A. They appear to have tested a number of different combinations in their work in Tables 1, 2, and 3, 4, 5. 10:50:06 10:50:10 10:50:18

Q. And Nakazawa says that the AQUIDRY diffusion sheet provided good results; correct? 10:50:23 10:50:29

A. Where does it say that? 10:50:35

Q. So if we go, for example -- all right. If you go to Paragraph 2 -- let's see. If we look at Paragraph 2 -- hold on for one second. 10:50:39 10:51:04 10:51:10

Paragraph 207, you can see that there's 10:51:14

a table? 10:51:18

A. Yes. 10:51:20

Q. And this is setting out certain examples, including examples with diffusion sheet B? 10:51:22 10:51:24 10:51:28

A. So are you saying in example 7, diffusion sheet B is AQUIDRY? 10:51:28 10:51:41

Q. Correct, which we saw in Paragraph 177. 10:51:43

A. Okay. I need to look at this. 10:51:50

Q. Okay. 10:51:52

A. Okay. What was the question? 10:53:09

Q. Sure. So if we go to Paragraph 221 of Nakazawa -- I guess before I get to Paragraph 221, when you offered your opinions on Nakazawa in Exhibits 2001 and 2004, had you reviewed this part of Nakazawa? 10:53:10 10:53:16 10:53:19 10:53:24 10:53:28

A. Yes. 10:53:30

Q. So if we go to Paragraph 221 -- 10:53:31

A. Well, I think if I look at your suggested Example 5 -- absorbent Example 5, which relates to absorbent Example 7, which is the sheet in question, so if I look at 211, Example 7, it 10:53:36 10:53:39 10:53:45 10:53:48

says, "The absorbent article Example 7 was made in the same manner as absorbent article in Example 5, except that the first diffusion sheet is a porous film of diffusion sheet B used in the selection of the diffusion sheet described above." 10:53:55 10:53:57 10:54:00 10:54:03 10:54:06

So I need to go back to Example 5 to see that the absorbent -- the article is made in the same manner as the absorbent article in Example 4, so they relate back, except the diffusion sheet -- the second diffusion sheet is disposed -- is disposed of on the back of the second absorbent material to cover the region, including the opening and the second hole portion of the absorbent material. 10:54:08 10:54:11 10:54:14 10:54:18 10:54:20 10:54:26 10:54:29 10:54:31 10:54:34

The second diffusion sheet disposed upon the back of the second absorbent material was a bulky nonwoven fabric, an air-permeable, nonwoven fabric, a diffusion sheet used in the selection of the diffusion sheets described above. 10:54:35 10:54:37 10:54:40 10:54:46 10:54:48

My understanding is that Glaug does not use a bulky nonwoven air-permeable fabric under his 3D AQUIDRY film. 10:54:50 10:54:54 10:55:01

Q. Okay. 10:55:05

A. Okay? 10:55:05

Q. Okay. So in Nakazawa, though, it says 10:55:09

that using a porous film -- in Paragraph 221, it 10:55:11

says, "If you use a porous film as a diffusion 10:55:14

sheet, the article has significantly shorter 10:55:17

absorption times than the other examples and were 10:55:23

extremely absorbent." Is that correct? 10:55:25

A. Yes. And it goes on and says the first 10:55:28

diffusion sheet and the second diffusion sheet may 10:55:30

be made of the same materials in the case of 10:55:32

Example 9 in Table 3 or they may be different 10:55:35

materials in the case of Example 7 and 8. 10:55:38

Q. And so Nakazawa is showing that the 10:55:44

AQUIDRY layer works in its product; correct? 10:55:47

A. They're analyzing the table. That's 10:55:50

what they saying. It's an analytic of the table 10:55:55

of the data. 10:55:58

Q. Mm-hmm. 10:55:59

A. Okay? 10:56:03

Q. Okay. And Nakazawa says one of the 10:56:03

examples of its diffusion sheet can be a porous 10:56:05

film like the AQUIDRY layer; correct? 10:56:10

A. Well, they tested a number of different 10:56:11

things, and this is a list of what's been tested. 10:56:16

And then the selection to what they've chosen to 10:56:17

commercialize is -- is one of the selections, but 10:56:19

not what you're saying. 10:56:23

Q. What did they choose to commercialize? 10:56:25

A. They commercialized the diffusion sheet. 10:56:27

Q. And one of the -- I guess I'm confused 10:56:32

because one of the examples of the diffusion 10:56:35

sheets from Nakazawa is the AQUIDRY diffusion 10:56:37

sheet; correct? 10:56:39

A. Mm-hmm. Yes. They tested it. 10:56:40

Q. Okay. And they said that that diffusion 10:56:42

sheet was successful; correct? 10:56:45

ATTORNEY FLANNERY: Object to the form. 10:56:48

THE WITNESS: In Paragraph 111 it 10:56:48

discusses the requirement of a diffusion sheet 10:57:53

made of a material with higher liquid 10:57:56

permeability that is higher diffusion capacity 10:57:59

preferred for the first diffusion sheet, which is 10:58:03

positioned close to the top sheet. 10:58:07

For example, a bulky, nonwoven fabric can be used of the first and second diffusion sheets and a resin-bonded nonwoven can be used as the other diffusion sheet. 10:58:13 10:58:16 10:58:20 10:58:23

In this way, sheets with different production characteristics according to their characteristics. 10:58:24 10:58:25 10:58:27

In the description of the -- of the art and the -- the product, it's not referencing utilizing 3D film from Tredegar. 10:58:28 10:58:32 10:58:37

BY ATTORNEY COHEN: 10:58:41

Q. Why -- 10:58:41

A. I do not see that anywhere of discussions about 3D film being used as a diffusion sheet. 10:58:42 10:58:44 10:58:47

Q. So you're saying that in Nakazawa, you did not see any discussion of using the 3D Tredegar film as a diffusion sheet; is that correct? 10:58:50 10:58:56 10:59:00 10:59:03

A. It doesn't have the permeability of being greater than the upper or lower absorbent cores, and that permeability is what makes the 10:59:03 10:59:08 10:59:12

product work. 10:59:18

Q. Is your opinion that it doesn't have the permeability being greater than the upper or lower absorbent cores based on disclosure in Nakazawa? 10:59:20 10:59:22 10:59:27

A. Nakazawa has a diffusion sheet in between two absorbent cores. In -- in functionality, if a 3D AQUIDRY film is utilized between two absorbent cores in the middle, it will not allow the fluid to come back to the upper core. 10:59:50 10:59:52 10:59:58 11:00:04 11:00:09 11:00:14

It will go in. It will go through the diffusion sheet to the lower core, and it will not utilize the entire amount of the upper core. 11:00:14 11:00:16 11:00:19

The upper absorbent will be underutilized with a 3D fill used in a diffusion sheet. 11:00:25 11:00:28 11:00:31

Q. Okay. So is your -- your opinion as to why Nakazawa and Glaug do not work is because a 3D film would not allow fluid to flow to the backside of the upper absorbent core; is that correct? 11:00:31 11:00:36 11:00:44 11:00:46

A. That's correct. 11:00:50

Q. Now, Nakazawa says, in a few different 11:00:53

places, to use a 3D film; correct? 11:00:56

ATTORNEY FLANNERY: Object to the form. 11:00:59

THE WITNESS: I don't recall Nakazawa saying to use a 3D film. They tested a 3D film. 11:01:02 11:01:03

BY ATTORNEY COHEN: 11:01:07

Q. Well, let's look at some of the disclosures. 11:01:07 11:01:09

A. There's a difference. 11:01:10

Q. First, if you go to Paragraph 68 of Nakazawa, there it says, "When a porous plastic film is used as a diffusion sheet, the shape of the pores in the porous plastic film should be funnel-shaped; that is, the size of the opening in the pores decreases progressively from the front surface to the back surface of the porous plastic film. 11:01:10 11:01:21 11:01:37 11:01:40 11:01:43 11:01:45 11:01:48 11:01:52

"This configuration allows excretory fluid to pass through the pores of the porous plastic film and reduces liquid backflow?" 11:01:52 11:01:55 11:01:57

Correct? 11:02:00

A. Correct. 11:02:01

Q. So there it is saying you can use a 11:02:01

porous plastic film as a diffusion sheet; correct? 11:02:04

A. There it is saying that a porous plastic film reduces fluid backfill -- flow which would result in a very dry upper layer absorbent -- the fluid won't go back up to the absorbent. 11:02:06 11:02:10 11:02:13 11:02:21

The 3D film is like a one-way valve. It lets it go one way down into the product and not let it come back up. 11:02:25 11:02:29 11:02:32

Q. Okay. So you are taking that paragraph to just be a mention of a porous plastic film, but not Nakazawa disclosing that you would use the porous plastic film? 11:02:33 11:02:36 11:02:40 11:02:44

A. I would not see Nakazawa using a porous plastic film and not allowing the fluid to be diffused up and down through the product. 11:02:46 11:02:51 11:02:54

Q. Let's turn to Paragraph 62 in Nakazawa. Now, if you look up above Paragraph 62, you'll see Paragraph 61 and it says "diffusion sheet." And it says, "The diffusion sheet used in the first absorbent article of the present invention," and here it's talking about the configuration where it's on the backside of the -- the absorbent 11:02:57 11:03:09 11:03:12 11:03:15 11:03:17 11:03:20 11:03:22

material; right? 11:03:25

A. The first absorbent material. 11:03:25

Q. And then in Paragraph 62, it says, "Such a diffusion sheet can be made of a nonwoven fabric or porous plastic film." 11:03:27 11:03:34 11:03:38

Correct? 11:03:40

A. I think we're skipping a lot of teaching here. It's -- in 61 it says. "The diffusion sheet used in the first absorbent article of the present invention is disposed on the back surface of the absorbent material to cover the region including the opening in the holes portion formed by the absorbent material." 11:03:40 11:03:43 11:03:48 11:03:50 11:03:53 11:03:56 11:04:00

The diffusion sheet has a higher liquid permeability than the absorbent material. And when the excretory fluid flows into the hole portions of the absorbent material, it can permeate the diffusion sheet and diffuse faster than it can be absorbed by the materials. 11:04:01 11:04:03 11:04:07 11:04:12 11:04:14 11:04:18

So it's being diffused into both layers upward and downward into the absorbent. 11:04:20 11:04:24

Q. Well, in -- the embodiment of the first 11:04:29

absorbent article just has the one absorbent layer, correct, and the diffusion sheet is on the backside of that absorbent layer? 11:04:31 11:04:33 11:04:36

A. This is describing how to construct the product. 11:04:38 11:04:41

Q. Right. But you're familiar with the different embodiments in Nakazawa; correct? 11:04:42 11:04:44

A. I'm familiar with Nakazawa is patenting a diffusion sheet between two absorbent layers. 11:04:47 11:04:54

Q. Well, it also has some disclosures where it's just one absorbent layer and then a diffusion sheet on the backside; correct? 11:04:58 11:05:00 11:05:04

If you want, you can look at the figures? 11:05:05 11:05:06

A. We're taking that out of context. 11:05:07

Q. Well, that's the first absorbent article that's described in Nakazawa; correct? If it helps, you can look at Paragraph 53, and it says, "In the first absorbent article, one, shown in Figures 1 and Figures 2," and then if you go and you look at Figures 1 and Figure 2, there's one absorbent article -- layer, and then the diffusion 11:05:12 11:05:14 11:05:22 11:05:25 11:05:28 11:05:34 11:05:39

sheet on the backside of that later; correct? 11:05:43

A. In this construction, that's what it shows. 11:05:45 11:05:48

Q. Okay. And so then in Paragraph 61, it's talking about the diffusion sheet in the first absorbent article, which is that one layer with the diffusion sheet on the backside? 11:05:48 11:05:53 11:05:56 11:05:59

A. It is talking about the one layer and it's clarifying the diffusion sheet has a higher liquid permeability than the absorbent material. 11:06:03 11:06:07 11:06:10

Tredegar is a plastic polyethylene film that doesn't have permeability. 11:06:13 11:06:17

Q. Okay. But then, Nakazawa says that such a diffusion sheet can be made of a nonwoven fabric or porous plastic film. 11:06:19 11:06:23 11:06:27

And then it lists a number of materials in Paragraph 62. Correct? 11:06:30 11:06:32

A. In Paragraph 62, it refers especially preferred is a bulky carded hot-air nonwoven fabric used in higher thermal bonding or a resin-bonded fabric coarsely formed by chemical bonding. 11:06:33 11:06:55 11:07:00 11:07:04 11:07:06

This is referring to using materials that will diffuse the liquid. I'm having -- I cannot see putting a Glaug 3D film underneath an absorbent. For what purpose? 11:07:07 11:07:11 11:07:18 11:07:22

It's not going to diffuse anything. It's just going to force the fluid in and it would be between the material AQUIDRY and the back sheet, the absorbent back sheet. 11:07:28 11:07:29 11:07:31 11:07:36

So you'd be pulling it underneath the absorbent. I don't understand -- you can't -- you can't function that way. 11:07:38 11:07:40 11:07:45

Q. Well, Nakazawa is saying you can; right? It says you can use a porous plastic film. 11:07:45 11:07:50

And then it describes in Paragraph 68 the porous plastic film can be a 3D film; correct? 11:07:55 11:07:58

A. You're taking different pieces and putting it together. This is going to result in a nonfunctional product. 11:08:04 11:08:06 11:08:08

Q. Well, Nakazawa says to use a porous plastic film and it says that porous plastic film can be a 3D film. And then it shows examples using the Tredegar AQUIDRY film; correct? 11:08:09 11:08:12 11:08:14 11:08:18

A. You're taking different pieces and adding them up. 11:08:21 11:08:24

Q. How do you read a reference? 11:08:25

A. I -- I read the entire product patent, what the intention is, what they're teaching me, and I look at the whole teaching, not one line out of one paragraph and one line out of another paragraph and add them together. 11:08:28 11:08:34 11:08:36 11:08:41 11:08:44

Q. So is Nakazawa to you saying you have to use a bulky carded hot-air nonwoven fabric because that's a preferred embodiment? 11:08:45 11:08:50 11:08:55

A. It's a preferred embodiment. I understand when Nakazawa clearly says the diffusion sheet has a higher liquid permeability than the absorbent material. 11:08:58 11:09:01 11:09:09 11:09:11

I'm saying that Tredegar AQUIDRY has no absorbent characteristics. It's not permeable. 11:09:12 11:09:17

Q. Okay. The first line in that paragraph says, "Such a diffusion sheet can be made of a nonwoven fabric or porous plastic film." Correct? 11:09:21 11:09:25 11:09:27

A. What paragraph are we looking at now? 11:09:31

Q. We're in Paragraph 62, the same one you 11:09:33

were reading from. 11:09:37

A. The diffusion sheet with a property that moves fluid has a higher liquid permeability than the absorbent material is a requirement for the performance of the product. 11:09:38 11:09:41 11:09:45 11:09:49

And what you're equating to is because they recommended some kind of porous plastic film, that it automatically means a Tredegar film. 11:09:50 11:09:53 11:09:56

What I'm saying is Tredegar film does not absorb fluid. It's a different kind of plastic. 11:10:00 11:10:02 11:10:04

Q. Okay. And in Paragraph 68 it says, "When a porous plastic film is used as a diffusion sheet, the shape of the pores in the porous plastic film should be funnel-shaped"; correct? 11:10:05 11:10:10 11:10:13 11:10:16

A. That's Paragraph 68, "When the porous plastic film is used as a diffusion sheet, the shape of the pores in the porous film should be funnel-shaped; that is, the size of the opening of the pores decreases progressively from a front surface to a back surface of the porous plastic film. This configuration allows excretory fluid 11:10:17 11:10:32 11:10:34 11:10:37 11:10:39 11:10:42 11:10:45

to pass through the pores of the porous film and reduce backflow." 11:10:49 11:10:51

But this, again, if we go back to the original paragraph, which I've been talking about, in terms of I think it's 61, the diffusion sheet has higher liquid permeability than the absorbent materials, so I know that Tredegar does not have permeability. It allows flow. So in the paragraph that you referenced, it does allow flow to reduce backflow. 11:10:53 11:10:55 11:10:59 11:11:05 11:11:08 11:11:14 11:11:17 11:11:20

So if you're using a Tredegar film underneath a single layer of absorbent to reduce backflow, then you're pulling the -- the liquid between the Tredegar film and the back sheet and it won't get into the absorbent core. That would not function. 11:11:22 11:11:25 11:11:29 11:11:34 11:11:37 11:11:40

Q. Let's look at some of the examples where they also use the Tredegar film in Nakazawa. Okay? 11:11:41 11:11:43 11:11:47

A. The examples are doing some material testing. They're not talking about use in the entire product. They're material testing. 11:11:48 11:11:50 11:11:54

Q. Let's look at -- we didn't look at this paragraph before, but if you go to Paragraph 200. 11:11:56 11:11:58

A. Okay. 11:12:06

Q. And you see it's under Table 2? 11:12:06

A. Yes. 11:12:13

Q. And one of the examples, Example 2 in Table 2, uses that diffusion sheet B which we saw is the AQUIDRY layer; correct? 11:12:13 11:12:20 11:12:25

A. Diffusion sheet B, I believe, is represented as AQUIDRY. 11:12:27 11:12:40

Q. Okay. And if we look at Paragraph 200, it's reporting on using different configurations, including Example 2 that has diffusion sheet B. 11:12:42 11:12:49 11:12:53

It says, "As shown in Table 2, the absorbent articles in Examples 1 and 2 had saline solution shorter absorption times and better absorbency than the absorbent articles in Comparative Examples 1 and 2?" 11:12:59 11:13:02 11:13:06 11:13:09 11:13:12

And then it says, "Comparative Example 3, which is an absorbent article in which a diffusion sheet is disposed in the same manner as the absorbent articles, in Examples 1 and 2, uses 11:13:14 11:13:20 11:13:23 11:13:24

a diffusion sheet with a lower liquid permeability than the first absorbent material. 11:13:28 11:13:31

"Its saline solution absorption time was longer than that of the absorbent article in Comparative Example 1 which did not use a diffusion sheet?" 11:13:33 11:13:37 11:13:39 11:13:44

Do you see that? 11:13:44

A. Yes. 11:13:45

Q. And so here it is saying that diffusion sheet B provides shorter absorption times and better absorbency; correct? 11:13:45 11:13:47 11:13:56

A. It's the table and the test methodology. 11:13:57

So this has a first absorbent material one, on Page 1 -- Paragraph 189 and the second absorbent material in Paragraph 190, so taking a product and trying to put this material between those. 11:14:32 11:14:34 11:14:40 11:14:44 11:14:47

Q. And, Mr. Sheldon, while you're looking at that, if you look at Paragraph 186, it says that "The porous film of diffusion sheet B has higher liquid permeability than absorbent materials A and B alone"; correct? 11:16:53 11:16:55 11:17:01 11:17:04 11:17:06

A. Yes, Paragraph 186 says that. 11:17:08

Q. Okay. 11:17:37

A. It is clear that the tissue, the diffusion sheet, when disposed upon the top surface of absorbed material, has increased absorption time compared to absorbent material alone and less permeable to tissue -- to that. 11:17:38 11:17:41 11:17:43 11:17:47 11:17:49

So, yes, it's referencing tissue. 11:17:52

Further, it says, "It's clear from Table 1 that the bulky, nonwoven fabric, that air porous nonwoven fabric as a diffusion sheet and the porous film of the diffusion sheet B have a higher liquid permeability than the absorbed materials A and B alone." 11:17:54 11:17:56 11:18:00 11:18:02 11:18:06 11:18:08

It's referencing test pieces A and B. 11:18:08

Q. Okay. So your opinion is that Glaug would not work with Nakazawa because the 3D AQUIDRY layer does not have the right liquid permeability to be used in Nakazawa; correct? 11:18:11 11:18:17 11:18:22 11:18:25

A. No. 11:18:27

Q. What -- what is -- your opinion, I thought, was that the Glaug layer would not work 11:18:28 11:18:30

because it has the 3D-shaped pores that will not allow liquid to diffuse across to the backside of an absorbent material; correct? 11:18:33 11:18:36 11:18:40

A. No. I said that if you put the 3D film in place of Nakazawa's diffusion sheet in the middle of the product, that the 3D film will allow the fluid to pass through rapidly and spread out in the lower core and not come back to the upper core. 11:18:41 11:18:48 11:18:52 11:18:57 11:19:02 11:19:06

The upper part of the absorbent will remain dry. So I've been saying that that's not -- I would -- as a person skilled in the art, I would know that you don't put a -- a -- a funnel in the middle of a product to prevent fluid from going back up when you want to utilize the whole product. 11:19:06 11:19:09 11:19:13 11:19:17 11:19:22 11:19:26 11:19:28

Q. Okay. So -- okay. Let me make sure I understand. 11:19:29 11:19:32

In your opinion, the Glaug layer would not work because it has the 3D-shaped pores that would be between the first absorbent layer and the second absorbent layer; correct? 11:19:32 11:19:36 11:19:39 11:19:41

A. That's my opinion. 11:19:43

Q. And Nakazawa says you can put that material between the two layers and it will work; correct? 11:19:44 11:19:49 11:19:53

That's what it's saying in Paragraph 186 and in its examples where it uses AQUIDRY; correct? 11:19:54 11:19:56 11:20:00

A. I'm not reading -- I'm not understanding that paragraph out of context with everything else that's in this patent. 11:20:00 11:20:03 11:20:07

It's referring to a laboratory test that they're only putting 100 milliliters of fluid in, which is not indicative of what it would be in a real world. 11:20:13 11:20:16 11:20:19 11:20:21

So it's a lab test, and I was looking at Paragraph... 11:20:24 11:20:29

THE VIDEOGRAPHER: And, Counsel, I have 15 minutes, just so you know. 11:21:29 11:21:31

ATTORNEY COHEN: I thought we might be getting towards the end. 11:21:33 11:21:34

THE WITNESS: I'm looking at a number of tables where they're putting in 100 11:21:41 11:21:44

milliliters of fluid, 200 milliliters of fluid. 11:21:46

They did test in one particular case 11:21:50

Example B as a Tredegar film but you have other 11:21:55

components in the product, and... 11:21:58

BY ATTORNEY COHEN: 11:22:03

Q. Does it ever say diffusion sheet B would 11:22:04

not work? 11:22:05

A. I think it's saying in this test method 11:22:07

that quite a few things work. 11:22:26

Q. Including diffusion sheet B; correct? 11:22:27

A. In -- in this particular test method, 11:22:29

which is not indicative of the product 11:22:32

performance, that's what it -- it implies, that it 11:22:34

may work, but I'm still understanding that you 11:22:37

take a 3D film with funnel shaping down in between 11:22:43

two absorbents, it will not absorb to the upper 11:22:47

layer. 11:22:51

Q. So are you ignoring the fact that 11:22:51

Nakazawa says you can use a 3D porous film as the 11:22:53

diffusion sheet? 11:22:58

A. I -- I am not ignoring Nakazawa. I am 11:22:58

saying that taking one table out of context and 11:23:02

saying it works fine is not indicative of what somebody would understand in terms of making the product work. 11:23:05 11:23:09 11:23:11

Q. We looked at a few different places where Nakazawa says you can use a 3D porous plastic film as its diffusion sheet; correct? 11:23:12 11:23:23 11:23:29

A. I don't recall them ever saying you can use it. I recall that they said it's part of what they were testing. 11:23:30 11:23:32 11:23:34

Q. Well, we looked at Paragraph 68, as well, which is part of the section where they describe different materials for the diffusion sheet; correct? 11:23:35 11:23:38 11:23:42 11:23:45

A. It is saying that this configuration allows the excretory fluid to pass through the pores of the porous plastic film and reduce liquid backflow. 11:23:45 11:24:01 11:24:05 11:24:08

And what I'm saying is if you use this in a product, you reduce liquid backflow to the upper absorbent core and it would not be functional. 11:24:09 11:24:10 11:24:13 11:24:16

Q. Does Nakazawa, in its disclosure of the 11:24:18

diffusion sheet, ever say you can use a porous plastic film, but we actually think that's a terrible idea even though we disclose it as an option? 11:24:30 11:24:32 11:24:33 11:24:36

A. They disclose quite a few options, including wrapping the product with tissue, and all of them are somewhat different. But as a person skilled in the art, I would understand -- I would know that if I put a 3D film in between two absorbent layers, the upper layer will not get the full amount of absorbent. 11:24:36 11:24:39 11:24:43 11:24:49 11:24:52 11:24:57 11:24:59

It will go through the 3D film, funnel shape down, and it will go in the lower core. It will not come back to the upper core. 11:25:01 11:25:05 11:25:08

Q. And so then why does Nakazawa say you can use a 3D porous film as its diffusion sheet between two absorbent materials? 11:25:11 11:25:16 11:25:21

A. I'm not sure Nakazawa says you can use it. I think Nakazawa says these are options. 11:25:23 11:25:25

Q. What's the difference there? Sorry. I'm -- let me -- let me phrase this as a better question. 11:25:28 11:25:30 11:25:32

You agree that Nakazawa lists a porous plastic film as optional material for its diffusion sheet; correct? 11:25:38 11:25:41 11:25:43

A. I do not agree with that. I said that Nakazawa does test a 3D film. I reference it, along with many other materials, that these are options. 11:25:44 11:25:48 11:25:51 11:25:53

Q. And I guess when we're looking at Paragraphs 62 to 68, and even 69 and 70, it's discussing a porous plastic film as an option for the diffusion sheet; correct? 11:25:54 11:26:00 11:26:13 11:26:15

A. It referenced that along with other materials for a possible diffusion sheet. But I'm saying as -- as skilled in the art, I would not choose that to utilize in a product because of the issue that I've identified. 11:26:17 11:26:24 11:26:28 11:26:32 11:26:36

It's a one-way valve. Fluid will move to the lower absorbent structure and not come back to the upper absorbent structure. 11:26:38 11:26:41 11:26:44

Q. So your opinion is based on the fact that that's not the preferred or optimal embodiment in Nakazawa; correct? 11:26:46 11:26:49 11:26:55

ATTORNEY FLANNERY: Object to the form. 11:26:56

THE WITNESS: No. I am saying that the fluid will flow through the 3D film into the lower absorbent and the upper absorbent will be underutilized, an inefficient way to make a product. 11:26:57 11:27:02 11:27:06 11:27:07 11:27:12

You will have to have twice the capacity in the lower absorbent core to compensate for the lack of utilization in the upper absorbent core. 11:27:14 11:27:15 11:27:18 11:27:21

That would result in substantial cost increase and it's illogical to do substantial cost increase. 11:27:22 11:27:25 11:27:30

BY ATTORNEY COHEN: 11:27:31

Q. But Nakazawa does say the 3D porous plastic film is an option for its diffusion sheet; correct? 11:27:32 11:27:35 11:27:38

A. There -- I'm not reading it. It's not a preferred option. It's just one of the things they threw out there and tested. 11:27:39 11:27:42 11:27:44

Q. Okay. It's not the preferred embodiment, but it is one of the embodiments they 11:27:46 11:27:48

list; correct? 11:27:50

ATTORNEY FLANNERY: Object to the form. 11:27:51

THE WITNESS: Again, I'm not saying it's an embodiment. They reference the materials because they're trying to write a patent that covers everything out there, everything that the inventor could think of. 11:27:52 11:27:53 11:27:57 11:27:58 11:28:01

They put it in the patent and say these are options. And then the laboratory test data is very limited. It's not performance of a product. It's lab testing with hundred mls of fluid. And hundred mls of fluid are going to give you entirely different results than 300 mls or 500 mls, which would be more indicative of a void. 11:28:03 11:28:04 11:28:09 11:28:12 11:28:14 11:28:17 11:28:19 11:28:23

BY ATTORNEY COHEN: 11:28:25

Q. Okay. So but I guess we do agree that Nakazawa lists 3D porous plastic film as an option for its diffusion sheets; correct? 11:28:27 11:28:30 11:28:34

A. It's described in the patent and they tested it. I don't see Nakazawa saying this is an option or that is an option. I don't see the word 11:28:36 11:28:38 11:28:42

"option." 11:28:45

Q. Okay. It says, "Such a diffusion sheet 11:28:45

can be made of a nonwoven fabric or a porous 11:28:48

plastic film." 11:28:54

Do you understand that to be saying you 11:28:54

can make a diffusion sheet of a porous plastic 11:28:56

film? 11:28:58

A. And I don't understand what their porous 11:28:58

plastic film was. I understand a nonwoven. I 11:29:01

understand a nonwoven can trap fluid in between 11:29:03

the fibers, and that will allow fluid migration XY 11:29:07

up/down. But I'm seeing a plastic film that you 11:29:13

reference with the Tredegar being a one-way valve. 11:29:19

So I can't understand why someone would 11:29:22

put a one-way valve in the middle of a product and 11:29:26

have half the product utilized. 11:29:29

Q. Okay. But they -- you may not 11:29:32

understand that, but Nakazawa does say that one of 11:29:35

its options is a porous plastic film which it 11:29:38

describes as being a 3D porous plastic film; 11:29:42

correct? 11:29:46

A. No. What I'm saying is that anybody 11:29:47

skilled in the art would know that you don't put a barrier halfway through your absorbent product to prevent any fluid utilizing the full product. 11:29:50 11:29:53 11:29:56

Q. My question is: Nakazawa says there are different materials to be used for the diffusion sheet, and it says you can use a porous plastic film and it says porous plastic films can include the AQUIDRY layer or, more agnostically, can have pores that are funnel-shaped. 11:30:05 11:30:07 11:30:09 11:30:13 11:30:16 11:30:23

And so my question to you is Nakazawa is saying that you can use those porous plastic films as a diffusion sheet material; correct? 11:30:24 11:30:26 11:30:31

ATTORNEY FLANNERY: Object to the form. 11:30:36

THE WITNESS: But what I'm saying is utilizing a porous plastic film doesn't result in full functionality of the product. 11:30:36 11:30:41 11:30:45

BY ATTORNEY COHEN: 11:30:48

Q. But Nakazawa says it is a material that could be used as a diffusion sheet; correct? 11:30:48 11:30:50

A. They list it as a material. I don't see Nakazawa saying that you can use this -- I don't see it as a preferred embodiment. 11:30:53 11:30:56 11:31:00

In fact, I would see it as an embodiment that wouldn't work. 11:31:03 11:31:05

Q. Does Nakazawa say the porous plastic film does not work? 11:31:06 11:31:08

A. No. 11:31:09

ATTORNEY COHEN: Why don't we take a break because I think we're running out of time. 11:31:11 11:31:12

THE VIDEOGRAPHER: All right. We are going off the record. The time is 11:31. 11:31:14 11:31:14

(A recess was taken.) 11:39:23

THE VIDEOGRAPHER: We are back on the record. The time is 11:45. 11:45:18 11:45:21

BY ATTORNEY COHEN: 11:45:24

Q. Welcome back, Mr. Sheldon. 11:45:26

Did you talk about the substance of your testimony with counsel during the break? 11:45:27 11:45:30

A. No. 11:45:32

Q. Okay. So we've been talking about Nakazawa and Glaug; correct? 11:45:32 11:45:42

A. Yes, we were. 11:45:44

Q. And both Nakazawa and Glaug state that they have a number of goals for their -- the 11:45:47 11:45:50

product that they're describing; correct? Like performance characteristics that they want them to achieve? 11:45:54 11:45:58 11:46:00

A. Every absorbent hygienic patent has the same goals. 11:46:01 11:46:09

Q. And what are those goals? 11:46:09

A. Improve fluid management, improve dryness. 11:46:11 11:46:13

Q. And so those are the same goals that are stated in Nakazawa and Glaug? 11:46:13 11:46:16

A. And hundreds of other patents. 11:46:18

Q. Okay. Let's turn to the Glaug reference for a bit. 11:46:25 11:46:29

Okay. So Glaug has a fluid acquisition system; correct? 11:46:30 11:46:45

A. It's two layers of materials, yes. 11:46:45

Q. Okay. That -- and Glaug refers to those two layers as a fluid acquisition system? 11:46:50 11:46:55

A. What line is that? 11:46:59

Q. It's kind of throughout. But let's see. If you go to, for example, Column 6 of Glaug, Line 11, there's a paragraph there describing the fluid 11:47:02 11:47:12 11:47:17

acquisition system. 11:47:23

A. Yes. The fluid acquisition system very 11:47:24

thoroughly described detailed layer, mm-hmm. 11:47:32

Q. Okay. And it says for now it includes 11:47:37

at least two layers of materials; correct? 11:47:39

A. Yes. 11:47:41

Q. Is the fluid acquisition system in Glaug 11:47:46

a structure, the two layers of that system? 11:47:52

A. No. I would call it a material layer. 11:47:55

Q. Why are they not a structure? 11:47:59

A. The structure is the whole product. 11:48:01

Layers are layers. 11:48:05

Q. Sorry. So when you say the structure is 11:48:06

the whole product, are you saying the whole 11:48:10

absorbent article? 11:48:12

A. I would say absorbent articles have some 11:48:13

structures to them and I'm saying that just one 11:48:20

material is not a structure. One layer is not a 11:48:23

structure. 11:48:25

Q. Okay. But the fluid acquisition system 11:48:28

in Glaug, you would agree, has two layers; 11:48:31

correct? 11:48:34

A. It describes two layers that are bonded together so it performs as one layer. 11:48:34 11:48:39

Q. And so the two layers together form a structure? 11:48:41 11:48:44

A. No. 11:48:44

Q. Why not? 11:48:44

A. They form a layer. 11:48:45

Q. What's the difference there between two layers being bonded together forming a layer versus a structure? 11:48:47 11:48:50 11:48:53

ATTORNEY FLANNERY: Object to the form. 11:48:55

THE WITNESS: My house is a structure. I've got some electrical guy with some tools in the backyard and some materials. 11:48:58 11:49:00 11:49:03

The materials are not a structure. It's materials. The house is a structure. 11:49:05 11:49:07

BY ATTORNEY COHEN: 11:49:10

Q. But you agree that Glaug discloses joining two different materials to form the fluid acquisition system; correct? 11:49:11 11:49:15 11:49:18

A. That -- that's how it was produced. 11:49:19

Q. And your opinion is that those two 11:49:22

materials when joined together do not form a structure? 11:49:27 11:49:30

A. That's my opinion. 11:49:31

ATTORNEY FLANNERY: Just note my objection to the form. 11:49:34 11:49:35

THE WITNESS: Okay. 11:49:36

BY ATTORNEY COHEN: 11:49:37

Q. What would make them a structure? 11:49:41

ATTORNEY FLANNERY: Same objection. 11:49:46

THE WITNESS: A structure is the composition of a whole product, not one or two layers. 11:49:47 11:49:52 11:49:56

BY ATTORNEY COHEN: 11:49:56

Q. Okay. In Paragraph 32 of Exhibit 2004, your supplemental declaration, on Page 16, like three-quarters of the way through the paragraph, you say, "Glaug's invention requires deterring fluid flow back toward the body"; correct? 11:49:56 11:50:33 11:50:40 11:50:43 11:50:47

I think you might be on the wrong exhibit. Is that 2004? I think you're in 2001. 11:50:58 11:51:00

A. Oh, this one. 11:51:07

Q. Sorry. Your supplemental declaration. 11:51:08

A. Thank you. 11:51:10

Q. Paragraph 32, about three-quarters of 11:51:11

the way through the paragraph. I'm on Page 16 of 11:51:14

your declaration. 11:51:18

A. Okay. 11:51:19

Q. And here you say, "Glaug's invention 11:51:25

requires deterring fluid flow back toward the 11:51:28

body." Correct? 11:51:32

A. Yes. That was the purpose of his 11:51:33

invention was to minimize the backflow to the body 11:51:34

-- away from the body. 11:51:39

Q. And Nakazawa does not want fluid to 11:51:40

contact a user's body after it's been expelled 11:51:45

from that user; correct? 11:51:48

A. Nakazawa doesn't -- is silent on 11:51:57

using -- or actually teaches away from using an 11:51:58

acquisition layer. 11:52:03

Q. Well, Nakazawa doesn't want fluid to 11:52:04

flow back and contact the user after a user has 11:52:06

urinated, for example; correct? 11:52:09

A. Well, the Nakazawa design would allow 11:52:11

for fluid to go into the absorbent cores and 11:52:16

hopefully minimize the fluid that goes back to the user. 11:52:20 11:52:25

Q. Okay. All right. And like if you take Nakazawa and if you look at Paragraph 32, it talks about how its design does not cause excretory fluid to become concentrated in one place. It's more likely to retain the absorbency of the absorbent material. 11:52:25 11:52:32 11:52:38 11:52:47 11:52:49 11:52:52

The absorbed excretory fluid is less likely to flow back, for example, when the wearer applies bodily -- or body pressure to the absorbent article, if the absorption capacity is retained, resulting in less stickiness and better use of the absorbent article; correct? 11:52:56 11:53:00 11:53:02 11:53:04 11:53:07 11:53:09

A. So the goal of both inventions are to improve dryness against the body, and they're doing it two different ways. 11:53:11 11:53:18 11:53:21

Q. Right. And your opinion on why it's two different ways is because Glaug has the 3D cones in its upper acquisition layer? 11:53:22 11:53:31 11:53:36

A. Glaug 3D cones in the acquisition layer are designed to go down into a singular absorbent 11:53:38 11:53:44

core. Nakazawa has two absorbent cores and puts a diffusion layer between them to enhance the fluid movement outward around as it hits the diffusion layer which is -- which is more permeable than the absorbents themselves, and go into the bottom and into the top. 11:53:48 11:53:53 11:53:57 11:54:04 11:54:09 11:54:13

So it tries to utilize the entire product. There's a different approach than Glaug. 11:54:14 11:54:15

Q. In your opinion, what is the diffusion sheet in Nakazawa made of? 11:54:18 11:54:21

A. In my opinion, as was taught by Nakazawa, it's a more permeable material than the absorbents around it. 11:54:22 11:54:27 11:54:30

Q. And Nakazawa discloses an example where the porous plastic film is more permeable than the absorbents around it; correct? 11:54:30 11:54:38 11:54:43

A. They disclose it in one particular lab test taking the fluid straight through and measuring it not in a product. So I disagree that 3D film would not work in a Nakazawa as a diffusion layer in middle of the product. 11:54:44 11:54:47 11:54:49 11:54:55 11:54:58

In the lab testing that you referenced 11:55:02

selectively maybe it'll show some okay results, but it's not how you would engineer a product. 11:55:06 11:55:09

Q. But Nakazawa doesn't say that this wouldn't -- sorry. Strike that. 11:55:11 11:55:15

Nakazawa does not say that the 3D film would not work in a commercial product; correct? 11:55:16 11:55:20

ATTORNEY FLANNERY: Object to the form. 11:55:24

THE WITNESS: Nakazawa appears to be relatively silent on whether that works or doesn't work. 11:55:24 11:55:29 11:55:34

BY ATTORNEY COHEN: 11:55:35

Q. And you didn't do any independent testing for your declaration here to show whether that 3D layer would work or would not work; correct? 11:55:38 11:55:42 11:55:44 11:55:51

A. I did not obtain any of Nakazawa's products in Japan to do testing in '25 when his patent was done in 2007. 11:55:52 11:55:55 11:56:03

I don't know if it would be the same or not, so I think it'd be pretty impossible to test it -- Nakazawa material. I don't know. 11:56:05 11:56:06 11:56:13

Q. Okay. Now, if we go back to Glaug... 11:56:30

Okay. In Column 9, starting at Line 17, there is a long paragraph about the absorbent article. And in this paragraph, it talks about the apertured polymeric layer 62. 11:56:50 11:56:54 11:57:06 11:57:11

Do you see that? 11:57:15

A. Yes. 11:57:16

Q. And it says a lot about how the polymeric layer has three dimensionally-shaped apertures which we've been talking about as the Tredegar AQUIDRY film; correct? 11:57:17 11:57:30 11:57:34 11:57:37

A. Yes, it's three-dimensional. 11:57:41

Q. And it's the material that's being talked about in Glaug as forming layer 32 -- or no -- layer 62? 11:57:44 11:57:46 11:57:51

A. Okay. 11:57:52

Q. Sorry. Did we -- we discussed that, too, correct, that the layer 62 is made of that Tredegar AQUIDRY? 11:57:56 11:58:00 11:58:03

A. I don't know that we discussed it, but my understanding is it is made of Tredegar AQUIDRY. 11:58:04 11:58:06 11:58:10

Q. Okay. And in this paragraph, it talks 11:58:10

about how this arrangement results in a faster and higher fluid volume intake into the diaper, a slower, lower fluid volume output after the diaper has been saturated. 11:58:19 11:58:21 11:58:25 11:58:29

And it says that the fluid is -- flow is faster into the diaper than coming out of the diaper due to that polymeric film. 11:58:30 11:58:37 11:58:39

Correct? 11:58:41

A. That's the intent of his design, that it goes into the absorbent core a little bit faster and comes out a little bit slower. 11:58:43 11:58:47 11:58:50

Q. Now, Glaug did not achieve perfect fluid flow into the diaper; is that correct? 11:58:52 11:59:01

A. In my experience in the absorbent product industry, there are no perfect products. 11:59:08 11:59:09

Q. So some fluid would not have been immediately directed through the fluid acquisition system to the lower absorbent material; correct? 11:59:12 11:59:16 11:59:18

A. I would go with what he is saying is it flows in faster and a higher void volume goes in and a slower and lower void volume comes out due to the design. 11:59:20 11:59:24 11:59:28 11:59:30

Q. Okay. But not all fluid goes immediately into the lower absorbent core; correct? 11:59:31 11:59:36 11:59:38

A. It's a singular core and the fluid would need to go into the core. Otherwise, it would leak into somebody's clothes and on the floor. 11:59:38 11:59:44 11:59:49

So it's designed to manage fluid into the absorbent core and not leak. 11:59:51 11:59:57

Q. Okay. 12:00:00

A. The intention of all products is to not leak. 12:00:04 12:00:06

Q. But I think we talked about how some fluid wouldn't -- it was -- it would try to make all fluid go in the moment that it was voided from a person, but not all fluid would necessarily make it into the lower absorbent core? 12:00:07 12:00:13 12:00:16 12:00:19 12:00:22

A. I -- I believe it -- it's designed for the fluid to go in. So I don't understand how you can say some fluid is not going to go in. 12:00:25 12:00:27 12:00:34

I mean, if it doesn't go in, it's going to run off into the person's underwear and drip on the floor. 12:00:35 12:00:38 12:00:41

Q. Okay. 12:00:42
A. So it's going to go in. 12:00:42
Q. Now, Glaug, in its fluid acquisition system, has a lower layer; right? That 64 lowermost layer? 12:00:47 12:00:50 12:00:58
A. I'm not aware of a lower layer. 12:01:02
Q. In its fluid acquisition system. 12:01:04
A. Well, that's the absorbent core. 12:01:06
Q. Well, okay. Hold on. Let's make sure we're on the same page here. 12:01:09 12:01:18
The lower absorbent core in Glaug is material core 36; correct? 12:01:19 12:01:24
A. Yes. 12:01:26
Q. Okay. And above material 36, there is 48, which is a tissue wrap; correct? 12:01:27 12:01:35
A. Yes. It's standard in the industry. 12:01:38
Q. Okay. When you say "standard in the industry," what do you mean? 12:01:40 12:01:44
A. Most high-speed machines need to wrap the absorbent core to prevent superabsorbent particles from falling out. So if the machine is running very fast, you would want some type of a 12:01:45 12:01:51 12:01:55 12:01:58

wrap around it to prevent particles, wood -- wood -- cellulosic fibers are a little bit longer than superabsorbent particles which are granular, so it's wrapped to keep them together. 12:02:01 12:02:06 12:02:11 12:02:14

However, on some older technology old, slow machines, they may only need to wrap the bottom, the sides, or some rare instances maybe not wrap it at all. 12:02:15 12:02:19 12:02:23 12:02:28

But in this instance, it's just a standard product in the industry. 12:02:30 12:02:31

Q. And is that also referred to sometimes as core wrap? 12:02:32 12:02:39

A. Yes, it can be referred to as core wrap, but really it's just a very, very thin, very, very inexpensive tissue. 12:02:41 12:02:44 12:02:47

Q. Okay. And it can be one or two pieces that are wrapped around the core or multiple pieces? 12:02:49 12:02:52 12:02:57

A. No one would wrap multiple pieces around the core due to cost and manufacturing efficiencies. Having two layers of material do the same function coming into a machine is -- is 12:02:57 12:03:01 12:03:03 12:03:08

expensive for equipment, expensive for having more materials, and I don't know that it's going to assist or improve the product performance. 12:03:11 12:03:15 12:03:20

So I've never seen two layers of core wrap around something. 12:03:24 12:03:27

Q. I think we might be talking past one another. 12:03:28 12:03:30

My question is more if you look at Figure 2 of Glaug, it has that absorbent material 36 and then there are two different element 48s that are the liquid-permeable tissue wrap. 12:03:30 12:03:33 12:03:36 12:03:44

Do you see that? 12:03:49

A. Yes. 12:03:49

Q. My question is more the core wrap could be formed from two different pieces of material, but it would form only a single layer around the absorbent material; is that correct? 12:03:50 12:03:53 12:03:57 12:04:00

ATTORNEY FLANNERY: Object to the form. 12:04:02

THE WITNESS: My understanding is that -- and for whatever reason, they've chosen not to show 48 connected on the sides, but you could theoretically do two separate pieces of 12:04:03 12:04:09 12:04:12 12:04:15

tissue. You could do that, but it's not very efficient, but you could. 12:04:20 12:04:27

BY ATTORNEY COHEN: 12:04:28

Q. And you would join those together to form the core wrap around the absorbent core; is that correct? 12:04:29 12:04:31 12:04:33

A. Normally, we would start with a flatter, bigger, wider piece of tissue and then just fold it over. 12:04:33 12:04:37 12:04:41

Q. Okay. But they're showing a different way to form -- 12:04:41 12:04:44

A. Yes. 12:04:45

Q. -- a core wrap? 12:04:45

But both ways of putting it into the product involve core wrap? 12:04:48 12:04:51

A. Yes. In this example, yes, it shows core wrap. 12:04:52 12:04:57

Q. And now, the core wrap doesn't contribute to fluid-flow control; correct? 12:04:57 12:05:05

A. Not really contributes. It's not a real contributor. 12:05:07 12:05:12

Q. And that's because it's designed to just 12:05:12

allow fluid to flow into the absorbent core; correct? 12:05:18 12:05:21

A. It's designed to wrap the tissue -- it's designed to wrap the absorbent core to prevent the superabsorbent to fall out. 12:05:21 12:05:27 12:05:30

That's what it's designed for. 12:05:32

Q. Okay. 12:05:33

A. Reduce powder fallout. 12:05:34

Q. And because it's designed to wrap the absorbent core to prevent superabsorbent from falling out, it's not part of a fluid-flow control structure, for example? 12:05:36 12:05:40 12:05:43 12:05:48

ATTORNEY FLANNERY: Object to the form. 12:05:50

THE WITNESS: I would not consider it as part of a fluid-flow control structure in light of what Glaug has here. 12:05:52 12:05:55 12:06:01

I don't believe that that tissue is impacting this product performance. 12:06:02 12:06:08

But as I said, there's a variety of pieces of equipment to manufacture these products and some will have tissue wrapped around, some will have tissue only in the bottom or maybe the 12:06:14 12:06:18 12:06:20 12:06:23

sides, and some won't have any at all. 12:06:26

BY ATTORNEY COHEN: 12:06:29

Q. Okay. I think my question is more 12:06:29

generally, you said, the tissue wrap is kind of an 12:06:31

industry standard core wrap; right? 12:06:35

A. I would say in many cases, there's some 12:06:38

type of a light tissue around the product. 12:06:42

Q. And that light tissue core wrap, as it's 12:06:44

used in the industry, would not be part of a 12:06:48

fluid-flow control structure; correct? 12:06:52

ATTORNEY FLANNERY: Object to the form. 12:06:55

THE WITNESS: Again, it depends upon 12:06:57

the structure. It's designed to hold a 12:07:01

superabsorbent in. And I would have to look at 12:07:05

the details. If you're asking is it a fluid-flow 12:07:08

control structure, I would need to know the 12:07:11

detail of the design and what specific designs 12:07:13

are you referring to so I can better answer your 12:07:15

question. 12:07:18

BY ATTORNEY COHEN: 12:07:18

Q. But when it's used the way it's used in 12:07:21

Glaug to hold a superabsorbent in and provide 12:07:24

structure to a core -- an absorbent core, it's not part of a fluid-flow control structure? 12:07:28 12:07:31

A. Well, I never thought of Glaug as having a fluid-flow control structure. I looked at Glaug and it's just an acquisition layer, an improved acquisition layer underneath the top sheet on top of the absorbent core. 12:07:35 12:07:37 12:07:42 12:07:46 12:07:48

Q. And the core wrap that's disclosed in Glaug isn't part of any fluid-flow control in this reference; correct? 12:07:49 12:07:58 12:08:01

A. I don't know. Does Glaug reference a fluid-flow control structure that includes a core wrap? 12:08:06 12:08:08 12:08:11

Q. Well, it has a fluid acquisition system that's two other layers; correct? 12:08:11 12:08:14

A. That's what Glaug references, a fluid acquisition system. 12:08:15 12:08:17

Q. Okay. So let's go back to that because I think we were getting a little confused on what absorbent core is versus the fluid flow -- fluid acquisition system. Okay? 12:08:18 12:08:19 12:08:21 12:08:24

So in Glaug, in Figure 2, we have 12:08:27

element 36 that is an absorbent core; correct? 12:08:31

A. Yes. It's the -- it's the 12:08:33

superabsorbent cellulosic combination. 12:08:38

Q. Okay. And above that is the fluid 12:08:43

acquisition system 34; correct? 12:08:48

A. 34 is the 3D film laminated to a 12:08:51

nonwoven. 12:09:02

Q. Which Glaug says is a fluid acquisition 12:09:02

system; correct? 12:09:05

A. Well, it acquires fluid into the 12:09:07

product. 12:09:12

I want to clarify. You keep going back 12:09:12

to this 48 as a tissue wrapped like it's a 12:09:14

separate thing. 12:09:18

Q. Mm-hmm. 12:09:19

A. It's gossamer thin. It's as thin as you 12:09:20

can possibly make it. And once it wraps the 12:09:24

product, it interfaces with the absorbent and you 12:09:26

can't take it apart. 12:09:30

It can't be a separate entity. 12:09:31

Q. Okay. It becomes part of the absorbent 12:09:33

core; is that what you're saying? 12:09:40

A. In the industry, it would be looked at as part of an absorbent core. 12:09:43 12:09:45

Q. Okay. 12:09:46

A. If you try to dissect a product, which I've done many times, you would take out the entire absorbent core. 12:09:48 12:09:51 12:09:53

You wouldn't be separating out this ultra-thin tissue layer. 12:09:54 12:09:56

Q. Okay. If we go to Column 8 of Glaug, it describes the two layers of its fluid acquisition system. 12:09:58 12:10:06 12:10:13

A. What line are you at? 12:10:14

Q. Starting at Line 1 of Column 8. 12:10:15

A. Okay. 12:10:18

Q. And it kind of really goes to about Line 34. 12:10:19 12:10:25

A. Okay. 12:10:25

Q. But I'm -- the whole column is kind of describing this acquisition system. 12:10:25 12:10:29

And we've talked a lot about the apertured polymeric film 62; right? 12:10:31 12:10:36

A. Okay. What was your question? 12:10:39

Q. It was -- my question was we've already talked about the apertured film 62; correct? 12:11:21 12:11:25

A. Yes, we have talked about that. And Glaug actually references in here two-dimensional film, which is not an apertured film. It's just a film with holes. 12:11:29 12:11:32 12:11:35 12:11:38

Q. Okay. But it also says you can have a three-dimensional film; right? 12:11:39 12:11:44

A. It describes a three-dimensional film. 12:11:45

Q. Okay. So it kind of says you can have a three-dimensional film or a two-dimensional film; right? 12:11:48 12:11:50 12:11:52

A. Mm-hmm. 12:11:52

Q. Okay. And so for the two-dimensional film, would it have the same issues where it's preventing backflow? 12:11:52 12:11:58 12:12:02

A. It would not be as effective to prevent backflow. 12:12:05 12:12:09

Q. Okay. The three-dimensional film is really better at preventing backflow? 12:12:09 12:12:16

A. The three-dimensional film would prevent backflow, but if you can think of a 12:12:18 12:12:21

two-dimensional film like a colander in your kitchen, the intention of it is to take a stream of water and spread it out. 12:12:25 12:12:28 12:12:30

So the two-dimensional film is just spreading out the flow so in some ways it will get into -- it'll cover a wider area of a -- and the absorbency may be a little bit more functional. 12:12:32 12:12:34 12:12:37 12:12:43

Q. Okay. And so Glaug says you could either use that three-dimensional film or that two-dimensional film that will spread out -- 12:12:45 12:12:49 12:12:53

A. Yes. 12:12:54

Q. -- fluid? Okay. 12:12:54

Then it has lower layer 64; correct? It's starting around Line 18. It talks about the lowermost layer. 12:12:55 12:13:09 12:13:13

A. Yes. 12:13:14

Q. Okay. And it says, "64 can be any type of fibrous material," and then it lists a number of types of materials? 12:13:15 12:13:17 12:13:20

A. Yes. 12:13:23

Q. And so the lower layer helps distribute the fluid throughout the absorbent article; right? 12:13:24 12:13:34

I think we can -- if you go to Column 9, Line 36, or Line 34, it says, "The fluid then contacts the lowermost layer where it experiences some lateral distribution." 12:13:38 12:13:48 12:13:52 12:13:55

Correct? 12:13:56

A. Some -- some lateral, yes. 12:13:57

Q. Okay. So the lower layer is helping provide kind of the spreading out of fluid within the absorbent article? 12:13:59 12:14:03 12:14:07

A. The -- the -- the lower level is providing some body distancing, so when the fluid comes through the 3D film to the absorbent core, you won't feel as wet because it's providing a little bit of distancing. 12:14:08 12:14:13 12:14:16 12:14:19 12:14:23

It's got some minimal wicking characteristics, but it's a distancing layer, with the intent of this being improving dryness. 12:14:24 12:14:28 12:14:31

Q. Okay. 12:14:36

A. Or feeling the wetness against the body. 12:14:37

Q. Can you point me to where it says that the lower layer provides distance from the body? 12:14:39 12:14:41

A. It would be known as somebody in the art 12:14:50

that that's what it does. 12:14:53

Q. Okay. But Glaug says that that lower 12:14:54

layer helps with lateral distribution of fluid; 12:15:01

correct? 12:15:04

A. I think it says "some." Where are you 12:15:05

at here? 12:15:10

Q. Column 9. 12:15:10

A. Yeah. "The fluid experiences some 12:15:11

lateral distribution." 12:15:18

Q. Okay. 12:15:20

A. So "some" is a degree. 12:15:21

Q. Okay. Does that layer in Glaug provide 12:15:24

that permeability we were talking about before 12:15:49

with regards to Nakazawa? 12:15:52

A. I would not see that layer as permeable. 12:15:53

Q. Why is that? 12:15:57

A. It's -- it's occluded and bonded to the 12:15:58

3D film so it's going to provide some distancing 12:16:03

to the body. 12:16:08

The 3D film holes are going to provide 12:16:09

the fluid distribution. If there's any lateral, 12:16:11

it's minimal. 12:16:14

Q. I guess we -- in the embodiment where that film layer is 2D, that provides some more lateral distribution with the -- 12:16:16 12:16:21 12:16:27

A. I wouldn't see any difference in lateral distribution. It's dependent upon the nonwoven fabric chosen to be underneath the 3D film or the 2D film. 12:16:29 12:16:32 12:16:37 12:16:42

Q. Why is that? 12:16:42

A. That's the way it works. 12:16:43

Q. Well, before we were talking about for the 2D film you brought up a colander and how it will spread some fluid before it goes through the holes; right? 12:16:45 12:16:49 12:16:54 12:16:56

A. Yes. 12:16:57

Q. Now, that fluid spreading on top of the colander in this Glaug fluid acquisition system wouldn't interact with the lowermost layer before it goes through the hole; correct? 12:16:57 12:17:04 12:17:06 12:17:09

ATTORNEY FLANNERY: Object to the form. 12:17:10

THE WITNESS: I was just explaining how a 2D film may look, but they're going to function similarly. 12:17:10 12:17:13 12:17:16

A 3D film with funnels is going to create the fluid to come into the product, whether it's 2D -- and they're referencing very old technology that existed, you know, a small company in France that went out of business 20, 30 years ago. 12:17:19 12:17:22 12:17:24 12:17:27 12:17:31 12:17:33

There's no difference. It's going to perform to getting the fluid to the next layer. The next layer provides some distancing so the fluid will go into the absorbent. So it's not a wicking layer or distribution layer. It's -- it's an acquisition layer. It's an acquisition combination. 12:17:35 12:17:39 12:17:43 12:17:47 12:17:51 12:17:54 12:18:00

It's designed to acquire fluid into the absorbent core. 12:18:00 12:18:03

BY ATTORNEY COHEN: 12:18:04

Q. So the two layers that are part of the fluid acquisition system in Glaug together perform the same function; is that correct? 12:18:08 12:18:18 12:18:24

A. I would clarify and say they're synergistic. 12:18:26 12:18:33

Q. And what is that clarification? 12:18:40

A. You're saying perform the same function. They're two different layers and they're working in concert with each other synergistically to improve the feeling of dryness, allow the fluid to go through, improve the feeling of dryness versus the body. 12:18:41 12:18:46 12:18:48 12:18:51 12:18:54 12:18:57

Q. Okay. So the two layers that are part of the fluid acquisition system are working together to provide a functionality; correct? 12:18:58 12:19:03 12:19:05

A. They're working to provide a dryness function, the lower level providing some distancing from the absorbent core so you don't feel as wet, and the upper layer funneling fluid into the absorbent. 12:19:10 12:19:14 12:19:16 12:19:18 12:19:23

Q. And Glaug we talked about doesn't say that 64 is there to provide distancing from the body; correct? 12:19:26 12:19:27 12:19:33

A. It would be known in the industry that any nonwoven fabric underneath the 3D film provides distancing. 12:19:33 12:19:37 12:19:40

Q. Okay. But Glaug itself does not say that 64 provides distancing from the body; 12:19:42 12:19:44

correct? 12:19:47

A. It's an industry known. 12:19:47

Q. My question is just does Glaug disclose 12:19:53

that 64 is included to provide distancing from the 12:19:55

body? 12:19:59

A. I don't recall that language. Is it 12:20:00

anywhere in there? 12:20:02

Q. I don't recall seeing it, which is why 12:20:04

I've been asking. 12:20:06

A. Okay. 12:20:07

Q. Glaug says that 64 provides some lateral 12:20:07

distribution for the fluid; correct? 12:20:11

A. Very minimal. As he said, some lateral 12:20:13

distribution. 12:20:19

Q. Well, he doesn't say "very minimal." He 12:20:20

says "some fluid distribution"; correct? 12:20:21

A. Some. Some is not a lot. 12:20:23

Q. And we're talking about small articles; 12:20:24

right? Articles that can go in your underpants, 12:20:37

for example? 12:20:40

A. Yes. 12:20:40

Q. So even minimal distribution is helpful 12:20:40

because it's a small article; correct? 12:20:46

A. Again, it's minimal distribution. The 12:20:48

fluid comes through this conical funnel. 12:20:53

Underneath it is a nonwoven, nonabsorbent material 12:20:56

that has a little bit of wicking. 12:21:04

It increases the area under the funnel, 12:21:05

but these funnels are less than a millimeter. So 12:21:07

you might increase the area to two or three 12:21:09

millimeters, but it's -- it's very minimal. 12:21:12

So it's not providing a wicking 12:21:17

distribution. It's just providing some sponginess 12:21:21

against the body. 12:21:24

These are 40 GSM materials and there's 12:21:25

some thickness to them. 12:21:28

Q. Okay. Now I want to go back to the 12:21:30

combination of Nakazawa and Glaug. And if we stay 12:21:47

in your declaration -- your supplemental 12:22:05

declaration, Exhibit 2004. 12:22:10

A. Yes. 12:22:13

Q. At Paragraph 35, you offer the opinion 12:22:13

that "Nakazawa teaches away from adding multiple 12:22:18

layers under its openings." 12:22:22

Correct? 12:22:24

A. That was referenced in Nakazawa, that 12:22:26

Nakazawa is an improvement over past inventions 12:22:31

such as Glaug where the acquisition layer is 12:22:36

placed on the top of the product. 12:22:39

Q. But I think I'm more talking about your 12:22:40

last line that's on Page 17, "and there is still 12:22:56

no motivation to add another layer between the 12:23:01

diffusion sheet and lower absorbent core as 12:23:04

Petitioners suggest because Nakazawa expressly 12:23:07

teaches that Petitioners' suggestion for adding 12:23:10

such a layer would not work." 12:23:13

Do you see that? 12:23:15

A. Yes. 12:23:16

Q. And that's based on your opinion that 12:23:16

Nakazawa discloses having its hydrophilic sheet 12:23:20

wrapped on the back and sides of the lower 12:23:24

absorbent core? 12:23:27

A. May I reread 85, please? 12:23:33

Q. Yes. 12:23:36

A. I think there was an earlier reference 12:24:15

that I was looking at, too. 12:24:17

I'm looking at Paragraph 9, and Nakazawa goes on to say, "However, in conventional absorbent articles which the diffusion sheet is disposed between the top sheet and the absorbent article, the diffusion layer only expands the absorption area on the top sheet side of the absorbent material and is not sufficient to increase the absorption rate. 12:24:33 12:25:07 12:25:10 12:25:13 12:25:16 12:25:21 12:25:24 12:25:26

"Also, when the diffusion layer is disposed between the top sheet and the absorbent material diffused excretory fluid is absorbed from the top of the absorbent material in a manner no different from absorbent article without a diffusion sheet layer -- diffusion layer and does not solve the problem with excretory fluid being unevenly distributed on the top sheet side and tending to flow back from the top sheet." 12:25:28 12:25:32 12:25:35 12:25:40 12:25:42 12:25:44 12:25:47 12:25:51 12:25:56

What he's teaching me, as someone skilled in the art, is that you don't want an acquisition layer like Glaug on the top of your product because it's not diffusing the fluid all the way out to the ends and filling -- utilizing 12:25:59 12:26:03 12:26:07 12:26:09 12:26:12

the whole product. 12:26:17

Q. Okay. Now, one of your other opinions 12:26:18

that you offer throughout your two declarations is 12:26:25

that a person of -- that there's no motivation to 12:26:28

modify Nakazawa in view of Glaug because it would 12:26:33

add manufacturing costs and complexity; correct? 12:26:38

A. Yes. 12:26:40

Q. How did your discussion about 12:26:41

manufacturing complexity and cost factor into your 12:26:47

obviousness analysis? 12:26:51

A. That was another dimension to my 12:26:53

analysis. When you have a -- a single-layer 12:26:59

absorbent product like Glaug, single absorbent 12:27:05

core, and you have a dual-layer absorbent core 12:27:08

like Nakazawa and -- and they both exist in the 12:27:11

industry and you would have two different ways to 12:27:16

approach design, and my opinion is taking a Glaug 12:27:19

type material and trying to replace a diffusion 12:27:25

sheet in the middle of Nakazawa requires doubling 12:27:29

up the unwinds. 12:27:34

Diffusion sheet in Nakazawa, which I 12:27:37

would expect to be some type of a nonwoven type 12:27:39

fabric, can stretch and be pulled into the process, where Glaug's material, the 3D material, is laminated to a nonwoven, so you lose all the stretch properties of the nonwoven. The 3D is very stiff and very brittle. You have to have a different way to add it to the product. 12:27:45 12:27:48 12:27:51 12:27:53 12:27:57 12:28:00

We actually had, under Glaug, we actually had to bond the nonwoven to the 3D film to process it on our production line because it wouldn't process by itself. 12:28:02 12:28:07 12:28:10 12:28:13

So that's why it has a nonwoven underneath it. Now we had to have that done somewhere else, which adds further cost to the complexity. 12:28:14 12:28:18 12:28:20 12:28:23

So when I sit here and understand the complexity of the processes and how to modify the processes to make different things happen, there's a lot to do. I -- I've -- you know, modified Huggies' baby diapers to put hook and loop on them. Very complex process. We put leg cuffs on diapers, another complex process. 12:28:24 12:28:27 12:28:31 12:28:34 12:28:39 12:28:43 12:28:46

We did the first acquisition transfer 12:28:48

layer back in feminine hygiene to get more distancing through the process. 12:28:52 12:28:58

These are very complex, very big machines. Some are -- have to lend to the football field and then you've got packaging and all sorts of other things. So complexity of the process is -- is part of the analysis. 12:29:00 12:29:02 12:29:07 12:29:10 12:29:13

And, in addition, working in industry, we -- we want a solution and a product that we can sell, manufacture, and get out. We're not an academia which is just inventing stuff that may or may never work and saying whatever they put in the patent. 12:29:19 12:29:23 12:29:27 12:29:32 12:29:36 12:29:40

But the patents that I have and my team has are functional real products that are out in the marketplace. 12:29:40 12:29:43 12:29:45

Q. Okay. Let's break this down. 12:29:46

A. Mm-hmm. 12:29:47

Q. So when you were taking a look at the references and thinking about obviousness -- 12:29:48 12:29:51

A. Mm-hmm. 12:29:53

Q. -- were you thinking about, well, how 12:29:54

would I actually launch a product that did this, and made this combination? 12:29:56 12:29:59

A. No. No. I started to ask myself why. And as I worked with many different creative people in the industry, I'd ask myself, why would they even consider doing this? 12:30:02 12:30:09 12:30:14 12:30:18

So it was starting with the point of why -- what's the motivation to make me do this? And there was no motivation. I mean, we have glasses of water here. We can put a handle on it, but there's no motivation for me to put 12 handles on it. 12:30:20 12:30:24 12:30:28 12:30:31 12:30:36 12:30:38

So I start with is it obvious? Is there a motive to do it? Can we make it better? And as I look at combining these two as you propose, I can't see it making it better. I can see, yeah, you can do it. Maybe, it'd be difficult, but it may not make it better. In fact, in some situations it's going to make it worse. 12:30:39 12:30:42 12:30:46 12:30:52 12:30:56 12:31:00 12:31:04

Q. You said you could do it, it would be difficult. The "difficult" there that you're referring to is in like commercializing a product 12:31:09 12:31:13 12:31:16

and putting a machine line together for it? 12:31:20

A. It's difficult to do it, to begin with, 12:31:22

in terms of if you take a singular diffusion layer 12:31:30

and replace it with a Glaug material, now you need 12:31:35

to understand the equipment themselves, how to -- 12:31:37

how would you go about doing that, but it still 12:31:41

comes back to why? What's the benefit? What's it 12:31:44

providing me? And I'm not seeing any 12:31:49

improvements. In fact, I'm not even seeing it 12:31:50

being equal. 12:31:53

So I'm back to that point. I'm not -- 12:31:55

I'm not seeing it obvious to do this. 12:31:58

And -- and I've seen a lot of products 12:32:01

in the marketplace and there are times you make 12:32:04

obvious changes, yes, we should do this, or, yes, 12:32:06

it makes sense to do that. This -- I'm not seeing 12:32:08

any obviousness. 12:32:13

Q. And that's from the perspective as 12:32:13

someone in the industry who's thinking about 12:32:14

commercializing a product; right? 12:32:16

ATTORNEY FLANNERY: Object to form, 12:32:19

Counsel. He just answered your question. You're 12:32:20

trying to put words in his mouth. 12:32:22

ATTORNEY COHEN: Counsel, you can state 12:32:23

your objection. 12:32:25

ATTORNEY FLANNERY: Yeah, well, ask -- 12:32:25

ATTORNEY COHEN: No speaking 12:32:26

objections. 12:32:27

ATTORNEY FLANNERY: Ask an appropriate 12:32:28

question and don't try to trick the witness, 12:32:29

which is exactly what you're doing. 12:32:30

ATTORNEY COHEN: Stop with the speaking 12:32:31

objection. 12:32:33

ATTORNEY FLANNERY: Stop trying to 12:32:34

trick the witness. 12:32:35

ATTORNEY COHEN: I am asking my 12:32:36

questions. You can state your objection for the 12:32:37

answer and then -- 12:32:39

ATTORNEY FLANNERY: The record reflects 12:32:40

exactly what it reflects. 12:32:41

ATTORNEY COHEN: -- and then stop. 12:32:42

Stop. 12:32:43

ATTORNEY FLANNERY: The record reflects 12:32:43

exactly what it reflects. 12:32:44

ATTORNEY COHEN: I am asking my questions. You can state your objection for the record. I don't need your speaking objections. 12:32:46 12:32:47 12:32:50

ATTORNEY FLANNERY: Don't try to trick the witness and I won't speak. 12:32:53 12:32:55

ATTORNEY COHEN: Do we need to call the board? 12:32:58 12:32:59

ATTORNEY FLANNERY: Nope. 12:32:59

ATTORNEY COHEN: Then just state your objection. You can look up the trial practice guide what the objections are that are appropriate. 12:33:00 12:33:01 12:33:05 12:33:07

BY ATTORNEY COHEN: 12:33:11

Q. My question is, when you were doing your obviousness analysis, was it from the perspective of a person thinking to commercialize a product? 12:33:11 12:33:15 12:33:17

ATTORNEY FLANNERY: Object to the form. 12:33:21

THE WITNESS: No. 12:33:22

BY ATTORNEY COHEN: 12:33:28

Q. Do the claims in the '138 patent require an article that is manufactured for production? 12:33:28 12:33:31

A. I don't understand the question. I'm 12:33:33

familiar with the '138 patent, and you're asking me does it have to be manufactured? 12:33:43 12:33:47

Q. Correct. 12:33:49

A. Well, I don't know if -- I don't know if Nakazawa was ever manufactured. I don't know that. So the patent is the patent. I mean, in reality, you're trying to make something better for consumers. So you have in the back of your mind, consumer first. 12:33:52 12:34:01 12:34:03 12:34:08 12:34:10 12:34:13

Then you've got to look at can -- can I make this protect it, be a -- you know, be the first one out with the product? How do I prevent people from just copying me? There's a lot of people out there just copying. 12:34:17 12:34:19 12:34:23 12:34:27 12:34:29

So -- so I look at it from the obviousness of the -- the patents and what they're telling me and I question why would I want to do that. 12:34:32 12:34:35 12:34:39 12:34:42

Down the road, if you are trying to commercialize something, you obviously need to look at that. But I'm looking at practicality. I'm just looking at practicality. 12:34:43 12:34:46 12:34:48 12:34:54

BY ATTORNEY COHEN: 12:34:56

Q. My question was about the '138 patent 12:34:56

and the patent claims. These claims are to an 12:34:58

absorbent article; correct? 12:35:03

A. Yes. It's an absorbent article having 12:35:04

an intake structure. 12:35:10

Q. Okay. And the claims are not to a 12:35:11

manufacturing process for that absorbent article; 12:35:14

correct? 12:35:16

A. It's -- it's describing an absorbent 12:35:16

article. 12:35:21

Q. And the '138 patent does not disclose 12:35:21

any specifics on how this article is manufactured; 12:35:27

correct? 12:35:30

A. As an engineer experienced in the field, 12:35:30

I know this is a very complicated approach. To 12:35:35

me, it's unique and it's elegant and you have to 12:35:40

build new equipment for this. 12:35:45

Q. Okay. But the '138 patent does not 12:35:46

describe what equipment you would need to build? 12:35:50

A. The '138 patent describes enough 12:35:53

information that an engineering company could 12:35:58

manufacture -- build a machine to make it. 12:36:02

Q. Okay. Now, we were -- when we were talking about Nakazawa, it discloses a number of lab tests that it performed; correct? 12:36:04 12:36:09 12:36:16

A. Yes, it disclosed some -- unique lab tests, unusual and unique or whatever you want to call them. 12:36:20 12:36:24 12:36:27

Q. Why are they, in your opinion? Unique or unusual? 12:36:27 12:36:31

A. Because they're not testing the composite in a product, they're testing layers, and they're testing it with 100 mls of fluid here, 200 there. I mean, it's not real world. 12:36:31 12:36:39 12:36:42 12:36:45

Q. When you were in product design, would you perform lab tests early in the product design process? 12:36:48 12:36:53 12:36:57

A. Yes, I did perform lab tests, and in working for large companies like Kimberly-Clark many times the lab tests gave us misinformation versus what the consumer told us. 12:36:57 12:37:05 12:37:07 12:37:11

So the lab tests are trying to be a predictor of performance, but the actual 12:37:14 12:37:17

performance is measured in the marketplace. 12:37:21

Q. But you would have to file a patent on a product before you sold it to the marketplace; correct? 12:37:24 12:37:28 12:37:30

A. Depending upon the rules of the country, it would be smart to do that. 12:37:31 12:37:34

Q. And so you may not have final consumer-based testing when you file your patent; correct? 12:37:39 12:37:43 12:37:45

A. Help me to understand. I'm not a lawyer, but I thought somewhere along the lines somebody said you have a year's grace from filing a provisional to filing a final patent? 12:37:45 12:37:51 12:37:53 12:37:56

Q. Right. So you have to file -- 12:38:01

A. Is that true? Is that true? 12:38:02

Q. You have to file a patent before you sell a product; is that your understanding? 12:38:03 12:38:05

A. To protect your filing, I believe. And, again, I'm looking to you to tell me, as a lawyer, is that the correct way it works in the U.S.? 12:38:09 12:38:13 12:38:16

Q. I think I'm more wondering about your experience in this field and doing product design. 12:38:18 12:38:22

Would you typically file for patents before you had a commercial launch of a product? 12:38:25 12:38:27

A. My personal approach to some of the products, not all, but a few, we would file provisional application, accumulate more information, and before the product launches a year down the road, we'd finalize it. 12:38:30 12:38:42 12:38:45 12:38:48 12:38:52

The patent is pending for years and years. It can be two, three, four years before the patent is issued. So I don't understand your question. 12:38:54 12:38:57 12:39:00 12:39:03

Q. Well, I think you answered it, which was kind of where in the process of product development would you file a patent application. 12:39:03 12:39:07 12:39:09

And you said it would be before commercialization, if I'm understanding that correctly? 12:39:14 12:39:16 12:39:19

A. Well, in an ideal situation before commercialization, but if you file after you commercialize, it's been disclosed in the market and there's certain rules, depending upon which country you're dealing with, in terms of what you 12:39:19 12:39:24 12:39:25 12:39:27 12:39:30

can and can't say about your product. 12:39:32

My attorney would provide advice and 12:39:44

guidance on that. If I had an idea, want to file 12:39:46

a patent, my attorney, whoever I'm working with, 12:39:49

would provide me the guidance to know what to do. 12:39:52

I'm not a lawyer. I haven't studied law 12:39:55

like you have. So I would rely on my attorney to 12:39:58

provide guidance. 12:40:01

Q. Did you specifically calculate the 12:40:02

impact that the proposed combination of Nakazawa 12:40:09

and Glaug would have on manufacturing? 12:40:11

A. No, I didn't do any calculations. 12:40:13

Q. Did you provide any documents on the 12:40:17

cost increase that would be required for the 12:40:30

Nakazawa and Glaug combination? 12:40:33

A. Everyone who works in the industry knows 12:40:35

that when you add extra materials to a product, 12:40:40

cost goes up correspondingly to your materials. 12:40:44

They also have a factor in engineering 12:40:47

which means the more you add to your line, it's 12:40:51

going to run 95 percent of the time if you had a 12:40:56

single material. If you have two materials, it's 12:41:00

going to be 95 percent times 95 percent. So now you're getting down to about 92. Three materials, maybe you're pushing 89. So it would be less efficient to have -- to just throw in other materials. 12:41:02 12:41:06 12:41:09 12:41:11 12:41:15

However, if the materials help the consumer, then the consumer buys your product. No one is going to focus on the cost. They going to focus on sales. 12:41:15 12:41:20 12:41:26 12:41:28

So it really comes back to what improvements are you providing. And when I looked at this combination that you proposed or Dr. Pomodori has proposed, I don't see a reason why. I just don't see a reason why. 12:41:29 12:41:32 12:41:35 12:41:40 12:41:43

And in the background, we know that we're adding more complexity to more materials, and -- and we have to change the equipment. We'd have to do a number of different things, but it comes back to why. And I don't see a path to improvement for consumers. 12:41:45 12:41:47 12:41:49 12:41:55 12:41:57 12:42:00

In fact, if I combine those, I see detrimental product performance based upon 12:42:02 12:42:05

hundreds of products that I've invented, commercialized, worked for companies, all that. 12:42:09 12:42:12

Q. When you say "detrimental product performance," is that based on the discussion we were having earlier about the 3D cones directing fluid to the lower absorbent material? 12:42:14 12:42:17 12:42:19 12:42:24

A. Yes. 12:42:26

Q. Now, one of your opinions on Page 62 of Exhibit 2001 is that -- let me know when you're there. 12:42:26 12:42:35 12:42:47

A. Okay. 12:43:01

Q. You have an opinion that a POSA would not have a reasonable expectation of success in modifying Nakazawa to incorporate the fluid acquisition system from Glaug. 12:43:01 12:43:06 12:43:09 12:43:12

Do you see that? 12:43:13

A. Yes. 12:43:13

Q. And what is your understanding of what a reasonable expectation of success requires? 12:43:14 12:43:18

A. Some kind of an improvement in performance, in functionality, in consumer desirability. Like I mentioned earlier, we -- we 12:43:24 12:43:27 12:43:31

spent a ton of money and time and effort to commercialize a hook and loop baby diaper, very expensive. More expensive than tapes. 12:43:37 12:43:40 12:43:45

But the consumers, when they powder up their baby or put lotions on the baby's bottom, gets that on the tapes and the tapes don't stick and they don't work and they're not happy. 12:43:47 12:43:50 12:43:54 12:43:56

So we had to do and listen to our consumers and spend a substantial amount of money, cost increases, to make a better product that the consumer wanted. 12:43:58 12:44:01 12:44:04 12:44:07

I'm not seeing here any improvement that's going to move this product forward. 12:44:11 12:44:14

Q. Okay. I guess my question is more just on the reasonable expectation of success. 12:44:16 12:44:19

If you combined the Glaug fluid acquisition system and put it into Nakazawa in place of the diffusion sheet, fluid wouldn't flow out of the absorbent article; right? 12:44:22 12:44:31 12:44:34 12:44:38

A. A fluid -- I can't say it wouldn't flow out of it. It's -- it's somewhat of a one-way valve, so your product won't be as absorbent. 12:44:42 12:44:50 12:44:54

So if you're a consumer using the product and you change from Nakazawa's distribution layer to a Glaug system, you're going to realize pretty quickly your product doesn't absorb like it used to. 12:44:58 12:45:00 12:45:02 12:45:05 12:45:08

Q. Okay. 12:45:10

A. So why would you want to buy it if it's not as good as it used to be? 12:45:10 12:45:12

Q. Okay. Okay. So there's no reasonable expectation of success because it wouldn't have provided an improvement to the consumer? 12:45:16 12:45:22 12:45:24

A. I'm saying I don't see any improvement and, in fact, I see detrimental performance. So I see this as a detriment to the consumer. 12:45:28 12:45:31 12:45:36

Q. Okay. But all the materials that are included would continue to perform the same way that they're known to perform; is that correct? 12:45:39 12:45:45 12:45:47

A. No. 12:45:49

Q. How so? 12:45:51

A. Like I've said, if you add a Glaug system into the product, assuming that the fluid flows to the bottom and performs as usual, the 12:45:52 12:45:55 12:46:01

upper portion of the absorbent core will be drier and less utilized. 12:46:03 12:46:06

So the entire efficiency of your product goes down. 12:46:08 12:46:11

Q. Right. I guess my question was more -- I mean, fluid is going to flow in the way that you would understand it would flow, having worked with the materials before; correct? It's not going to flow in a new, unpredictable way; correct? 12:46:13 12:46:18 12:46:22 12:46:24 12:46:30

A. Fluid flows radially, and you engineer materials to try to flow the fluid more longitudinally to utilize more of your product, because your product is narrower in the crotch than normally length. So you'd want to utilize more of your product by directing the fluid. 12:46:33 12:46:39 12:46:43 12:46:47 12:46:51 12:46:55

So in this situation, you're directing the fluid to the bottom absorbent core and not allowing the top absorbent of the article to function to be dry. It's underutilized. 12:47:01 12:47:02 12:47:08 12:47:10

Q. Okay. 12:47:13

A. Are we due for a lunch break some time? 12:47:28

Q. We could do that. Would you like a 12:47:30

break for lunch? We can do that. 12:47:32

ATTORNEY FLANNERY: Yeah. Why don't 12:47:33

we. 12:47:35

ATTORNEY COHEN: Okay. 12:47:35

THE VIDEOGRAPHER: Okay. We are going 12:47:35

off the record. The time is 12:47. 12:47:36

(A lunch recess was taken.) 12:47:40

THE VIDEOGRAPHER: We are back on the 13:30:31

record. The time is 1:30. 13:30:38

BY ATTORNEY COHEN: 13:30:40

Q. Welcome back, Mr. Sheldon. 13:30:41

Did you discuss the substance of your 13:30:43

testimony with counsel during the break? 13:30:45

A. No. 13:30:46

Q. Now, you offer an opinion on Page 64 of 13:30:46

Exhibit 2001 about Claim 21. 13:30:56

A. Okay. 13:31:13

Q. Do you see that on Page 64 you offer an 13:31:14

opinion on Claim 21? 13:31:16

A. Yes, I do. 13:31:18

Q. And you have an image there of -- I 13:31:29

believe on the left is an annotated figure from 13:31:35

the '138 patent and then on the right is an annotated figure from Nakazawa; correct? 13:31:37 13:31:40

A. I think this is Dr. Pomodori's annotated figure on the right-hand side of the crotch portion. 13:31:42 13:31:50 13:31:52

Q. Okay. Sorry. 13:31:53

A. I think it's his figure. 13:31:53

Q. These are two figures from Dr. Pourdeyhimi's declaration; is that correct? 13:31:55 13:31:57

A. Yes. I think, yes. 13:31:59

Q. And you say, in a side by side com -- there is a side-by-side comparison makes that clear, and the "that" is that -- I think in the following paragraph you say there is, in fact, very little, if any, overlap of the whole portion; is that correct? 13:32:01 13:32:10 13:32:13 13:32:19 13:32:22 13:32:25

A. Could you ask the question a little bit clearer, please? 13:32:29 13:32:31

Q. Sure. You say "There is, in fact, very little, if any, overlap of the whole portion 65 in Nakazawa with the actual crotch portion, as defined in the '138 patent." 13:32:31 13:32:33 13:32:37 13:32:40

Is that correct? 13:32:41

A. So you're putting together Nakazawa and 13:32:42

asking me a question about the '138 patent? 13:32:51

Q. I guess I'm asking about that line that 13:32:54

you have in Paragraph 155. 13:32:56

A. In Paragraph 1 -- "There is, in fact, a 13:33:01

little -- very little, if any, overlap of a whole 13:33:03

portion 65 in Nakazawa," yes, I agree with that. 13:33:06

Q. Okay. Now, the figures that you have on 13:33:11

Page 64, the figure from the '138 patent and the 13:33:19

Nakazawa patent, in those figures the absorbent 13:33:22

articles are not oriented in the way they would be 13:33:28

oriented during use; correct? 13:33:32

A. I -- I would say that the picture of the 13:33:36

'138 product -- patent product on the left-hand 13:33:43

side of the Page 64 is a close rendition of how 13:33:47

somebody may use the product. It may be 13:33:52

positioned a little bit more forward, a little bit 13:33:55

more back, depending upon the personal comfort of 13:33:57

the -- of the user. 13:34:00

I'm saying that Dr. Pomodori's view that 13:34:02

the crotch portion is way in the front of an 13:34:08

anatomically cut-out product is incorrect. 13:34:11

Q. I guess my question is more the front -- 13:34:15

if we -- strike that. 13:34:20

Is it correct to refer to the front of 13:34:26

an absorbent article as the part of the absorbent 13:34:28

article that would be more towards the front of a 13:34:30

person? 13:34:34

A. Yes. It's generally termed in the 13:34:36

industry that absorbent -- rectangular absorbent 13:34:40

product can be positioned front and back slightly, 13:34:46

depending upon how a person chooses to wear it. 13:34:49

Some -- some people would have more 13:34:52

spraying when they urinate and may choose to move 13:34:56

it a little bit more forward. Some folks may have 13:35:00

a little bit of bowel incontinence and they choose 13:35:02

to move it a little bit back. It's a personal 13:35:06

preference. 13:35:09

My example of the product on Figure 1 on 13:35:09

the left is approximately where we would say is 13:35:13

the central crotch portion of the product. 13:35:16

Q. Okay. The image on the left from the 13:35:18

'138 patent, in that absorbent article the front 13:35:29

is actually on the top side of the figure; is that correct? 13:35:36

A. Well, that's what I'm showing in this -- this rendition, yes, it's on the top side. 13:35:40 13:35:42

Q. And in the Nakazawa figure, the front of that absorbent article is actually on the bottom side; is that correct? 13:35:44 13:35:48 13:35:50

A. Yes. Nakazawa shows it that way. 13:35:51

Q. Okay. So I'm going to mark this as Exhibit A to Sheldon deposition. 13:35:55 13:36:00

(Deposition Exhibit A was marked for identification.) 13:36:02 13:36:13

ATTORNEY COHEN: And there's a copy for counsel. 13:36:13 13:36:14

BY ATTORNEY COHEN: 13:36:18

Q. This is a blown-up image from Page 64 of your declaration; would you agree with me? 13:36:18 13:36:28

A. This is the Figure 1, I agree, that came from the '138 patent. 13:36:29 13:36:32

And figure -- the second figure on the right-hand side appears to have come from Nakazami -- Nakazawa, and it appears to have Dr. Pomodori's 13:36:33 13:36:38 13:36:41

definition of the crotch portion. 13:36:47

Q. Okay. I guess I'll represent to you 13:36:48

that what we did is we took a snip of the images 13:36:51

on Page 64 of your declaration and we blew them 13:36:57

up. 13:37:00

Okay? 13:37:00

A. Okay. 13:37:00

Q. Do you see any difference between what 13:37:00

is in the image on Page 64 of your declaration and 13:37:03

our blown-up copy? 13:37:06

A. They look similar. 13:37:12

Q. Okay. So what I'm going to ask -- and 13:37:13

I'm going to hand you a second copy of that -- can 13:37:21

you fold one of those in half so that you only see 13:37:26

one of the absorbent articles? 13:37:31

So, for example, I'm folding this in 13:37:33

half. 13:37:35

A. Okay. 13:37:35

Q. So on one side all I see is the '138 13:37:36

patent. 13:37:40

A. Yes. 13:37:40

Q. And then on the other side all I see is 13:37:40

the Nakazawa figure. 13:37:43

A. Okay. 13:37:44

Q. Okay. Can you take the side with the Nakazawa figure and place it next to what's been marked as Exhibit A and align it with the top of the '138 patent? 13:37:44 13:37:46 13:37:51 13:38:01

A. You mean like this (indicating)? 13:38:04

Q. Correct, so that the front of each article is actually aligned. 13:38:05 13:38:09

A. Well, one article is much longer than the other. 13:38:13 13:38:15

Q. Okay. So is the Nakazawa article much longer? 13:38:15 13:38:17

A. The Nakazawa article appears much longer, but the Nakazawa article has an anatomically cut-out which would go in between the legs. 13:38:17 13:38:20 13:38:24 13:38:27

Q. Okay. 13:38:27

A. Whereas the '138 product doesn't have an anatomical cut-out and can be shifted forward or back, depending upon the user's preference. 13:38:28 13:38:32 13:38:35

Q. Certain embodiments in the '138 patent 13:38:39

have some anatomical cut-outs; is that correct? 13:39:06

A. Let me look at the '138 patent, please. 13:39:11

Yes, they're showing pictures of shaped 13:39:26

products. 13:39:31

Q. Okay. But can you use -- I'm handing 13:39:31

you a Post-It. Can you line up the Nakazawa 13:39:44

figure with the front in the same orientation as 13:39:49

the front on the '138 patent in the Exhibit A that 13:39:52

I gave you? 13:39:56

A. Which figure am I looking at? There are 13:39:57

four figures here. 13:40:01

Q. Sorry. We're going to go back to 13:40:02

Exhibit A. 13:40:04

A. Yes. 13:40:04

Q. I would like you to align the Nakazawa 13:40:04

annotated figure from Pourdeyhimi's declaration so 13:40:09

it's in the same orientation as the '138 patent 13:40:14

that's shown on Exhibit A. 13:40:17

A. It's approximately like that 13:40:19

(indicating). 13:40:22

Q. Okay. And then can you stick them 13:40:22

together with this Post-It note? I don't have 13:40:24

tape on me. 13:40:26

A. (Witness complies.)

Q. Okay. And so there, when they're 13:40:32

oriented in the same way, there is some overlap 13:40:36

between the crotch portion in Nakazawa and the 13:40:40

crotch portion in the '138 patent; is that 13:40:43

correct? 13:40:46

A. I don't understand what you're asking. 13:40:46

Q. Well, if we look at when they're 13:40:52

oriented in -- because I -- let me strike that. 13:40:56

The way that they're shown in your 13:41:01

declaration, the front of the absorbent article of 13:41:06

the '138 patent is oriented in a different way 13:41:09

than the front of the Nakazawa article; correct? 13:41:12

A. I was just using Dr. Pourdeyhimi's view 13:41:16

of what the crotch is, pulling his picture. So 13:41:24

are you saying that he put them in the wrong 13:41:29

direction -- 13:41:33

Q. Well -- 13:41:34

A. -- through your comparison? 13:41:35

Q. -- you're the one who put the comparison 13:41:36

here. 13:41:42

A. I was trying to minimize cut and paste from his declaration and from the patent to make it -- so -- so you don't see me as causing something to be inaccurate. 13:41:44 13:41:47 13:41:55 13:41:57

I'm just trying to put it together. 13:41:59

Q. Okay. 13:42:01

A. Okay. 13:42:02

Q. My question is, for Nakazawa, what is the front of that absorbent article? 13:42:03 13:42:07

A. The front of the absorbent article, as I define on Page 65, is this area in the front with the folding and cupping lines (indicating) for better fluid management. 13:42:09 13:42:15 13:42:20 13:42:23

Q. Okay. And so my question is, in the way you've shown the figures on Page 64, the front of the '138 patent figure is facing up; correct? 13:42:26 13:42:30 13:42:37

A. Correct. 13:42:44

Q. And the front of the Nakazawa figure is facing down; correct? 13:42:44 13:42:47

A. Correct. Yes, I say that. 13:42:48

Q. Okay. And so in -- if you take the Exhibit A that I've had you put together and 13:42:50 13:42:55

fold -- 13:42:58
A. Yes. 13:42:59
Q. -- now the front of Nakazawa is facing 13:42:59
in the same direction as the front of the '138 13:43:04
patent; correct? 13:43:07
A. That's what you've asked me to do, and 13:43:07
the front of the -- of the Nakazawa patent has the 13:43:09
folded lines. 13:43:13
Q. Okay. 13:43:14
A. For better cupping and fit. 13:43:14
ATTORNEY COHEN: Okay. I'm going to 13:43:17
enter as Exhibit B, if we can take -- we'll make 13:43:21
a copy of that during a break so we can enter 13:43:26
that as Exhibit B. 13:43:28
(Deposition Exhibit B was marked for 13:43:29
identification.) 13:43:32
BY ATTORNEY COHEN: 13:43:32
Q. But you can set that aside. 13:43:32
Before you were talking about the Glaug 13:43:42
fluid acquisition system. We had a discussion 13:43:45
about that. 13:43:48
Do you recall that? 13:43:49

A. Yes. 13:43:49

Q. Okay. And one thing that you said was that the Glaug fluid acquisition system is formed to be a single layer, I think is what you said, but let me know if I got that wrong. 13:43:50 13:43:52 13:44:00 13:44:04

A. I said that the two layers were laminated off line for reducing the complexity of adding a second layer to a major production line. 13:44:06 13:44:09 13:44:14

So they were laminated so that they're fed into the production line as one layer, one unit. 13:44:18 13:44:20 13:44:23

Q. Okay. Is that disclosed -- is that part of what's disclosed in Glaug? 13:44:23 13:44:27

A. I don't think it's disclosed in Glaug, except Glaug does reference that they are -- they are -- 13:44:29 13:44:32 13:44:35

Q. I think it says that they're adhered or secured together. 13:44:39 13:44:41

A. They're adhered. They're secured and adhered. 13:44:42 13:44:44

Q. Okay. So then I guess just to make sure I'm understanding, when Glaug says they're adhered 13:44:45 13:44:51

or secured together, you know that they were laminated together to form a single layer from your work with Glaug? 13:44:56 13:44:59 13:45:02

A. I would say that they're glued together. I wouldn't say laminated. 13:45:04 13:45:07

Q. Oh -- 13:45:08

A. Laminated would deform the product -- would deform two layers. 13:45:10 13:45:13

Q. Okay. So -- okay. So the two layers of the fluid acquisition system are glued together; correct? 13:45:15 13:45:27 13:45:30

A. Yes, I would say they are glued together. 13:45:30 13:45:33

Q. And I think -- does that still, in your opinion, make them form a single layer? 13:45:33 13:45:36

A. Well, they're two layers glued together so it's introduced to the production line as a single layer. 13:45:38 13:45:43 13:45:45

Q. Okay. And so in the combination with Nakazawa, in the proposed combination, you would take the -- a single layer, in your opinion, this fluid acquisition system, and put it where the 13:45:46 13:45:56 13:46:01 13:46:06

diffusion sheet is; correct? 13:46:09

A. I think you're asking me about the 3D film and you -- after it's laminated in a Glaug type material, you can't take it apart. 13:46:11 13:46:14 13:46:18

So you can't pull the nonwoven from the 3D film and use the 3D film -- 13:46:20 13:46:23

Q. Okay. 13:46:26

A. -- by itself. 13:46:26

Q. I guess my question more is in the proposed combination where we propose replacing the diffusion sheet in Nakazawa with the fluid acquisition system in Glaug. 13:46:27 13:46:29 13:46:36 13:46:39

Do you have that in mind? 13:46:40

A. I understand what you're asking. 13:46:41

Q. Okay. So in that, you would just take the single fluid acquisition system layer and put it into Nakazawa; correct? 13:46:42 13:46:44 13:46:47

A. That's what you're proposing. 13:46:48

Q. Okay. 13:46:51

A. I would never do that. It doesn't make any sense. But that's what you're propose -- requesting. 13:46:52 13:46:54 13:46:56

Q. Okay. And it doesn't make sense to you because of the 3D cone issue that we were discussing before? 13:46:57 13:47:00 13:47:04

A. You have the 3D cone issue and now you have a nonwoven laminated to it, and Nakazawa did not test that combination in any of his work. 13:47:04 13:47:07 13:47:10

Q. Okay. 13:47:13

A. So we would be -- it would be an unknown what the impact would be. And as somebody in the art would look at it and say, logically, that doesn't seem to make any sense. It doesn't act as a distribution layer. 13:47:14 13:47:17 13:47:21 13:47:24 13:47:28

Q. Okay. Though Glaug does say that one of the layers provides some lateral distribution; correct? 13:47:30 13:47:36 13:47:38

A. Some. And what I'm saying is we've known in the art and from working with all of these materials for my entire career, your "some" distribution is very minimal. 13:47:39 13:47:43 13:47:45 13:47:49

Q. Okay. 13:47:50

A. It's not zero, but it's not 10 percent. It might be 1, 2, 3 percent. It's some. It's not 13:47:51 13:47:56

a lot. 13:47:59

Q. What does Nakazawa say what percentage of distribution it needs for its diffusion sheet? 13:48:00 13:48:09

A. The entire diffusion sheet is a distribution layer. 13:48:13 13:48:15

Q. Okay. But it doesn't say we need to distribute fluid at X percentage, does it? 13:48:16 13:48:22

A. It's a distribution sheet, and one would understand that distribution would occur about 100 percent of the time. 13:48:26 13:48:31 13:48:33

Q. Okay. But that disclosure is, to be clear, not in Nakazawa? 13:48:40 13:48:41

A. It's called a distribution sheet so you would assume that it distributes fully. You wouldn't assume that it partially distributes fluid or limitedly distributes fluids. It distributes fluid. 13:48:45 13:48:47 13:48:50 13:48:53 13:48:56

It is what it is. It says what it says. 13:48:57

Q. Well, it calls it -- sorry. It calls it a diffusion sheet, just to be clear. 13:48:59 13:49:01

A. Diffusion. 13:49:03

Q. In your view, are diffusion sheet and 13:49:07

distribution sheet the same thing? 13:49:09

A. Well, you -- yes. You diffuse and 13:49:18

distribute. 13:49:20

Q. Okay. But in adding the fluid 13:49:21

acquisition system to Nakazawa, it would involve 13:49:31

putting the glued-together layer in between the 13:49:36

two absorbent materials; correct? 13:49:39

A. Yes. 13:49:42

Q. Okay. And Nakazawa already shows kind 13:49:42

of put in a single layer between two absorbent 13:49:47

materials; correct? 13:49:49

A. Nakazawa shows some testing that they've 13:49:50

done, but Nakazawa doesn't teach me to place that 13:49:53

material in place of its distribution sheet. 13:49:58

Q. Okay. And are you looking for a 13:50:01

teaching in Nakazawa to provide that combination? 13:50:04

A. I'm -- I'm looking at my experience in 13:50:08

the industry. I'm looking at the experience of 13:50:11

many other scientists that made many different 13:50:14

kinds of products, single-layer products, 13:50:17

dual-layer products, and I'm not seeing any 13:50:20

teaching or reason or cause to do what you're 13:50:23

proposing. 13:50:27
It's not logical. 13:50:28
Q. Okay. 13:50:30
A. There's no overlying need to make that 13:50:30
change, to move to an inferior distribution sheet. 13:50:36
Q. Okay. And that's based on the idea that 13:50:40
Glaug uses those conically-shaped apertures; is 13:51:00
that correct? 13:51:03
A. It's based on the requirements that 13:51:03
Nakazami -- Nakazawa taught me that it's a 13:51:05
diffusion sheet and it needs to diffuse fluid and 13:51:10
-- and move between the two layers up and back, as 13:51:13
well as diffusing it outward and longitudinally. 13:51:17
Q. You also offer opinions on the 13:51:22
combination of Nakazawa and Ponomarenko; correct? 13:51:34
A. Yes. 13:51:41
Q. I'm handing you First Quality Exhibit 13:51:41
1007. A copy for your counsel. And for the 13:52:08
record, this is Patent No. 7,956,236, and this is 13:52:19
the Ponomarenko reference that you took a look at; 13:52:24
correct? 13:52:27
A. Yes. 13:52:27

Q. Okay. So if we turn to Paragraph 172 of Exhibit 2001, your first declaration, which is on Page 72, Paragraph 182, you say, "A POSA would not see an invention design for feces management in a mobilization like Ponomarenko and be motivated to transfer the feces immobilization elements from that reference to an invention like Nakazawa which is designed for fluid infusion," correct -- or "fluid diffusion." Sorry. 13:52:28 13:52:41 13:53:04 13:53:09 13:53:12 13:53:16 13:53:19 13:53:22 13:53:25

A. Yes. 13:53:27

Q. Now, Nakazawa is also a diaper; correct? 13:53:27

A. Yes. It appears, yes. 13:53:38

Q. Okay. And Ponomarenko is a diaper, too; correct? 13:53:39 13:53:42

A. Ponomarenko is definitely a diaper. 13:53:42

Q. Okay. And Nakazawa can be a diaper as well as other, like, incontinence pads? 13:53:45 13:53:48

A. It may be, yes. 13:53:51

Q. And I think they also mention feminine hygiene products? 13:53:52 13:53:55

A. Yes. They're absorbent products. 13:53:55

Q. Okay. Now, Nakazawa, when used as a 13:54:00

diaper with babies, would also need to handle feces management; correct? 13:54:04 13:54:07

A. Nakazawa's direction is feces management -- excuse me. Ponomarenko -- you're confusing me. Sorry about that. 13:54:09 13:54:13 13:54:18

Ponomarenko is all about feces management. 13:54:20 13:54:23

Q. Okay. And my question is because Nakazawa is also a diaper, it would need to also deal with feces management; correct? 13:54:23 13:54:25 13:54:29

A. Not necessarily. This Ponomarenko is addressing a need in the marketplace at the time, which was nursing mothers' babies have runny BMs, and this is all about how to manage the runny BMs, not the solid BMs of an adult or some other person, but this is oriented towards managing heavy viscosity BM for children. 13:54:31 13:54:35 13:54:42 13:54:45 13:54:49 13:54:53 13:54:57

Q. Okay. But when Nakazawa is used as a diaper, it would also need to deal with feces management; right? 13:55:01 13:55:07 13:55:13

A. I -- in my opinion, just for the first time thinking about this, it would be a poor -- a 13:55:15 13:55:21

poor design to do feces management compared to Ponomarenko. 13:55:31 13:55:34

Q. Okay. But I guess my question is, like, I -- I have two children. 13:55:35 13:55:39

A. Mm-hmm. 13:55:41

Q. When using a diaper on small children, you need them to deal with both feces and urine; correct? 13:55:41 13:55:46 13:55:49

A. Diapers are designed to do that. 13:55:50

Q. Okay. 13:55:52

A. Baby diapers are designed to do that. 13:55:53

Q. And Nakazawa is a diaper; correct? 13:55:56

A. Well, it's an absorbent product. I don't know if they call it a diaper. 13:56:02 13:56:06

Q. We can look at where they call it a diaper. Give me a second. Paragraph 29. They mention a diaper. 13:56:07 13:56:10 13:56:29

A. Yes, they do. 13:56:30

Q. Okay. And then also Paragraph 223, again, they mention that this can be used as diapers? 13:56:31 13:56:48 13:56:50

A. Yes, it can, but as I've stated, it 13:56:50

would be a very poor-performing diaper because it doesn't have any leg cuffs or leg gathers in it. 13:56:56 13:56:59

Q. Okay. 13:57:04

A. It doesn't have any attachment means or mechanisms. So it would just be positioned in the body to just hang in your underwear. 13:57:04 13:57:06 13:57:10

Q. Well, forgive me, but I think that if you look at Figure 27 of Nakazawa, at least based on my experience with diapers, that, to me, looks like a diaper -- 13:57:14 13:57:17 13:57:23 13:57:26

A. Yeah. 13:57:27

Q. -- that could be used on a baby, but let me know if you think that's incorrect. 13:57:27 13:57:29

A. I think it could. 13:57:31

Q. Okay. Okay. So Nakazawa does have some embodiments that are used as baby's -- sorry. Strike that. 13:57:32 13:57:37 13:57:41

Nakazawa has some embodiments that are used as diapers and in Paragraph 223 it says "with infants"; correct? 13:57:41 13:57:44 13:57:47

A. Yes. 13:57:48

Q. Okay. So for -- when being used as a 13:57:49

diaper for an infant, it would also need to deal with feces management; correct? 13:57:53 13:57:55

A. It would have to deal with feces management, but it's not -- there's no system to deal with it. 13:57:57 13:58:01 13:58:06

Q. Okay. 13:58:07

A. It's just going to be left on the surface. 13:58:07 13:58:09

Q. Okay. Now, one opinion you offer in Paragraph 173 -- or, actually, give me one second. Okay. 13:58:09 13:58:29 13:58:42

In Paragraph 170 of your declaration, in Exhibit 2001, you say, "In contrast, Ponomarenko never refers to sublayer 30 as having any impact on fluid flow." 13:58:42 13:58:51 13:58:55 13:58:58

Did I read that correctly? 13:58:59

A. I -- I don't recall it saying -- I thought it was pretty silent on fluid flow or it's not an improvement for fluid flow. 13:59:02 13:59:08 13:59:12

Q. Okay. But I think -- let's take a look at Ponomarenko, Column 7, Line 8. It starts with, "In general, the sublayer" -- and if you want to 13:59:14 13:59:15 13:59:38

read that. 13:59:41

A. Yes. 14:00:00

Q. Okay. So at least in the beginning of this paragraph, it says "The sublayer 30 serves as an acquisition layer and, optionally, also as a distribution layer capable to acquire liquid urine and temporarily hold liquid and allow it to pass or transport it to the absorbent core underneath and, optionally, also distribute it in the X and Y direction of the sublayer." 14:00:00 14:00:02 14:00:07 14:00:11 14:00:14 14:00:17 14:00:20 14:00:24

Correct? 14:00:25

A. Yes. 14:00:26

Q. Okay. So here, Ponomarenko is mentioning how that sublayer 30 will handle fluid flow; correct? 14:00:26 14:00:28 14:00:33

A. It's pretty much every single product out in the marketplace handles it the same way is what Ponomarenko discusses. 14:00:33 14:00:36 14:00:39

Q. Okay. 14:00:41

A. I don't see this as an improvement. 14:00:41

Q. Okay. And you were looking for an improvement in Ponomarenko? 14:00:43 14:00:48

A. No. I was looking at Ponomarenko teaching me about feces management. 14:00:49 14:00:52

Q. Okay. 14:00:54

A. Not urine management, but feces management, which is real critical to young children with runny BMs. 14:00:55 14:00:58 14:01:01

Q. Okay. 14:01:03

A. Or parents of those children who have to change those diapers. 14:01:06 14:01:09

Q. So when you were analyzing Ponomarenko, did you only review it for the inventive aspects it disclosed? 14:01:10 14:01:16 14:01:22

A. No. I was asked to look at Ponomarenko as a replacement in Nakazami's [sic] distribution layer, and what I realize is Ponomarenko is pretty complicated. 14:01:24 14:01:28 14:01:34 14:01:40

It's got a couple layers of nonwovens in the top for managing the feces to create a pocket. It's got a number of indentations and blind holes, as they call them, which would just be indentations, right on the surface to manage the BM fluid. 14:01:41 14:01:45 14:01:48 14:01:52 14:01:55 14:01:59

And what I said was if you take that structure and put it in the middle of Nakazami [sic] with absorbents on top and bottom, it really -- BM doesn't get to it. It doesn't function as designed. It's just, why would you do that? It doesn't -- doesn't make sense to me that you would take that element and that performance and move it away from where the BM is. 14:02:00 14:02:02 14:02:06 14:02:10 14:02:13 14:02:16 14:02:19 14:02:23

Q. Okay. But Ponomarenko also says that same sublayer provides acquisition and distribution properties for the fluid; correct? 14:02:24 14:02:30 14:02:34

A. As on the top sheet, pretty much any material on the top provides acquisition, which means it's allowing fluid to come through and it's providing a little bit of distribution into the upper core , the upper absorbent core. 14:02:37 14:02:42 14:02:45 14:02:48 14:02:52

Q. Okay. The distribution part of that is what you said is really important about the diffusion sheet in Nakazawa; correct? 14:02:54 14:02:59 14:03:02

A. Yes. 14:03:04

Q. Okay. And so the sublayer in Ponomarenko does provide distribution that 14:03:04 14:03:07

Nakazawa says is required for the diffusion sheet; correct? 14:03:12 14:03:14

A. No. 14:03:15

Q. How so? 14:03:17

A. Nakazawa talked about the permeability of their distribution sheet. When I look at Ponomarenko, it's standard, nonwoven materials. There's minimal distribution compared to what Nakazawa says he's required in between layers. 14:03:19 14:03:21 14:03:24 14:03:28 14:03:31

So when you have a material between two layers, the properties are significantly different than putting material on top of the product. 14:03:34 14:03:39 14:03:42

Q. Ponomarenko itself says that the sublayer distributes it -- the liquid -- in the X and Y direction of the sublayer; correct? 14:03:45 14:03:51 14:03:55

A. That's what they're trying to do, and they're referring to feces management. 14:03:58 14:04:02

Q. Okay. Well, but here in that Column 7, Line -- like, about Line 13, they're referring to urine; right? 14:04:04 14:04:07 14:04:12

A. Yes. They're referring to acquiring urine and holding it and allowing it to pass or 14:04:13 14:04:21

transport to the absorbent core underneath. 14:04:24

So it's a Z direction transport. 14:04:26

Q. And then it says, "And optionally also distribute it in the X and Y direction of the sublayer"; correct? 14:04:28 14:04:31 14:04:34

A. Yes. 14:04:34

Q. Okay. And it does not say, "optionally, provide minimal distribution in these directions"; correct? 14:04:35 14:04:38 14:04:41

A. It -- it, in addition, it does not say anything about providing Z direction back toward the body, which would -- you would need if you had a distribution layer in the center of a two-layer product. 14:04:42 14:04:44 14:04:48 14:04:51 14:04:53

Q. Okay. But I guess my question wasn't really about that. You didn't quite answer my question. 14:04:53 14:05:02 14:05:04

My question was Ponomarenko does not say that sublayer 30 provides minimal distribution in the X and Y direction; correct? 14:05:05 14:05:08 14:05:13

It says, "Optionally also distribute urine in the X and Y direction"? 14:05:16 14:05:20

A. But it's also silent in distributing fluid back up towards the body. 14:05:21 14:05:24

Q. I know, but that's not my question. 14:05:27

My question is it does not say, "provide minimal distribution in the X and Y direction for urine"; correct? 14:05:28 14:05:34 14:05:37

A. I would know this, having worked with this type of material for quite a substantial amount of time, that you don't get a lot of distribution in the X and Y direction. 14:05:38 14:05:40 14:05:43 14:05:45

It's all Z into the product. 14:05:48

Q. Okay. So your understanding of Ponomarenko only providing minimal distribution is not based on the disclosure in Ponomarenko, but your experience; correct? 14:05:49 14:05:53 14:05:57 14:06:01

A. My experience, the knowledge of the material science making the nonwoven top sheet, the manufacturers of the nonwoven top sheet. 14:06:02 14:06:05 14:06:09

Everyone knows that you're -- you don't -- it's not a -- a distribution layer as in Nakazami. 14:06:12 14:06:15 14:06:21

Q. Well, sorry. Sublayer 30 is not the top 14:06:22

sheet; correct? 14:06:28

A. No. It's underneath the top sheet. 14:06:29

Q. Okay. I got confused because your 14:06:31

answer was about the nonwoven top sheet. 14:06:33

A. They're both nonwoven. 14:06:37

Q. Okay. Let me go back to my question, 14:06:38

then, because I think you were answering about a 14:06:40

nonwoven top sheet, which is not what I was asking 14:06:42

about. 14:06:44

Your understanding of Ponomarenko's 14:06:44

sublayer 30 only providing minimal distribution is 14:06:47

not based on the disclosure in Ponomarenko, but 14:06:51

your experience; correct? 14:06:54

A. It's based upon my experience and the 14:06:55

lack of disclosure in this that it's a diffusion 14:07:01

sheet. 14:07:04

They don't call it a diffusion sheet in 14:07:05

the nature of moving urine through the length of a 14:07:07

product. 14:07:11

Q. Okay. But they -- they do say that 14:07:11

sublayer distributes urine in the X and Y 14:07:14

direction; correct? 14:07:16

A. It does say that. 14:07:17

Q. Okay. What would it need to say for you to say that it had a distribution layer? 14:07:23 14:07:26

A. It would -- it -- you're asking a hypothetical. I'm just trying to rely on what's in the patent and the teachings, and physically seeing the product, taking it apart, looking at the performance of this product that came out when I was working. 14:07:28 14:07:31 14:07:34 14:07:37 14:07:40 14:07:44

This is a novel and unique upper layer fluid-management system for BM. 14:07:47 14:07:53

Q. Okay. Sorry. Are you talking -- did you actually look at the product that's described in Ponomarenko when you were working in the field? 14:07:54 14:07:55 14:07:58

A. Yes. 14:08:01

Q. Okay. And so are your opinions about what Ponomarenko is disclosing based on that analysis that you performed when you were in the field? 14:08:01 14:08:05 14:08:08 14:08:10

A. No. 14:08:10

ATTORNEY FLANNERY: Object to the form. 14:08:10

BY ATTORNEY COHEN: 14:08:12

Q. Okay. 14:08:12
A. That's -- no. 14:08:12
Q. So -- 14:08:14
A. It's supplemental to what the patent was teaching. 14:08:16 14:08:18
Q. Okay. Because my question originally was you -- you said -- I asked about your understanding of Ponomarenko's sublayer 30 only preventing minimal distribution, and I said, "That's not based on the disclosure in Ponomarenko, but your experience." 14:08:18 14:08:21 14:08:27 14:08:30 14:08:34 14:08:36
You said, "It's based upon my experience and the lack of disclosure in this that it's a diffusion sheet." 14:08:38 14:08:40 14:08:44
And I said, "It says that the sublayer distributes urine in the X and Y direction"; correct?" 14:08:45 14:08:48 14:08:52
And you say, "It does say that." 14:08:52
And so then my question is, when you said, "It's based upon my experience and the lack of disclosure in this that it's a diffusion sheet," what disclosure would you need to say 14:08:54 14:08:56 14:08:58 14:09:01

that's a diffusion sheet? 14:09:06

A. I would need to know the material 14:09:08

compositions and the properties of the materials 14:09:14

that you're referring to as a diffusion sheet. I 14:09:17

would need to know the permeability of that 14:09:21

material. And -- and I'm reading this as it 14:09:23

pretty much works just like any other absorbent 14:09:30

article for urine management. 14:09:33

There's not anything that I see 14:09:35

inventive in terms of urine management. I see the 14:09:39

inventive part is managing BM, runny BM, liquid 14:09:42

BM, managing for children. 14:09:49

Q. Okay. 14:09:52

A. So that's what I see in this disclosure. 14:09:53

Q. And to be clear, when you're -- when 14:09:58

were talking about this disclosure, you're talking 14:10:01

about Ponomarenko? 14:10:04

A. Ponomarenko. 14:10:06

Q. When you were reviewing Ponomarenko, you 14:10:07

looked at what was inventive in Ponomarenko? 14:10:12

A. I looked at the whole patent, and I 14:10:17

looked at the key area of BM fluid management in 14:10:21

addition to the other elements it referenced. 14:10:26
Q. Okay. The sublayer 30 in Ponomarenko 14:10:29
does provide two different functions, though; 14:10:35
correct? 14:10:38
A. Can you refresh me on what the two 14:10:38
separate functions are for sublayer 30? 14:10:46
Q. Fair. We've been talking about how 14:10:48
sublayer 30 does provide some urine flow 14:10:50
management; correct? 14:10:56
A. Okay. When I looked at sublayer 30 and 14:10:57
it talks about typically fibers or fibrous and 14:11:02
said fibers may be nonbonded, so nonbonded fibers 14:11:07
in the sublayer, it's a loose collection of 14:11:14
fibers. Kind of like fluffy cotton designed to 14:11:17
slow the flow of BM management. 14:11:24
The fluffy material, I don't see that 14:11:28
impacting urine management. 14:11:31
Q. Okay. Even though Ponomarenko does also 14:11:36
say, in Column 7 what we've been looking at, that 14:11:40
sublayer optionally also distributes urine in the 14:11:43
X and Y direction; correct? 14:11:47
A. It can do that, but I was looking at 14:11:48

Column 37 on -- Column 6, Line 37, that it teaches me how they made the sublayer -- the types of materials in the sublayer, and I would understand that the sublayer is somewhat of a loose -- a loose collection of fibers. 14:11:52 14:12:00 14:12:07 14:12:09 14:12:12

Q. Okay. Now, it says here, if we look at where you just pointed me to, Column 6, Line 37, it says, "The sublayer typically comprising fibers or is fibrous and said fibers may be nonbonded or bonded with a binder"; right? 14:12:14 14:12:30 14:12:34 14:12:37 14:12:41

A. Yes. 14:12:45

Q. And so I guess how do you use the term "typically"? 14:12:46 14:12:51

A. I'm saying that the sublayer typically comprise of fibers -- or fibrous, and fibers may be not bonded or bonded with a binder. 14:12:56 14:12:58 14:13:00

Q. Does that mean that sublayer has to be made of fibers? 14:13:02 14:13:04

A. I would say it's -- 14:13:07

ATTORNEY FLANNERY: Object to the form. 14:13:08

THE WITNESS: Sorry. 14:13:08

I would say typically means what it 14:13:10

says. It's typically done that way. 14:13:13

BY ATTORNEY COHEN: 14:13:16

Q. Okay. So it typically -- sometimes it's done that way but not always? 14:13:16 14:13:20

A. I didn't say that. 14:13:21

Q. Okay. Well, what does typically mean to you? 14:13:22 14:13:24

A. Typically means that that's typically the way it's done. Typically the sun comes up every morning and typically it sets every night. 14:13:24 14:13:28 14:13:31

I mean, it's typical. 14:13:34

Q. Okay. 14:13:35

A. So it's an expectation, I guess. 14:13:35

Q. So does typically to you mean something has to occur? 14:13:37 14:13:40

A. I would say it -- it's -- it's probably going to occur. Highly likely. 14:13:42 14:13:49

Q. Okay. 14:13:51

A. Can't think of a time when it's not typical. 14:13:52 14:13:56

Q. Okay. So Ponomarenko does disclose that its sublayer can provide some urine flow 14:13:57 14:14:16

management; correct? 14:14:19

A. It can -- yes, it can -- but it needs 14:14:21

to. I mean, it has to provide some urine 14:14:24

management. 14:14:27

Q. Okay. 14:14:28

A. Typically, a child will have more 14:14:32

urinations than BM movements. 14:14:34

Q. Okay. And Nakazawa discloses that it is 14:14:36

also a diaper that can be used with infants; 14:14:41

right? 14:14:44

A. It does reference that it could, yes. 14:14:44

Q. Okay. So then for infants with runny 14:14:47

bowel movements, the sublayer Ponomarenko would be 14:14:52

helpful when used with Nakazawa; correct? 14:14:56

ATTORNEY FLANNERY: Object to the form. 14:15:01

THE WITNESS: Ponomarenko designs a 14:15:02

layer that goes on top of an absorbent article, 14:15:07

not in between as a substitution for distribution 14:15:10

layer. 14:15:14

If you use it as a substitution or 14:15:15

distribution layer underneath the absorbent core, 14:15:19

you lose all the performance elements that 14:15:22

Ponomarenko has identified as critical for BM management. 14:15:26 14:15:29

BY ATTORNEY COHEN: 14:15:31

Q. Well, if the open -- if the sublayer is underneath a hole and so a baby is actually like pooping into the hole, then you would still get the same benefits of the Ponomarenko sublayer; right? 14:15:31 14:15:33 14:15:38 14:15:41 14:15:43

A. As I read this, it's a -- it's a -- it's kind of like a pocket, so the top -- so this top layer for BM management has spacing in between, and you want that to be closest to the body so you can actually move the body fluid underneath that space, that double space, and manage it into the surface which is open and textured to hold the fluid. 14:15:43 14:15:49 14:15:54 14:15:58 14:16:01 14:16:04 14:16:11 14:16:14

If you take that and put it in between another product such as Nakazawa and put absorbent on top of it and crush it down, normal product, it disappears. All these elements disappear. The fluid management disappears. 14:16:14 14:16:16 14:16:21 14:16:25 14:16:28

You're putting extra layers in there. 14:16:30

You're putting an extra embossing areas that cost money and time and equipment that you would never use. 14:16:33 14:16:37 14:16:39

So from my experience, it would be illogical and I don't have a reason to do that. 14:16:40 14:16:44

Q. Okay. You also offer opinions about the Bergstrom reference; correct? 14:16:47 14:17:08

A. Yes. 14:17:09

Q. Okay. I'm handing you First Quality Exhibit 1004. This is the Bergstrom reference; correct? 14:17:10 14:17:13 14:17:24

A. Yes. 14:17:24

Q. Now, this is another patent application coming out of Essity's predecessor SCA Hygiene; correct? 14:17:27 14:17:34 14:17:39

A. I -- I guess that. I never really worked with those folks. 14:17:39 14:17:41

Q. Okay. Do you know -- do you recognize any of the inventors on this reference? 14:17:46 14:17:48

A. I do not. 14:17:50

Q. Okay. 14:17:52

A. All seem to be Swedish names or 14:17:53

something. 14:17:56

Q. I think they're a Swedish company. 14:17:56

Okay. And now, it's your opinion that 14:17:58

the forming element 60 in Bergstrom is not a 14:18:10

perforated polymeric layer as required by the 14:18:18

claims of the '138 patent; correct? 14:18:26

A. I think I said more than that. 14:18:28

Q. I guess one of your opinions is that the 14:18:35

forming element 60 in Bergstrom is not a 14:18:37

perforated polymeric layer as required by the 14:18:41

claims of the '138 patent; correct? 14:18:44

A. My understanding -- and there's a phrase 14:18:56

in here it talks about the forming element is 14:18:58

typically fluid impervious -- and it further goes 14:19:02

on and says that the back sheet is typically fluid 14:19:05

impervious, liquid impervious, so comparing the 14:19:09

back sheet to their No. 60 barrier, I would say it 14:19:13

is typically not fluid -- fluid impervious to 14:19:23

liquid. 14:19:27

Gas, as Bergstrom said, you can have 14:19:27

fluid permeability for gas but not liquid. 14:19:32

Q. Okay. Since you brought it up, let's 14:19:34

take a look at those two passages. 14:19:36

So on Page 9 of Bergstrom, at Line 24, 14:19:38

is the line "As the forming element 60 is 14:19:44

typically liquid impermeable, such an arrangement 14:19:47

makes liquid flow around the edges of the forming 14:19:50

element in width X direction"; right? 14:19:53

A. Yes. 14:19:59

Q. And then if we look at Page 11, around 14:20:00

Line 8, Bergstrom is talking about the back sheet. 14:20:04

And it says, "To protect the wearer's garments 14:20:14

from soiling, it should be liquid impermeable but 14:20:17

is desirably gas permeable." 14:20:21

Correct? 14:20:23

A. Desirably gas permeable. The -- the 14:20:24

back sheet has to be liquid impermeable. 14:20:32

Otherwise, your garments would be wet and you 14:20:35

would wet the floor if it was not liquid 14:20:37

impermeable. 14:20:40

Q. Right. 14:20:40

A. So it's known in the industry, everybody 14:20:40

knows in the industry, every product I've ever 14:20:42

seen or worked on, the back sheet is liquid 14:20:45

impermeable. 14:20:48

Q. Okay. And Bergstrom says, when talking 14:20:48

about the back sheet, "To protect the wearer's 14:20:52

garments from soiling, it should be liquid 14:20:55

impermeable"; right? 14:20:57

A. Yes. It says "should be." 14:20:58

Q. And when talking about the forming 14:21:00

element, it says it's typically liquid 14:21:02

impermeable; correct? 14:21:06

A. Correct. 14:21:07

Q. Okay. And so that is different language 14:21:07

when talking about the forming element and the 14:21:10

back sheet; correct? 14:21:13

A. Different words but they mean the same. 14:21:14

Q. Well, it says, "Typically the forming 14:21:19

element is typically liquid impermeable but the 14:21:21

back sheet should be liquid impermeable." 14:21:24

A. The back sheet is always liquid 14:21:27

impermeable. 14:21:30

Q. Now, one of the materials -- you agree 14:21:30

that Bergstrom does say that forming element at 14:21:35

the top of Page 8 -- or no -- I think it's around 14:21:39

the top of Page 8. Hold on here one second. 14:21:48

On top of Page 10 it's talking about 14:22:08

materials for forming element 60; right? 14:22:11

A. Yes, but I think it's important to look 14:22:15

at the bottom of Page 9 where it says, "Forming 14:22:17

element 60 is suitably made from nonabsorbent 14:22:21

material so that its physical and mechanical 14:22:25

properties are not -- are substantially unaffected 14:22:28

by liquid." 14:22:33

Q. Okay. 14:22:34

A. So it's a barrier. As mentioned above, 14:22:35

it could also -- it also must have required 14:22:38

stiffness properties. So it's stiffer than an 14:22:41

impermeable back sheet, but it's got requirements 14:22:45

of impermeability and stiffness. 14:22:47

It provides me some examples that I 14:22:50

looked at. Forming elements can be plastic films, 14:22:52

perforated films, reinforced tissue, reinforced 14:22:57

nonwovens. 14:23:01

I understand that those materials are 14:23:02

impervious and not absorbent. So they're 14:23:04

impervious to liquid, and -- and not absorbent. 14:23:09

And they have a required stiffness parameter. 14:23:13

Q. You agree that Bergstrom says that one of the materials-forming element can be made out of is a perforated plastic film; correct? 14:23:19 14:23:21 14:23:24

A. To meet the requirements of Bergstrom, it is possible to use certain technologies to make plastic films softer. 14:23:27 14:23:31 14:23:34

You can use needle punching, which is a -- a fine needle that's not going to allow fluid to pass through a -- a porous plastic film. I look at my jacket here. This interlining in the jacket has been needle punched to make it softer. So they put a stiff material in it and they needle punch it to make it softer. 14:23:37 14:23:40 14:23:45 14:23:50 14:23:54 14:23:58 14:24:01

It doesn't mean that fluid can go through it. It doesn't make fluid -- can't be absorbent. So there are mechanical processes that you can do to plastics that make them softer but don't impact absorbency and don't impact fluid migrations through the plastic. 14:24:02 14:24:04 14:24:08 14:24:13 14:24:16 14:24:20

Q. Does Bergstrom say to perform micro -- sorry. Strike that. 14:24:21 14:24:26

Does Bergstrom say to perform needle punching on its forming element? 14:24:26 14:24:30

A. Any experienced person in the industry would know that if there's a plastic film that's too stiff, it needs to be somehow softened to meet the -- the stiffness requirements defined in Bergstrom. 14:24:33 14:24:36 14:24:39 14:24:44 14:24:47

Q. Do you provide any evidence with your opinion on the mechanical perforations point? 14:24:48 14:24:58

A. I -- I just understand what Bergstrom is saying that you can have a plastic film. You can have a perforated plastic film. You can have reinforced tissue. And a reenforced tissue would be not absorbent and required to meet the properties, the stiffness properties. Reinforced nonwovens, again, it can be made to have the required stiffness properties. 14:25:03 14:25:08 14:25:11 14:25:14 14:25:19 14:25:22 14:25:26 14:25:29

All of these are typically impervial -- impervious to fluid. They're not liquid -- they're typically liquid impermeable. And certainly all of them would not be absorbent. So it doesn't meet the requirements. It doesn't -- 14:25:30 14:25:35 14:25:38 14:25:42 14:25:45

meets the requirements of Bergstrom. 14:25:49

So as I said before, the forming element 14:25:50
60 is suitably made of nonabsorbent materials. 14:25:53

So materials are not absorbing anything 14:25:57
and its physical mechanical property is 14:26:00
substantially unaffected by liquid. 14:26:03

Q. Okay. One quick question on this. 14:26:04

For the fluid-flow control structure in 14:26:06
the '138 patent, that can be made of nonabsorbent 14:26:09
materials; correct? 14:26:12

A. Where are you at on '138, please? 14:26:13

Q. I'm looking in the '138 patent, Column 14:26:15
4, Line 7. It says, "The polymer materials of the 14:26:18
fluid-flow control structure may be nonabsorbent 14:26:36
materials which do not retain any fluid in the 14:26:40
material itself." 14:26:42

A. Yes, it says that. 14:26:42

Q. Okay. So the fact that the forming 14:26:43
element 60 in Bergstrom is nonabsorbent does not 14:26:51
affect whether it would be part of a fluid-flow 14:26:57
control structure? 14:27:00

ATTORNEY FLANNERY: Object to the form. 14:27:03

THE WITNESS: Where are you coming from, a fluid-flow control structure? Bergstrom is a barrier material 60. 14:27:03 14:27:06 14:27:10

BY ATTORNEY COHEN: 14:27:14

Q. Okay. For something to be a fluid-flow control structure, as claimed in the '138 patent, the polymer materials don't need to be absorbent; correct? 14:27:14 14:27:18 14:27:21 14:27:24

A. Well, I think there's a whole lot more to the '138 patent than just this one line. 14:27:24 14:27:29

Q. Okay. But I guess my question is more for understanding the scope of the claims in the '138 patent. 14:27:32 14:27:37 14:27:38

Is it your opinion that the polymeric layers that are in the fluid-flow control structure need to be absorbent? 14:27:38 14:27:41 14:27:45

A. I don't recall seeing that in the patent saying that the fluid-flow control structure elements -- every element has to be absorbent. 14:27:45 14:27:48 14:27:50

Q. Okay. Let's go back to Bergstrom. 14:27:53

Okay. And I think if we go to Page 46 of your declaration, you say, "Forming element 60 14:28:04 14:28:34

is invariably described as a barrier to fluid flow"; correct? 14:28:54 14:28:58

A. Where are you at on Page 46? 14:28:58

Q. It's like the last line on the page. 14:29:04

A. Sorry. 14:29:06

Q. Do you see that? 14:29:06

A. Yes. I understand that the forming element of Bergstrom is nonabsorbent and it's a barrier and that the polymeric layers referenced in '138 are designed to allow fluid to pass through. 14:29:20 14:29:22 14:29:25 14:29:30 14:29:32

Q. Okay. Well, I guess I'm focused on here you say, "Forming element is invariably designed or described as a barrier to fluid flow"; correct, and you say "invariably"? 14:29:35 14:29:36 14:29:40 14:29:43

A. Yes, I see that. 14:29:56

Q. What do you mean there by "invariably"? 14:29:57

A. I mean it's a barrier to fluid flow. 14:30:00

Q. What does the word "invariably" mean to you? 14:30:07 14:30:09

A. I would like to see a dictionary to answer your question, but my understanding for me 14:30:09 14:30:17

is that invariably means that -- that this is the way it is. It's the forming element is described as a barrier to fluid flow so it means logically or it means the way it is. 14:30:18 14:30:21 14:30:27 14:30:29

Q. Okay. Like that it has to be a barrier to fluid flow? 14:30:31 14:30:35

A. The forming element is described as a barrier to fluid flow. 14:30:36 14:30:38

Q. Okay. Now, the word "invariably" and the word "typically" are two different words that have different meanings; right? 14:30:40 14:30:43 14:30:46

A. I don't know that -- I -- I don't understand the question. Are you taking one -- are you trying to add stuff up that I don't understand? 14:30:49 14:30:53 14:30:57 14:30:59

Q. Okay. Bergstrom says, "As the forming element 60 is typically liquid impermeable, such an arrangement makes fluid flow around the edges of the forming element," and it goes on, but it says it's typically liquid impermeable. 14:31:00 14:31:02 14:31:06 14:31:09 14:31:12

A. Typically means it's fluid impermeable. 14:31:15

Q. So typically to you means the same thing 14:31:18

as invariably; is that correct? 14:31:21

A. Typically the sun comes up every morning 14:31:23

and typically the sun sets every night. Typical 14:31:26

is typical. I can't think of a nontypical. 14:31:29

Q. Okay. So typical to you means always in 14:31:33

any situation? 14:31:38

A. That's -- 14:31:39

ATTORNEY FLANNERY: Object to the form. 14:31:39

THE WITNESS: I'm saying in reading the 14:31:40

patent and what it's saying is that it's typical. 14:31:43

Is there an outlying case that I'm not 14:31:47

able to think of or be aware of? There could be, 14:31:49

but I think typically means that 99.999 percent 14:31:52

of the time that's the way it works. 14:31:59

BY ATTORNEY COHEN: 14:32:05

Q. Okay. It's improper to you to say, 14:32:05

well, there's an embodiment that's liquid 14:32:07

impermeable, but then Bergstrom also discloses 14:32:10

alternative materials like perforated plastic 14:32:14

films? 14:32:17

A. Which is typically impervious to liquid. 14:32:17

Q. Perforated plastic films? 14:32:21

A. Perforated plastic films, as described in Bergstrom, are typically impervious to fluid and they're not absorbent. They're unaffected by fluid. 14:32:25 14:32:28 14:32:31 14:32:34

Q. Is the Tredegar AQUIDRY layer that we were talking about earlier a perforated plastic film? 14:32:39 14:32:43 14:32:46

A. We would consider that in the industry an apertured plastic film. 14:32:46 14:32:48

Q. But not a perforated polymeric material? 14:32:50

A. You -- some people call it perforated, designed for fluid to pass through, not designed as a barrier. 14:32:53 14:32:59 14:33:01

Q. And Bergstrom does not say that its perforated plastic film must be impervious to fluid; right? 14:33:02 14:33:10 14:33:14

A. Bergstrom defines the requirement for the forming layer as typically impervious and gives us some examples in Bergstrom's universe of materials that are impervious to fluid plus they meet the required stiffness parameters. 14:33:15 14:33:20 14:33:23 14:33:28 14:33:32

The Tredegar material would never meet 14:33:36

the stiffness requirements of Bergstrom. It's two different animals. 14:33:37 14:33:43

Q. Okay. The Tredegar material is nonabsorbent; correct? 14:33:44 14:33:49

A. Correct, it's nonabsorbent. 14:33:49

Q. So in your opinion, because Bergstrom says, "Forming element 60 is typically liquid impermeable," that means that forming element 60 must always be liquid impermeable; is that correct? 14:33:53 14:34:04 14:34:10 14:34:14 14:34:17

A. It's typical. I can't think of a nontypical. 14:34:17 14:34:21

Q. I guess, so is the answer to my question yes? 14:34:22 14:34:27

A. It is what it is. It says it's typically fluid impermeable. 14:34:29 14:34:32

Q. I know. And I guess the -- the issue I'm having is, to me, typically means most of the time, but not always. 14:34:34 14:34:37 14:34:42

I typically take the metro to work. Sometimes, though, I drive. 14:34:44 14:34:48

But the way you appear to be reading 14:34:51

typically in Bergstrom is that Bergstrom says, "Forming element 60 is typically liquid impermeable," and that means that forming element 60 is always liquid impermeable. 14:34:53 14:34:56 14:35:00 14:35:03

A. There -- 14:35:05

Q. And so my question for you is am I correct that the way you are reading the words "forming element 60 is typically liquid impermeable" to mean that forming element 60 is always liquid impermeable? 14:35:06 14:35:09 14:35:14 14:35:17 14:35:20

A. I look for guidance in the next sentence that says, "Forming element 60 is suitably made of a nonabsorbent material so that its physical and mechanical properties are substantially unaffected by liquid." 14:35:22 14:35:25 14:35:30 14:35:36 14:35:38

Adding those together plus the required stiffness teaches me as a person skilled in the art that this is a barrier material. 14:35:41 14:35:44 14:35:49

It's not absorbent material, and it's not designed to allow fluid to pass through. 14:35:51 14:35:54

Q. I guess the question I have there is the '138 patent, when it's talking about the 14:35:56 14:36:01

fluid-flow control structure, says that it's nonabsorbent, it requires a certain stiffness, and it says that its mechanical properties have to be unaffected by liquid. 14:36:04 14:36:07 14:36:12 14:36:14

But there, it's allowing fluid to pass. 14:36:15

So why in Bergstrom is the fact that it's nonabsorbent and has to provide a certain stiffness means that it must not let liquid pass through? 14:36:20 14:36:23 14:36:27 14:36:31

A. Bergstrom says what Bergstrom says. The '138 is a totally different invention. They're two different universes. 14:36:31 14:36:34 14:36:37

I can't add the two universes together and come up with what you're suggesting. 14:36:39 14:36:41

Q. I'm not asking you to add universes together. When you were looking at the prior art and the claims in the '138 patent, what did you do to understand what the scope of the claims in the '138 patent was? 14:36:43 14:36:46 14:36:52 14:36:59 14:37:00

A. I reviewed the file history. 14:37:03

Q. Did you review the specification of the '138 patent, as well? 14:37:08 14:37:10

A. Of course I reviewed the details of the '138 patent. 14:37:11 14:37:12

Q. Okay. And I think the issue I'm having is, in Bergstrom, it's saying that "forming element 60 is typically impermeable." I don't see where it says it has to be liquid impermeable. 14:37:13 14:37:22 14:37:25 14:37:29

Can you point that out to me? 14:37:32

ATTORNEY FLANNERY: Object to the form. 14:37:35

THE WITNESS: It teaches me that, again, as I said, it's nonabsorbent. So a plastic film that is nonabsorbent and it's impermeable and it has required stiffness parameters teaches me that it's a barrier. 14:37:38 14:37:41 14:37:45 14:37:49 14:37:52

I'm not seeing this as fluid -- absorbing fluid. I'm not seeing it as a major pass-through of fluid. It's a barrier. 14:37:55 14:37:58 14:38:01

The intention of Bergstrom is to define a barrier like an umbrella barrier. 14:38:06 14:38:08

BY ATTORNEY COHEN: 14:38:12

Q. Does Bergstrom say "barrier"? 14:38:13

A. I would have to look back, but that's my understanding of the intention of this patent. 14:38:17 14:38:19

If it's typically impervious to fluid, doesn't absorb fluid, doesn't swell up, I would consider that to be a barrier to fluid. 14:38:26 14:38:31 14:38:35

Q. Okay. That if it's typically impervious to fluid, it must always be a barrier to fluid? 14:38:36 14:38:38

A. In addition to the other elements that I looked at in specification Bergstrom, I see it as a barrier. 14:38:41 14:38:44 14:38:51

And as I've said in my notes, Bergstrom does not disclose any fluid flowing through the forming element 60 in the Z direction. There's no fluid coming through it. 14:38:55 14:39:00 14:39:03 14:39:06

Q. Does Bergstrom need to disclose affirmatively that fluid flows through it for you to understand that as a person of skill in the art? 14:39:07 14:39:09 14:39:12 14:39:15

A. I'm sorry. The question is confusing. 14:39:15

Q. Sure. For you to -- strike that. 14:39:19

What would a reference -- what would Bergstrom need to disclose to you to say that forming element 60 allows fluid to flow through the forming element? 14:39:28 14:39:31 14:39:34 14:39:37

ATTORNEY FLANNERY: Object to the form. 14:39:40

THE WITNESS: I didn't see anywhere 14:39:41

that it says that fluid flows through the forming 14:39:42

element because it's typically impervious. So 14:39:44

there's no flow. It's an umbrella. It just 14:39:49

prevents fluid from flowing through. 14:39:54

BY ATTORNEY COHEN: 14:39:57

Q. What are the stiffness requirements 14:39:57

imposed by Bergstrom? 14:39:59

A. On Page 15, it does give some 14:40:01

descriptions about how to test for the edge 14:40:28

strength of the Bergstrom product. It shows me in 14:40:35

Figure 10 the plots and the convert -- 14:40:44

conversions, and somehow 14 -- it's in newtons. 14:40:50

Are you familiar with newtons as a force 14:41:04

gauge? 14:41:06

Q. Vaguely. I remember studying it. 14:41:07

A. So to measure stiffness, I think on Page 14:41:16

1315 -- it's a lateral compression of 25 newtons, 14:41:18

and I believe they're looking for something in the 14:41:28

10 to 15 newton range. 14:41:30

I haven't looked at this in a long time, 14:41:32

so I'm going to need to read this. 14:41:33

Q. All right. Well, you can set that 14:41:35

aside. I don't need your -- to ask you questions 14:41:36

about that. 14:41:38

Let's go back to your declaration. On 14:41:39

Page 47 of Exhibit 2001, Paragraph 114 -- 14:41:45

ATTORNEY FLANNERY: Counsel, I'm sorry 14:41:51

to say this. Are you switching gears? Because 14:41:52

if so, maybe it's a good time for a break. But 14:41:54

if you're on the same -- I just can't tell. 14:41:56

ATTORNEY COHEN: I think maybe a little 14:41:58

bit longer -- 14:42:00

ATTORNEY FLANNERY: Okay. Yeah. I 14:42:01

just need to use the restroom. 14:42:02

ATTORNEY COHEN: -- and then we can 14:42:04

take a little break. Okay. I promise I won't be 14:42:06

long. 14:42:06

ATTORNEY FLANNERY: Okay. I don't want 14:42:06

to break up your flow. I didn't know if you were 14:42:08

switching. 14:42:12

ATTORNEY COHEN: Not quite. 14:42:12

BY ATTORNEY COHEN: 14:42:14

Q. Okay. So here -- because we're still in the Bergstrom opinions that you're offering; correct? 14:42:14 14:42:15 14:42:17

A. It appears to be that way. 14:42:17

Q. Okay. You say, "The perforated polymeric layer claimed in the '138 patent are described as three dimensionally-formed layers"; is that correct? 14:42:18 14:42:20 14:42:24 14:42:27

A. That's what I said. 14:42:29

Q. Is it your opinion that the claimed perforated polymeric layer in the '138 patent must be three dimensionally-formed? 14:42:30 14:42:32 14:42:36

ATTORNEY FLANNERY: Object to the form. 14:42:42

THE WITNESS: I'm just saying it's described as -- as three dimensional. 14:42:42 14:42:46

BY ATTORNEY COHEN: 14:42:49

Q. Is it your opinion that Bergstrom does not have a perforated polymeric layer because it doesn't disclose three-dimensionally formed penetrating apertures? 14:42:50 14:42:52 14:42:58 14:43:03

A. No. 14:43:04

Q. Okay. In Paragraph 115 on Page 48 of 14:43:04

Exhibit 2001, you have that sentence I think we were talking about earlier "A POSA would understand that mechanical perforation to affect softness for physical properties is different from perforation to promote fluid flow." 14:43:13 14:43:15 14:43:18 14:43:21 14:43:23

Do you see that? 14:43:26

A. Yes. 14:43:26

Q. And you don't provide any document that defines or shows mechanical perforation; correct? 14:43:27 14:43:32

A. It's known in the industry. There's many ways to do mechanical perforation. 14:43:34 14:43:38

Q. Okay. But you don't provide any industry documents showing mechanical perforation? 14:43:41 14:43:44

A. At this point, I did not. 14:43:46

Q. Okay. And Bergstrom does not use the term "mechanical perforation"; correct? 14:43:47 14:43:50

A. No. They use the term "perforated film." 14:43:52 14:43:56

Q. Perforated plastic film; correct? 14:43:56

A. Perforated plastic film. 14:44:00

ATTORNEY COHEN: Okay. Let's take a break. 14:44:03 14:44:04

THE VIDEOGRAPHER: Okay. We're going off the record. The time is 2:44. 14:44:04 14:44:05

(A recess was taken.) 14:44:14

THE VIDEOGRAPHER: We are back on the record. The time is 3:00. 15:00:12 15:00:22

BY ATTORNEY COHEN: 15:00:30

Q. Now, Mr. Sheldon, previously, I had you take Exhibit A and then a copy of Exhibit A, fold it, align the two figures, the one from the '138 patent and the Nakazawa patent, stick them together with a Post-It note. 15:00:31 15:00:34 15:00:38 15:00:41 15:00:44

A. Yes. 15:00:45

Q. On the break we made a copy of that as Exhibit B. Here is copy for your counsel. 15:00:46 15:00:50

A. Okay. 15:00:52

Q. Can you take a look and compare the folded Post-Ited version with Exhibit B and let me know if you see any differences between the copy and the version that you -- you made. 15:00:53 15:00:56 15:01:00 15:01:03

A. It's -- it's approximate. It's fine. 15:01:05

Q. Okay. But this Exhibit B is an accurate copy of the configuration that you made for -- 15:01:08 15:01:11

A. Do you want it or do I keep it? 15:01:13
Q. We're going to give it to the court 15:01:15
reporter. 15:01:17
A. Okay. 15:01:17
Q. Okay. Cool. Thank you. 15:01:17
All right. 15:01:19
ATTORNEY FLANNERY: But it has Exhibit 15:01:21
A on it; right? I don't know. I'm just -- 15:01:24
ATTORNEY COHEN: Oh, we marked a copy 15:01:25
with Exhibit B and then we're planning to kind of 15:01:26
remove the taping -- 15:01:29
ATTORNEY FLANNERY: That's fine. 15:01:30
ATTORNEY COHEN: -- and just have 15:01:31
Exhibit A. 15:01:33
ATTORNEY FLANNERY: Okay. 15:01:33
ATTORNEY COHEN: Okay. 15:01:34
BY ATTORNEY COHEN: 15:01:37
Q. Okay. So, Mr. Sheldon, we've been 15:01:37
talking about Bergstrom and the forming element in 15:01:39
Bergstrom. And previously, we were talking about 15:01:45
the -- the opinion that you offer that Bergstrom 15:01:50
equates the forming element 60 with the back 15:01:56

sheet; correct? 15:02:00

A. I referenced that they are both expected 15:02:01

to be liquid impermeable. 15:02:07

Q. Okay. If you go to Page 11 of 15:02:10

Bergstrom -- 15:02:13

A. Too many papers. Okay. Page 11. 15:02:36

Q. And do you see the paragraph starting at 15:02:43

Line 8? 15:02:45

A. "The back sheet of the article is the 15:02:49

layer which is furthest from the wearer's body 15:02:51

when the article is in use." 15:02:54

Q. Right. And in that paragraph that 15:02:55

starts at Line 8, do you see there are a list of 15:02:57

materials for back sheet? 15:03:04

A. "To protect the wearer's garments from 15:03:05

soiling, it should be liquid impermeable. It is 15:03:08

desirably gas permeable to allow air and vapor to 15:03:11

pass through and out of the article so that the 15:03:16

warm, damp conditions which arise in a diaper are 15:03:19

reduced. 15:03:22

"Typical of a back sheet is a liquid 15:03:22

impervious material such as a thin plastic film, 15:03:26

polyethylene or polypropylene film and nonwoven, coat it with liquid impervious materials, hydrophobic nonwoven material which results in liquid penetration or laminating plastic films and nonwovens." 15:03:31 15:03:31 15:03:36 15:03:40 15:03:40

So they give you a lot of examples of materials. 15:03:41 15:03:44

Q. Okay. Does anywhere in this paragraph Bergstrom say back sheet 102 can be a perforated plastic film? 15:03:45 15:03:50 15:03:53

A. Well, it says, "Examples of breathable back sheet materials are porous polymeric films, nonwoven laminates from spunbond and meltblown layers -- it's called SMS -- and laminates from porous polymeric films and nonwoven materials." 15:03:56 15:04:06 15:04:09 15:04:14 15:04:19

So what are you asking? 15:04:22

Q. My question is pretty simple. Does Bergstrom list perforated plastic film as being a material that can be used to make back sheet 102? 15:04:25 15:04:28 15:04:37

A. No. 15:04:41

Q. Okay. Are you aware of materials that are stiff but also perforated? 15:04:41 15:04:50

ATTORNEY FLANNERY: Object to the form. 15:04:58

THE WITNESS: This is a hypothetical. 15:04:58

Could you give me some structure here? What are 15:05:02

you thinking? 15:05:05

BY ATTORNEY COHEN: 15:05:06

Q. Are you aware of materials that are used 15:05:06

in absorbent articles that are -- have the 15:05:07

stiffness that's required of the forming element 15:05:11

60 in Bergstrom but are also perforated? 15:05:13

ATTORNEY FLANNERY: Object to the form. 15:05:17

THE WITNESS: It would be simple to 15:05:18

make a thicker plastic film with micropores to 15:05:22

fit Bergstrom's requirements and not allow fluid 15:05:31

the pass through. 15:05:35

BY ATTORNEY COHEN: 15:05:36

Q. Okay. But they would have to be 15:05:36

microporous to not allow fluid to pass through? 15:05:41

A. Well, I would call it microporous. It's 15:05:45

gas permeable. But if you make giant pores, I 15:05:51

mean, the fluid will flow through the giant holes, 15:05:58

so I don't see giant holes here. 15:06:02

Q. Okay. I guess that may have been my 15:06:04

question is for Bergstrom, in your opinion, the perforated plastic film in Bergstrom is a microporous gas-permeable plastic film? 15:06:06 15:06:10 15:06:15

A. Based upon what Bergstrom discusses for this particular material, it also teaches me about what they're doing in the back sheet. 15:06:18 15:06:24 15:06:27

I would say that it's -- it's possible to be gas permeable, but I think it's more -- less gas permeable and more tenderized for flexibility. 15:06:28 15:06:30 15:06:37

Q. Okay. 15:06:42

A. If you think of corduroy is a tenderization of a thicker material. So you could do the same thing to plastic and make it much more flexible and softer without making any holes through it. 15:06:49 15:06:53 15:06:56 15:07:00 15:07:06

Q. Does Bergstrom disclose any processing like that to perform on the forming element 60? 15:07:06 15:07:08

A. Bergstrom does not disclose that, but anybody who worked in the industry would know there are ways to make the stiffness requirements of Bergstrom and continue to keep it impermeable. 15:07:14 15:07:18 15:07:20 15:07:23

Q. Okay. You don't provide any of that 15:07:26

evidence of what people would know in the industry in your declaration; correct? 15:07:28 15:07:30

A. I don't recall whether I provided that or not, but it's pretty common knowledge. 15:07:32 15:07:35

Q. Okay. Now, the forming element 60 in Bergstrom is an optional component in its absorbent article; right? 15:07:37 15:07:45 15:07:51

A. I believe that's what they reference. It's optional. 15:07:53 15:07:55

Q. If you go to Page 10, Line 6, it says, "All layers, upper core 20, acquisition layer 40, lower core 30, and optional forming element 60 are suitably in contact." 15:07:56 15:08:08 15:08:12 15:08:18

Do you see that? 15:08:20

A. Yes, substantially -- contact over, substantially, the entire area. 15:08:24 15:08:26

Q. Okay. And so -- so that forming element 60 may not even be in the absorbent article in Bergstrom; right? 15:08:28 15:08:33 15:08:37

A. I'm not following your question. 15:08:38

Q. I guess the forming element 60 is not required in Bergstrom; correct? 15:08:42 15:08:44

ATTORNEY FLANNERY: Object to the form. 15:08:46

THE WITNESS: In -- in -- on Line -- on 15:08:47

Page 10, Line 6, it does not say you can't -- 15:09:00

that you can negate a forming element. 15:09:06

Which line are you looking at? 15:09:09

BY ATTORNEY COHEN: 15:09:10

Q. Sorry. It -- at Line 6, it says 15:09:11

"optional forming element 60." 15:09:14

Do you understand that to mean that 15:09:17

element -- forming element 60 does not need to be 15:09:20

included? 15:09:23

A. It's optional. Okay? 15:09:23

Q. So -- sorry. Is that a yes, it does not 15:09:27

need to be included in Bergstrom? 15:09:29

A. What I'm saying is it says optional, so 15:09:32

it says optional. 15:09:34

Q. Do you have an understanding of what 15:09:35

that means? 15:09:37

A. Yes. 15:09:37

Q. What is that? 15:09:38

A. It means it could be there or not be 15:09:39

there. 15:09:41

Q. Okay. You agree that Bergstrom has two absorbent layers; correct? 15:09:41 15:09:47

A. Well, I'm not sure that it has all -- two absorbent layers in every configuration. What about Figure 2? 15:09:48 15:10:21 15:10:25

Q. I think in Figure 2 it does also. It just isn't showing an absorbent article. 15:10:34 15:10:37

A. Well, if I look at the paragraph starting on Line 33 on Page 6 and going onto Page 7, it says "The upper absorbent core compresses an opening. As shown in Figures 1 through 8, the opening 21 extends to the entire thickness of the upper absorbent core 20 from one face to the other and the opening 21 may be introduced as part of the manufacturing process of the upper core 20 stamped or pressed out in the upper core or formed in a mold as part of an air-laying process. 15:10:38 15:11:15 15:11:21 15:11:25 15:11:29 15:11:31 15:11:35 15:11:38 15:11:42 15:11:45

"The opening 21 is located in the region 50, the opening 21 in the upper absorbent core, and at least overlies the acquisition layer and the lower absorbent core 30." 15:11:50 15:11:52 15:11:57 15:11:59

So my understanding is that this has two 15:12:01

absorbent layers. 15:12:09

Q. Okay. Now, if we turn back to your 15:12:10

declaration, the first one, Exhibit 2001, you 15:12:19

offer an opinion that -- 15:12:36

A. Where -- may I interrupt and ask where 15:12:39

are you reading? 15:12:42

Q. Yeah. Paragraph 120, Page 49 -- 15:12:42

A. Okay. 15:12:44

Q. -- of Exhibit 2001. Do you have that? 15:12:45

A. Yes. 15:12:47

Q. Okay. The last sentence in Paragraph 15:12:47

120 is "In my opinion, acquisition layer 40 and 15:12:53

forming element 60 do not together form a 15:12:55

fluid-flow control structure as claimed in the 15:12:59

'138 patent." 15:13:02

Do you see that? 15:13:02

A. Yes. 15:13:03

Q. Now, you offered the opinion that these 15:13:04

two layers do not form a fluid-flow control 15:13:09

structure for several reasons; correct? 15:13:13

A. Yes. 15:13:16

Q. One reason is that they do not form a 15:13:16

cohesive arrangement of elements to accomplish a particular function and, from that, I'm getting from Paragraph 121; is that correct? 15:13:30 15:13:33 15:13:36

A. Yes. 15:13:38

Q. What do you mean by "a cohesive arrangement of elements"? 15:13:39 15:13:43

A. In the reference to Bergstrom, and I'll give you an example, the -- the forming element is like an umbrella and you put an acquisition layer on top of your umbrella. It -- it may slow down the fluid running off your umbrella but it's just not managing fluid. 15:13:44 15:13:51 15:13:57 15:14:00 15:14:05 15:14:08

It's going to come whichever way. And these products are worn by people and people have a tendency to wear them a little bit crooked, a little bit this, a little bit that. I can't see it functioning as a cohesive fluid-management system. 15:14:10 15:14:16 15:14:18 15:14:22 15:14:23

I just see an acquisition layer and a barrier underneath it. 15:14:27 15:14:29

Q. Okay. What -- you just said, "I don't see it functioning as a cohesive fluid-management 15:14:30 15:14:35

system." 15:14:38

A. Mm-hmm. 15:14:38

Q. What is a cohesive fluid-management 15:14:39

system? 15:14:42

A. For example, the '138 patent discusses 15:14:42

-- sorry. A cohesive management system, it starts 15:14:57

off with an absorbent article including the 15:15:04

fluid-permeable top sheet, a fluid-impermeable 15:15:08

back sheet, an absorbent core enclosed between the 15:15:09

top and the back sheet.

The absorbent core includes a first 15:15:12

absorbent layer having an opening extending 15:15:14

therein. The fluid-flow control structure is 15:15:17

arranged between the first absorbent layer and the 15:15:20

back sheet, and the fluid-flow control structure 15:15:23

is a layered structure including a nonperforated 15:15:26

fibrous polymeric layer and a first perforated 15:15:32

polymeric layer having the basis weight of between 15:15:37

50 and 100 GSM. 15:15:41

It's functioning to manage the fluid 15:15:43

through the product. 15:15:45

Q. Okay. So my question was what's a fluid 15:15:50

cohesive management system? 15:15:52

A. I was reading from the '138 is -- is an 15:15:54

example of a management system of moving fluids 15:15:58

through a product. 15:16:02

Q. What makes something a cohesive 15:16:02

fluid-management system? 15:16:05

A. It works in concert. It's multi- -- 15:16:06

well, it's -- it's a fluid-flow control system. 15:16:10

It works together as a system, not one being an 15:16:14

acquisition layer on top of a barrier, so I don't 15:16:19

-- I don't understand why you would even have an 15:16:22

acquisition layer there if you're putting it on 15:16:25

top of a barrier. 15:16:27

Q. Do the layers in a fluid-flow control 15:16:27

structure need to be designed to be the same size 15:16:36

to be a cohesive fluid-management system? 15:16:39

A. Well, ideally they're the same size, but 15:16:42

if the size is a little bit different, then it 15:16:50

depends upon covering the absorbent area. 15:16:53

I would want it to cover the entire 15:16:55

absorbent area that's required to manage the 15:16:57

fluid. 15:17:02

Q. Does it need to be smaller than the lower absorbent core? 15:17:03 15:17:05

A. Does what need to be smaller? 15:17:06

Q. The fluid-flow control structure. 15:17:12

A. Does it need to be smaller than the entire length of the lower core? Is that what you're asking? 15:17:15 15:17:20 15:17:22

Q. I think I was more asking about the width. Let me -- let me re-ask it. 15:17:22 15:17:25

Does a fluid-flow control structure need to have a smaller width than the upper and the lower absorbent cores? 15:17:27 15:17:31 15:17:35

A. Most likely it should to prevent or minimize the fluid going off the edges. 15:17:37 15:17:44

Q. Okay. If the fluid-flow control structure was wider than the upper or lower absorbent cores, you might have a side leakage problem; is that correct? 15:17:47 15:17:50 15:17:54 15:17:57

A. I would believe you would have a side leakage problem. 15:17:57 15:17:59

Q. Okay. For two layers to be a fluid-flow control structure, as claimed in the '138 patent, 15:18:00 15:18:09

do they have to be designed to be used together to provide fluid-flow control? 15:18:12 15:18:16

A. The two layers of what? What are you -- what two layers are you asking? 15:18:19 15:18:23

Q. My question is about the fluid-flow control structure as claimed in the '138 patent. 15:18:25 15:18:29

Do you have that in mind? 15:18:30

A. Yes. 15:18:32

Q. Okay. And we're figuring out what is a fluid-flow control structure and what is not. Okay? 15:18:32 15:18:35 15:18:38

You've offered opinions that certain elements in the prior art are not fluid-flow control structures; correct? 15:18:39 15:18:41 15:18:44

A. Correct. 15:18:44

Q. Okay. And I'm trying to figure out what is and what is not a fluid-flow control structure. Okay? 15:18:44 15:18:46 15:18:49

A. Okay. 15:18:49

Q. So my question was for two layers to be a fluid-flow control structure, do they have to be designed to be used together to provide fluid-flow 15:18:50 15:18:56 15:19:00

control? 15:19:05

A. They -- 15:19:05

ATTORNEY FLANNERY: Object to the form. 15:19:06

THE WITNESS: The fluid-flow control in the '138 patent is a number of elements. It's just not two elements. It's a number of elements. 15:19:06 15:19:11 15:19:14 15:19:17

BY ATTORNEY COHEN: 15:19:17

Q. Well, in the claims that -- in Claim 1 of the '138 patent, all that's required are two layers for the fluid-flow control structure; right? 15:19:18 15:19:22 15:19:26 15:19:29

A. Well, it's more than just two layers. It's -- it's -- it's where in the fluid flow structures are arranged between the first absorbent layer and back sheet and said fluid-flow control structure being a layered structure comprising a nonperforated fibrous polymeric layer and a first perforated polymeric layer, and in the design there is a void space, so this fluid-flow control structure enhances the way the fluid is managed through the product. 15:19:36 15:19:52 15:19:58 15:20:00 15:20:03 15:20:05 15:20:10 15:20:15 15:20:21 15:20:26

Q. Okay. But I understand that the claims require that the fluid-flow control structure be placed in a certain location. 15:20:27 15:20:30 15:20:32

A. Mm-hmm. 15:20:33

Q. They require that there are two absorbent cores. The upper core has to have an opening; right? 15:20:34 15:20:37 15:20:39

A. Yes. 15:20:40

Q. My question is about the fluid-flow control structure. 15:20:40 15:20:43

What the claim says is that it's a layered structure comprising a nonperforated fibrous polymeric layer and a first perforated polymeric layer; correct? 15:20:45 15:20:47 15:20:51 15:20:55

A. That's what the claim says of this Claim 1. 15:20:56 15:20:58

Q. Okay. And you would agree with me the acquisition layer 40 and forming element 60 of Bergstrom are positioned between two absorbent cores; correct? 15:20:59 15:21:03 15:21:05 15:21:09

A. You have one acquisition layer on top of a barrier positioned between two layers of 15:21:09 15:21:18

absorbent. 15:21:23

Q. Right. 15:21:24

A. So it's not controlling anything. It's not managing anything. 15:21:25 15:21:28

Q. Okay. We'll get to that. 15:21:29

My question is more the layers 40 and 60 in Bergstrom are positioned in between two absorbent cores where the upper core has an opening; correct? 15:21:31 15:21:36 15:21:40 15:21:42

A. So the material is positioned between the upper and lower core, and it shows in Figure 4 an opening in the upper absorbent. 15:21:44 15:22:22 15:22:27

Q. Okay. So the two layers are in the correct position as required by Claim 1 of the '138 patent; correct? 15:22:29 15:22:34 15:22:37

A. I would not see this as an effective way to position a material that's -- that's got a barrier in it. 15:22:39 15:22:43 15:22:48

Q. I understand that. But I'm -- I'm more trying to figure out why exactly these two layers are not a fluid-flow control structure. 15:22:48 15:22:51 15:22:53

It's not because they're not in the 15:22:56

right arrangement in the absorbent article in Bergstrom; right? 15:22:58 15:23:01

A. It's the -- 15:23:03

ATTORNEY FLANNERY: Object to the form. 15:23:04

THE WITNESS: They're -- they're not composed of the right functional materials -- 15:23:04 15:23:08

BY ATTORNEY COHEN: 15:23:10

Q. Okay. 15:23:10

A. -- to control fluid. 15:23:10

Q. Okay. What are the right functional materials for a fluid-flow control structure? 15:23:12 15:23:17

A. The fluid-flow control structure is defined in the '138 application. 15:23:20 15:23:25

Q. Okay. You said they are not composed of the right functional materials. So my question for you is what are the right functional materials for a fluid-flow control structure as claimed in the '138 patent? 15:23:29 15:23:32 15:23:35 15:23:38 15:23:43

A. I would reread the claim. 15:23:44

Q. Okay. 15:23:46

A. That's what I would claim. 15:23:46

Q. So the claim says, "A nonperforated 15:23:47

fibrous polymeric layer and a first perforated polymeric layer." 15:23:50 15:23:55

A. Yes. 15:23:55

Q. I think you just went -- sorry. You went past the '138 patent. There it is. 15:23:56 15:24:01

A. Again, yeah, there's too many here. Thank you. 15:24:02

That defines a fluid control -- fluid-flow control structure which, to my knowledge, is the first time that terminology has been used, so I think it's an accurate description in this patent of how to manage and control the fluid in an absorbent product. 15:24:14 15:24:18 15:24:20 15:24:22 15:24:25 15:24:28

Q. Were you looking for that terminology in the prior art in order to see if this element had been disclosed previously? 15:24:31 15:24:33 15:24:37

A. I did not. 15:24:38

Q. Okay. So you said previously that the materials in Bergstrom are not the right functional materials to be a fluid-flow control structure. 15:24:41 15:24:49 15:24:51 15:24:54

All the '138 patent claim says is that a 15:24:54

fluid-flow control structure is a layered structure with a nonperforated fibrous polymeric layer and a first perforated polymeric layer. 15:25:01 15:25:03 15:25:07

So what are -- 15:25:10

A. Which allows for fluid flow through the structure. 15:25:13 15:25:15

Q. Okay. 15:25:15

A. Bergstrom does not allow for fluid flow through the structure. 15:25:16 15:25:20

Q. Would it be enough for the forming element 60 to have pores that allowed fluid to flow through that layer? 15:25:21 15:25:30 15:25:33

A. I don't think so. I have not considered that. 15:25:37 15:25:43

Q. Okay. Why do you think no? 15:25:43

A. I haven't really considered it. The first thing that came to my mind was just a piece of plastic with holes in it, and I don't see that managing anything, just being holes. 15:25:45 15:25:54 15:25:56 15:26:00

Q. Okay. 15:26:02

A. So I really haven't thought about it. 15:26:02

Q. Would the Tredegar AQUIDRY layer be part 15:26:04

of a fluid-flow control structure? 15:26:12

A. The Tredegar AQUIDRY material is part of a fluid-flow control structure, as defined in the '138 patent. 15:26:14 15:26:19 15:26:24

Q. Where does the '138 patent say a Tredegar film? 15:26:25 15:26:28

A. A first perforated polymeric layer is pretty standard and known in the industry as a Tredegar material. 15:26:28 15:26:43 15:26:45

Q. Okay. 15:26:49

A. It's a thin film. It's used in many applications. 15:26:49 15:26:52

Q. The -- well, the '138 patent requires that perforated polymeric layer to have a certain stiffness, right, and basis weight? 15:26:55 15:26:56 15:27:00

A. Yes. 15:27:02

Q. And those are actually higher than the Tredegar film; isn't that correct? 15:27:02 15:27:08

A. I don't -- I don't understand your question again. 15:27:10 15:27:15

Q. Well, I'm not understanding what you are saying. 15:27:15 15:27:22

A. The -- the Tredegar film by itself has particular properties. 15:27:24 15:27:28

Q. Mm-hmm. 15:27:28

A. Tensile properties, thickness properties. And when combined with another structure, you have to look at the entire structural properties. 15:27:29 15:27:32 15:27:34 15:27:36

Q. Okay. 15:27:38

A. So they can be different. 15:27:41

Q. Okay. So the properties of a fluid-flow control structure -- the layers in a fluid-flow control structure can be different? 15:27:43 15:27:46 15:27:49

A. No. I'm saying the stiffness can be different depending upon how you construct it and bond it. 15:27:54 15:27:57 15:27:59

Q. Okay. In Claim 2 of the '138 patent, it says, "The first perforated polymeric layer has a basis weight of 60 GSM to 100 GSM"; correct? 15:27:59 15:28:04 15:28:07

A. Yes. 15:28:13

Q. Is that a Tredegar AQUIDRY film? 15:28:13

A. It's -- it's -- I'm sure it's one of the variations. I don't recall it being that thick, 15:28:15 15:28:18

but it's -- I'm sure they make it. 15:28:22

Q. Okay. But in your recollection, the 15:28:24

AQUIDRY film is not -- does not have that basis 15:28:28

weight? 15:28:32

A. No. I said in my recollection, when I 15:28:33

was using it as a top sheet, it probably had 40 15:28:35

GSM basis weight. This is a little bit higher, 15:28:39

but there may be specific requirements that -- 15:28:41

that the '138 needs for a higher basis weight. 15:28:46

Q. Okay. I want to go back to your opinion 15:28:49

in your declaration where you say, "The ordinary 15:29:00

and customary meaning of a structure as a POSA 15:29:07

would have understood it, in view of the 15:29:10

disclosures in the '138 patent, which is a 15:29:12

cohesive arrangement of elements to accomplish a 15:29:14

particular function." 15:29:17

Okay? 15:29:17

A. Okay. What -- what line is that? 15:29:18

Q. That's on Page 49, in Paragraph 121 of 15:29:21

your declaration. 15:29:27

A. Okay. 15:29:28

Q. Now, we've been talking about cohesive 15:29:28

arrangement, and I want to talk about accomplishing a particular function. 15:29:36 15:29:38

Now, it's not enough in your opinion for two layers to be put in between two absorbent cores to constitute a fluid-flow control structure as claimed; correct? 15:29:39 15:30:00 15:30:04 15:30:08

A. My first thought is no, but I would need to know more about the material properties and how they work and the shape of the absorbent cores and how the fluid is being managed. 15:30:09 15:30:14 15:30:17 15:30:20

Q. What would you need to know about the material properties of the layers between the two absorbent cores? 15:30:22 15:30:23 15:30:27

A. I would need to know the -- the rate that fluid can pass through. I would need to know if they absorb fluid. I would need to know if they have repellency or a barrier. I would need to know more. 15:30:27 15:30:32 15:30:35 15:30:38 15:30:41

Q. Now, in Paragraph 124 of your declaration -- we're still talking about Bergstrom -- you say, "Within the absorbent article described in Bergstrom, acquisition layer 40 has a 15:30:42 15:31:33 15:31:39 15:31:41

different and opposite role from forming element 60." 15:31:44 15:31:47

Do you see that? 15:31:48

A. Yes. 15:31:48

Q. And then you say, "Other than being components of an absorbent article, acquisition layer 40 and forming element 60 are never discussed together as a structure to accomplish any particular function and Dr. Pourdeyhimi does not opine that it does." 15:31:49 15:31:53 15:31:55 15:31:59 15:32:01 15:32:03

Do you see that? 15:32:05

A. Yes. That's what I wrote at the time. 15:32:06

Q. Okay. For acquisition layer 40 and forming element 60 to constitute a structure, they would need to work together to accomplish a particular function; is that correct? 15:32:08 15:32:14 15:32:18 15:32:23

ATTORNEY FLANNERY: Object to the form. 15:32:24

THE WITNESS: That's my opinion. But are we getting into hypothetical things now where you want me to put different stuff together? 15:32:24 15:32:28 15:32:30

BY ATTORNEY COHEN: 15:32:34

Q. No. I'm trying to figure out the -- I'm 15:32:34

trying to understand your opinion and what constitutes a fluid-flow control structure and what does not, because I don't quite see the difference. And so I'm just trying to understand what boundaries are of your opinion and when is something a fluid-flow control structure and when is something not. 15:32:36 15:32:39 15:32:41 15:32:44 15:32:46 15:32:52 15:32:55

So, for example, earlier today you said that the fluid acquisition system in Glaug to you is not a fluid-flow control structure; right? 15:32:57 15:33:01 15:33:07

A. Not like it's described in the '138 patent. 15:33:09 15:33:12

Q. Okay. Now, the fluid acquisition system in Glaug is two layers of two different materials; correct? 15:33:12 15:33:15 15:33:20

A. Yes. 15:33:20

Q. And they're glued together; correct? 15:33:22

A. That's what I recall. 15:33:25

Q. They perform different functions but both provided to Glaug to provide fluid management; correct? 15:33:27 15:33:30 15:33:33

A. They provide one-way fluid management. 15:33:33

Q. Okay. Why are they not a fluid-flow control structure, in your opinion? 15:33:36 15:33:40

A. It's not a structure. It's two -- it's a layer of material that provides fluid management into the absorbent core and minimizes absorbent wet back to the body. 15:33:41 15:33:47 15:33:51 15:33:56

Q. Okay. You would agree they start as two separate materials, though; correct? 15:33:57 15:34:01

A. Yes. 15:34:03

Q. And then they are glued together; correct? 15:34:04 15:34:07

A. Yes. 15:34:08

Q. And were they then sized together? 15:34:08

A. What do you mean by "sized together"? 15:34:14

Q. Like you would glue them being unwound together and then kind of chop them at the same points? 15:34:16 15:34:21 15:34:23

A. They would be glued together by Tredegar, perhaps. I'm not sure the details. And they would be fed into a diaper machine. And the diaper machine's got a lot of unwinds. It's got fiberization things for the pulp to come in, the 15:34:25 15:34:30 15:34:34 15:34:38 15:34:42

superabsorbent, all of that. 15:34:45

It would go down the line and it would 15:34:47

be cut to fit in a particular spot in the diaper. 15:34:49

We cut it because it costs a lot more money to run 15:34:52

it full length. 15:34:55

Q. Okay. Now, when you say that's not a 15:34:56

structure, what do you mean? 15:35:03

ATTORNEY FLANNERY: Object to the form. 15:35:06

THE WITNESS: It's a layer. 15:35:09

BY ATTORNEY COHEN: 15:35:10

Q. Well, originally it was two separate 15:35:10

materials that are joined together; correct? 15:35:13

A. To make a new layer. It's a layer. 15:35:14

Q. Okay. Well, the materials in the '138 15:35:17

patent's fluid-flow control structure are two 15:35:21

separate materials joined together; correct? 15:35:25

A. In a structure in between absorbents 15:35:27

with a space in between to allow for management of 15:35:31

fluid. So the hole elements all come together to 15:35:36

create a fluid-flow control structure as defined 15:35:40

in '138. 15:35:43

Q. In your opinion, does a fluid-flow 15:35:44

control structure not exist if you don't have two absorbent cores where the top core has an opening? 15:35:47 15:35:49

A. In my opinion, the '138 patent describes a fluid-flow control structure. I don't see that descriptor going to Bergstrom or Glaug. 15:35:52 15:35:56 15:36:00

Q. Why not for Glaug? 15:36:03

A. It's a layer of material. It's not a structure. 15:36:06 15:36:09

Q. What is the difference? 15:36:13

A. If I -- if I buy some tiles and put it on the roof of my house, it's a piece of tile that protects my house, but the house is the structure, not -- not a layer on the roof. 15:36:14 15:36:20 15:36:22 15:36:25

It's -- a layer, to me, is not a structure. I can't think of anyone I know in the industry that would call a layer a structure. 15:36:29 15:36:31 15:36:35

Q. But Glaug, as we discussed, the fluid acquisition system is actually two different layers that are joined together? 15:36:39 15:36:43 15:36:45

A. To make what he calls a fluid acquisition system to acquire fluid. 15:36:47 15:36:50

Q. Mm-hmm. As opposed to a fluid-flow 15:36:52

control structure? 15:36:56

A. Yes. That's different. 15:36:56

Q. What's the difference? 15:36:58

A. A fluid-flow control structure, as in the '138, has a number of other elements, a number of other pieces and a number of other constructions to make a whole product. 15:36:59 15:37:06 15:37:09 15:37:10

Glaug's reference is for an acquisition layer, a layer in a product. 15:37:12 15:37:15

Q. What are the other elements and other pieces in the '138 patent for the fluid-flow control structure? 15:37:18 15:37:21 15:37:25

A. Well, as it says in the -- in the patent, it describes a fluid-permeable top sheet, a fluid-impermeable back sheet, absorbent core encased between the top sheet and said back sheet, absorbent core comprising of a first-flow, first absorbent layer having an opening, so the opening is part of the structure -- 15:37:26 15:37:29 15:37:40 15:37:45 15:37:48 15:37:52 15:37:54

Q. Sorry. Is the opening part of the fluid-flow control structure, in your opinion? 15:37:56 15:37:58

A. It's part of the claim for this patent 15:38:00

that's referencing a fluid-flow control structure, all the elements. 15:38:04 15:38:06

I don't think you can just take one piece out and call that a fluid-flow control structure. I disagree with that. 15:38:08 15:38:10 15:38:12

Q. Okay. You under -- do you understand how to read a patent claim? 15:38:13 15:38:18

A. I understand that you just read it. 15:38:20

Q. Okay. And so this is to an absorbent article that has a number of separate components; correct? 15:38:22 15:38:27 15:38:29

A. Yes. 15:38:29

Q. One of those components is a top sheet, and then it says, "A fluid-impermeable back sheet"; correct? 15:38:29 15:38:33 15:38:36

A. Right. 15:38:36

Q. And then there's an absorbent core that's enclosed between the top sheet and the back sheet; right? 15:38:37 15:38:39 15:38:41

A. Yes. 15:38:42

Q. That absorbent core has a first absorbent layer having an opening; right? 15:38:43 15:38:46

A. Yes. 15:38:49

Q. Now, that first absorbent layer is not the fluid-flow control structure; right? 15:38:50 15:38:52

A. It's part of the whole makeup of a fluid-flow control structure, just like elements make up your house which is a structure. 15:38:55 15:38:58 15:39:02

Q. Well, I have a question about that because I don't think that's an appropriate reading of the claim. 15:39:03 15:39:05 15:39:06

The claim says, "The absorbent core comprising of first absorbent layer having an opening, a fluid-flow control structure, and a second absorbent layer." 15:39:07 15:39:10 15:39:14 15:39:18

Do you see that? 15:39:20

A. I see that you jumped through a lot of words that you've avoided. 15:39:21 15:39:23

Q. We can read through the words. "It's a first absorbent layer having an opening that passes through the first absorbent layer from one major surface to an opposing major surface and there between the opening is surrounded by a closed periphery of first absorbent layer, a 15:39:25 15:39:28 15:39:31 15:39:33 15:39:36 15:39:39

fluid-flow control structure, and a second absorbent layer arranged between the fluid-flow control structure and the fluid-impermeable back sheet." 15:39:44 15:39:48 15:39:52 15:39:55

Did I read all of that correctly? 15:39:55

A. Yes. 15:39:56

Q. Okay. So in the absorbent core, there are three separate components; right? 15:39:57 15:40:01

A. But I think we need to read the rest of the claim. We just can't take half the claim. 15:40:03 15:40:05

Q. We'll get to the rest of the claims. 15:40:08

A. Okay. 15:40:09

Q. I'm trying to understand fluid-flow control structure. 15:40:10 15:40:13

The claim says the first absorbent layer and the second absorbent layer are different than the fluid-flow control structure; correct? 15:40:13 15:40:18 15:40:20

A. Yes. They're -- they are two separate pieces of the whole structure. 15:40:23 15:40:28

Q. Okay. And the whole structure there being the absorbent core; right? 15:40:31 15:40:34

A. The whole structure is the whole claim, 15:40:35

the whole claim which goes on to say, "Wherein the fluid-flow control structure is arranged between the first absorbent layer and said back sheet of said fluid-flow control structure being a layered structure comprising a nonperforated fibrous polymeric layer and a first perforated polymeric layer and wherein the opening extends along the longitudinal centerline of the absorbent article, the longitudinal centerline being parallel with the longitudinal direction of the absorbent article." 15:40:38 15:40:42 15:40:45 15:40:48 15:40:52 15:40:55 15:40:59 15:41:01 15:41:04 15:41:08 15:41:11

The fluid impermeable top sheet is in direct contact with the fluid-flow control structure via the opening. 15:41:11 15:41:14 15:41:17

So all the elements, the openings and where the positions and where the fluid is, makes the fluid-flow control structure, as defined in the '138. 15:41:19 15:41:22 15:41:25 15:41:28

Q. Do you understand that the claim has certain requirements about where the fluid-flow control structure is positioned; right? 15:41:29 15:41:30 15:41:33

A. Yes. 15:41:35

Q. And it has certain requirements about what the fluid-flow control structure has to include; correct? 15:41:35 15:41:38 15:41:41

A. Yes. 15:41:42

Q. What it has to include is a -- a -- it has to be a layered structure with a nonperforated fibrous polymeric layer and a first perforated polymeric layer; correct? 15:41:42 15:41:47 15:41:50 15:41:53

A. It's part of the whole description. 15:41:54

Q. That's what the fluid-flow control structure has to include; right? 15:41:57 15:41:59

A. Yes. 15:42:01

Q. Otherwise, it has to be positioned in a certain place within the absorbent article; correct? 15:42:01 15:42:05 15:42:07

A. Correct. 15:42:07

Q. Okay. You offer the opinion for not just Bergstrom, but multiple prior art references, that they do not disclose fluid-flow control structures; correct? 15:42:08 15:42:18 15:42:22 15:42:24

A. In comparison to the '138 patent which references a fluid-flow control structure. I am 15:42:24 15:42:26

saying they're not the '138 patent. 15:42:32

Q. Okay. 15:42:33

A. They're separate entities, separate pieces, separate patents. 15:42:34 15:42:37

Q. Yes. I'm aware that they are separate references. I'm trying to figure out why they do not disclose fluid-flow control structures. You say that they do not have a cohesive arrangement of elements to provide a particular function. 15:42:39 15:42:41 15:42:43 15:42:46 15:42:48

For components to be a fluid-flow control structure, do they have to be designed to be used together to provide a particular function? 15:42:52 15:42:55 15:42:58

A. Yes. 15:43:02

Q. And is that function fluid-flow control? 15:43:03

A. Yes. 15:43:07

Q. And they have to be designed to perform that function; correct? 15:43:09 15:43:12

A. They have to be designed to perform that function in relationship to what's described in the '138 to be called, in my mind, a fluid-flow control structure. 15:43:13 15:43:19 15:43:22 15:43:27

Q. And that's what you mean by a cohesive 15:43:28

arrangement of elements; is that correct? 15:43:30

A. Yes. 15:43:32

Q. Now I'm handing you patent owner's response. 15:43:33 15:43:37

A. Is this a time we could take a break? 15:43:56

Q. I have one quick question. Okay? 15:43:58

A. Okay. 15:44:00

Q. If we go to Page 65 of the patent owner's response, at the top of the page do you see a sentence which starts on the bottom of 64, "This comports with the ordinary and customary meaning of structure, as a POSA would have understood it, in view of the disclosures in the '138 patent which is a cohesive arrangement of elements to accomplish a particular function"? 15:44:00 15:44:06 15:44:14 15:44:19 15:44:23 15:44:26 15:44:28 15:44:31

Do you see that? 15:44:33

A. Yes. 15:44:34

Q. And so that parallels the opinion that you have that a fluid-flow control structure must be a cohesive arrangement of elements to accomplish a particular function; correct? 15:44:34 15:44:40 15:44:43 15:44:45

A. Yes. 15:44:46

Q. That's the argument that the patent owner is making to distinguish the prior art; correct? 15:44:51 15:44:52 15:44:55

ATTORNEY FLANNERY: Object to the form. 15:44:55

THE WITNESS: I'm not exactly sure what you mean prior patent owner. 15:44:58 15:45:01

BY ATTORNEY COHEN: 15:45:03

Q. Sorry. That's the argument that the patent owner is making to distinguish the Bergstrom reference; correct? 15:45:03 15:45:04 15:45:07

ATTORNEY FLANNERY: Object to the form. 15:45:09

THE WITNESS: I -- I -- you'd have to tell me more detail than just saying it's an objection. 15:45:09 15:45:12 15:45:14

BY ATTORNEY COHEN: 15:45:15

Q. Well, I -- if you look at this section -- we're talking about Bergstrom. You can look at Page 64 if you want. 15:45:16 15:45:18 15:45:23

A. What's the question, please? 15:46:17

Q. The argument that the patent owner is making to distinguish the Bergstrom reference mirrors your opinion that Bergstrom does not 15:46:18 15:46:21 15:46:24

disclose a cohesive arrangement of elements; correct? 15:46:27 15:46:31

A. Yes. 15:46:31

ATTORNEY COHEN: We can take a break. 15:46:32

THE VIDEOGRAPHER: We are going off the record. The time is 3:46. 15:46:33 15:46:34

(A recess was taken.) 15:46:40

THE VIDEOGRAPHER: We are back on the record. The time is 4:04. 16:04:03 16:04:09

BY ATTORNEY COHEN: 16:04:13

Q. Mr. Sheldon, on any of the breaks today have you discussed the substance of your testimony with counsel? 16:04:14 16:04:16 16:04:18

A. Not at all. 16:04:18

Q. Okay. Do you have any opinions of First Quality as a company? 16:04:19 16:04:26

A. I don't know very much about First Quality. They seem to be doing well. They seem to be growing. 16:04:27 16:04:30 16:04:33

Q. Okay. But you don't have any other opinions? 16:04:34 16:04:38

A. No. I really haven't been in contact 16:04:38

with people that have been working there. I kind of retired so I don't have a need to do any of that, so just another company, and there are a lot of companies out there. 16:04:40 16:04:43 16:04:46 16:04:50

Q. Do you have any opinions of them from when you were in the industry? 16:04:51 16:04:54

A. Of what? 16:04:55

Q. Of First Quality. 16:04:56

A. I -- one time we were trying to buy some nonwoven top sheets from them, but I don't have any opinions good or bad. They're businesses. 16:04:57 16:05:01 16:05:03

Q. Okay. Now, you offered opinions -- you -- sorry. You understand one of the grounds in the petition is anticipation based on Nakazawa; correct? 16:05:06 16:05:13 16:05:15 16:05:23

A. Yes. 16:05:23

Q. And you offered opinions in response to that position; correct? 16:05:24 16:05:26

A. Yes. Somewhere. What paragraph is that one? 16:05:28 16:05:29

Q. It starts on Page 82 of your declaration. 16:05:29 16:05:34

A. Okay. Okay. 16:05:35

Q. Okay. And you offer the opinion that Nakazawa does not anticipate the challenge claims of the '138 patent; correct? 16:05:52 16:05:55 16:06:01

A. Yes. 16:06:03

Q. Okay. Now, one of your opinions in 194 is that the only disclosure Dr. Pourdeyhimi points to for this limitation describes that the absorbent material is wrapped on the back and side surfaces with a hydrophilic sheet; correct? 16:06:04 16:06:11 16:06:15 16:06:19 16:06:21

A. Yes. 16:06:25

Q. And you cite Nakazawa at Paragraph 82? 16:06:26

A. Yes. 16:06:28

Q. Okay. Can you turn to Nakazawa at Paragraph 82? 16:06:32 16:06:33

A. You mean line number 082? 16:07:03

Q. Paragraph 82. 16:07:06

A. Paragraph 82. Okay, not page. 16:07:07

Q. It's Page 18. 16:07:09

A. Page 18, yes. 16:07:11

Q. Okay. Do you have that in front of you, Paragraph 82? 16:07:11 16:07:13

A. Yes, I do. 16:07:14

Q. And it says -- well, I guess can you just read that paragraph to yourself and let me know when you're done. 16:07:14 16:07:18 16:07:21

A. Okay. (Reviewing document.) Yes. 16:07:22

Q. Okay. So the paragraph says, "The absorbent material is generally wrapped on the back and side surfaces with a hydrophilic sheet serving as a carrier to prevent leakage of superabsorbent polymer and to prevent deformation of the absorbent material on the production line"; correct? 16:07:45 16:07:49 16:07:51 16:07:54 16:07:57 16:08:00 16:08:02

A. Yes. 16:08:02

Q. And then it says, "The absorbent article of the present invention may have the first absorbent material or second absorbent material wrapped in such a hydrophilic sheet"; correct? 16:08:02 16:08:11 16:08:12

A. Yes. 16:08:14

Q. And then it says, "The absorbent material may be entirely wrapped in a hydrophilic sheet or a portion of the absorbent material may be wrapped in a hydrophilic sheet"; correct? 16:08:16 16:08:18 16:08:20 16:08:23

A. Yes. 16:08:26

Q. So in the last sentence, Nakazawa is saying you can wrap the absorbent material entirely in the hydrophilic sheet; correct? 16:08:26 16:08:30 16:08:32

A. You can, but in Nakazawa there's another section that teaches me that they don't want the absorbent wrap over the hole. They want the absorbent to go strictly through. 16:08:34 16:08:39 16:08:44 16:08:49

Q. But you agree that in that line, they are saying the absorbent material is wrapped entirely in the hydrophilic sheet; correct? 16:08:53 16:08:55 16:08:58

A. In that piece of information, that limited piece, it says that. But it teaches away from that, and I got to look for where that location is. 16:09:00 16:09:04 16:09:09 16:09:11

Q. Well, I think it was Paragraph 85 -- 16:09:13

A. Mm-hmm. 16:09:17

Q. -- where it's talking about an embodiment in Figure 15. 16:09:18 16:09:21

A. Right. The configuration has the advantage of keeping SAP from leaking from the absorbent article material without impeding 16:09:23 16:09:27 16:09:29

permeation of excretory fluid from the hole portions to the diffusion sheet and providing shape stability to the second absorbent material. 16:09:32 16:09:35 16:09:38

So it's not wanting to impede the permeation. So I don't see it being a great idea to wrap it when it tells me that you're impeding permeation of fluid if you wrap it completely, so you want to keep the space underneath the holes open to the absorbent core. 16:09:40 16:09:46 16:09:50 16:09:54 16:09:57 16:10:00

Q. This paragraph -- Paragraph 85 in Nakazawa is -- is discussing Figure 15; correct? 16:10:03 16:10:06

A. It's a -- example is Figure 15. 16:10:10

Q. Okay. And it's saying what is shown in Figure 15 is this wrapping where it's not wrapped entirely; correct? 16:10:16 16:10:21 16:10:24

A. Yes. It shows that in Figure 15. Let me look at Figure 15, please. Yes. 16:10:25 16:10:29

Q. Okay. But in Paragraph 82, Nakazawa says the absorbent material can be wrapped entirely in the hydrophilic sheet; correct? 16:10:37 16:10:42 16:10:44

A. It's -- it could, but that's not the preferred embodiment. 16:10:47 16:10:50

Q. Okay. So the preferred embodiment in Nakazawa is to have an opening where the hole is; correct? 16:10:51 16:10:54 16:10:57

A. Yes. 16:10:57

Q. Okay. Now, in Paragraph 84, it's talking about the embodiment in Figures 14A and 14B; correct? 16:10:57 16:11:09 16:11:13

A. Yes. I see those. 16:11:13

Q. And the figures here do not show a hydrophilic sheet; correct? 16:11:19 16:11:24

A. I would have to check the numbers. So you're saying that there is no hydrophilic sheet at all in Figure 14A and 14B? 16:11:26 16:11:49 16:11:52

Q. Well, it's not shown in the figures. 16:11:55

A. Well, you're comparing it to Figure 15. 16:12:00

Q. Right. So in Figure 15, it says that they show hydrophilic sheet 51, but hydrophilic sheet 51 is not shown in Figures 14A or 14B; correct? 16:12:02 16:12:05 16:12:10 16:12:14

A. It's not listed there. 16:12:14

Q. Okay. But in Paragraph 84, the last sentence says, "The top sheet and diffusion sheet 16:12:20 16:12:34

may be bonded directly or via the hydrophilic sheet in which the absorbent material is wrapped." 16:12:36 16:12:41

Do you see that? 16:12:43

A. Yes. 16:12:43

Q. So although Nakazawa does not depict the hydrophilic sheet, it says that there can be a hydrophilic sheet wrapping the absorbent material; correct? 16:12:45 16:12:50 16:12:54 16:12:56

A. Well, from these pieces, it looks like you're adding them up again. 16:12:56 16:13:00

Q. Well, Nakazawa is disclosing it -- 16:13:02

A. Yes. 16:13:04

Q. -- in Paragraph 84 of that Figure 14; right? 16:13:05 16:13:09

A. Yes. 16:13:09

Q. Okay. And, in fact, if we went back to Paragraph 82, it says that it's -- it's not -- it may not be shown in the figure. It says, "While not shown in the figures, the absorbent material is generally wrapped on the back and side surface with a hydrophilic sheet," and it goes on. 16:13:09 16:13:11 16:13:19 16:13:22 16:13:25 16:13:27

So my question is Paragraph 82 16:13:28

acknowledges that hydrophilic sheet is not necessarily shown in the figures in Nakazawa; correct? 16:13:31 16:13:35 16:13:38

A. It says it's not shown in the figures. 16:13:38

Q. Okay. Now, Nakazawa discloses, if you turn to Paragraph 100 of your declaration, you say "Nakazawa" -- are you in Paragraph 100? Okay. 16:13:44 16:13:49 16:14:12

A. Yes. 16:14:15

Q. On Page 40. 16:14:15

"Nakazawa discloses a hydrophilic sheet that can wrap the absorbent core which can be made of tissue, absorbent paper, or hydrophilic-treated nonwoven fabric." 16:14:17 16:14:20 16:14:23 16:14:26

Correct? 16:14:27

A. That's what Nakazawa said in 43. 16:14:28

Q. Okay. And we can turn and look at 43. 16:14:31

And here it says, "The liquid-absorbing material constituting absorbent materials conventionally used in general absorbent articles such as disposable diapers include fluff, pulp -- fluff pulp, superabsorbent polymers (SAP) below and hydrophilic sheets. 16:14:54 16:14:57 16:15:01 16:15:03 16:15:07 16:15:10

"Wood pulp or non-wood pulp that has been unraveled into a cotton-like material is preferably used as fluff pulp, sodium polyacrylate is preferably used as a SAP, and tissue-absorbent paper or hydrophilic-treated nonwoven fabric is preferably used as a hydrophilic sheet. 16:15:13 16:15:17 16:15:22 16:15:25 16:15:28 16:15:30

"Synthetic fiber, such as thermally-bonded fibers, may also be included to keep the absorbent material from losing its shape?" 16:15:34 16:15:36 16:15:37 16:15:39

Do you see that? 16:15:39

A. Yes. 16:15:40

Q. Okay. So the hydrophilic sheet could be tissue-absorbent paper or a hydrophilic-treated nonwoven fabric; correct? 16:15:40 16:15:44 16:15:47

A. That's what it says in 43. 16:15:48

Q. And, actually, if we look two paragraphs above, in Paragraph 41, it says, "The absorbent material is preferably wrapped entirely in a hydrophilic sheet. Such a configuration has the advantage of preventing SAP leakage from the absorbent material and providing shape stability 16:15:50 16:15:54 16:15:59 16:16:02 16:16:05 16:16:08

to the absorbent material." 16:16:11

Do you see that? 16:16:12

A. Yes. It was common in the industry to 16:16:13

wrap those absorbent cores in a thin tissue. 16:16:16

Q. And that's the core wrap we were talking 16:16:20

about earlier? 16:16:23

A. Yes. 16:16:23

Q. Now, is tissue-absorbent paper or a 16:16:24

hydrophilic-treated nonwoven fabric a fibrous 16:16:32

polymeric material? 16:16:35

A. I don't understand your -- what's the 16:16:37

question? 16:16:43

Q. The question is are those materials 16:16:43

fibrous, I guess, to start with? 16:16:45

A. They're different so we have to take 16:16:48

each one individually. 16:16:50

Q. Okay. Is tissue fibrous? 16:16:51

A. Tissue is -- is a ground-up wood pulp, 16:16:53

and I would not say it's fibrous. 16:16:58

Q. Is absorbent paper fibrous? 16:17:01

A. Absorbent paper, again, is -- is just 16:17:04

paper. It's just dissolves pretty quickly. It's 16:17:09

what the CIA agents use to write on and then they put water on it and it disappears. James Bond. 16:17:12 16:17:16

Q. Okay. So does that mean it's fibrous or I don't -- I don't know. 16:17:19 16:17:25

A. I wouldn't say it's fibrous. 16:17:25

Q. What about the hydrophilic-treated nonwoven fabric? 16:17:27 16:17:31

A. Nonwoven fabrics are considered fibrous. They're extruded filaments of plastic, and naturally plastic is not absorbent. And even if you treat it with a hydrophilic treatment, which is soap, put some soap on it, it allows fluid to pass through but it still doesn't absorb anything. 16:17:31 16:17:36 16:17:38 16:17:41 16:17:44 16:17:49

Q. Okay. So is the hydrophilic-treated nonwoven fabric fibrous and polymeric? 16:17:52 16:17:57

A. It is -- it is a fiber that's made from plastic. 16:18:01 16:18:08

Q. And -- sorry. Just for -- since I'm not -- 16:18:09 16:18:12

A. Mm-hmm. 16:18:12

Q. -- in the field, does being made from plastic mean it's polymeric? 16:18:12 16:18:15

A. It is elements of polymeric, but polymeric is a very broad term used many different ways. 16:18:17 16:18:20 16:18:24

Q. Okay. Is there a way that a hydrophilic-treated nonwoven fabric would not be considered polymeric? 16:18:24 16:18:30 16:18:31

A. I can't think of anything right now. 16:18:33

Q. Okay. 16:18:38

A. But I'll have to give that some thought. 16:18:39

Q. In Paragraph 196, going back to your opinions on Nakazawa, because I think -- I guess, before we get to that, your first opinion is that Nakazawa does not disclose wrapping the absorbent material entirely in the hydrophilic sheet; right? 16:18:43 16:18:52 16:19:03 16:19:09 16:19:14

A. Where is that? 16:19:18

Q. Paragraph 194 of your declaration. 16:19:20

A. Yes, I see it on 194. 16:19:39

Q. Okay. My question there is your first opinion is that Nakazawa does not disclose wrapping the absorbent material entirely in the hydrophilic sheet; correct? 16:19:42 16:19:47 16:19:50 16:19:52

A. Their preferred embodiment was to not 16:19:53

wrap it and use it more as a cradle. 16:19:58

Q. Okay. But you agree that there is 16:20:00

disclosure in Nakazawa of wrapping the absorbent 16:20:02

material entirely in the hydrophilic sheet; 16:20:04

correct? 16:20:06

A. There's one reference that says it may 16:20:06

be wrapped. 16:20:08

Q. Okay. Now, if we go to Paragraph 196, 16:20:09

you say, "Even if the absorbent core were wrapped 16:20:20

with the hydrophilic sheet as Dr. 16:20:24

Pourdeyhimi suggests, this does not convert the 16:20:27

diffusion sheet and hydrophilic sheet into a 16:20:30

fluid-flow control structure as described and 16:20:33

claimed in the '138 patent. 16:20:35

"The purpose of the hydrophilic sheet is 16:20:37

to prevent leakage of superabsorbent polymer and 16:20:40

to prevent deformation of the absorbed material on 16:20:45

the production line." 16:20:48

Do you see that? 16:20:48

A. Yes. 16:20:49

Q. If a material is included in an 16:20:49

absorbent article with the purpose of preventing 16:20:56

leakage of superabsorbent polymer and preventing deformation of the absorbent material on the production line, that material is not part of the claimed fluid-flow control structure; correct? 16:21:01 16:21:05 16:21:08 16:21:12

A. No. It's just a core wrap to hold the product together. It's not really providing any gradients of absorbency or anything. 16:21:17 16:21:21 16:21:23

Q. Okay. And can you now turn to the patent owner response that I handed you previously? 16:21:27 16:21:32 16:21:33

A. That's this one (indicating)? 16:21:40

Q. Yes. And if you go to Page 54. 16:21:42

A. Okay. 16:21:53

Q. Here, start -- if you read the paragraph that starts, "Further, even if the absorbent core were wrapped." 16:21:54 16:21:57 16:22:00

Do you see that? 16:22:01

A. Yes. 16:22:02

Q. And it goes on, and it says, "The purpose of the high hydrophilic sheet is to prevent leakage of superabsorbent polymer and to prevent deformation of the absorbent material on 16:22:02 16:22:08 16:22:11 16:22:14

the production line." 16:22:16

Do you see that? 16:22:17

A. Yes. 16:22:18

Q. And so patent owner is similarly 16:22:18

distinguishing Nakazawa on the same position, that 16:22:23

a material that prevents leakage of superabsorbent 16:22:27

polymer and prevents deformation on the production 16:22:30

line is not part of the claimed fluid-flow control 16:22:33

structure; correct? 16:22:36

A. So I'm saying as noted above and agreed 16:22:37

by petitioners, experts, and lawyers, the 16:22:48

fluid-flow control structure must abide the same 16:22:51

functionality as one another. 16:22:53

Q. So my question was patent owner is 16:22:57

similarly distinguishing Nakazawa on the same 16:22:59

position that you offered, that a material that is 16:23:02

provided to prevent leakage of superabsorbent 16:23:05

polymer and prevent deformation of the absorbent 16:23:08

material on the production line is not part of the 16:23:11

claimed fluid-flow control structure; correct? 16:23:14

ATTORNEY FLANNERY: Object to the form. 16:23:16

THE WITNESS: You're talking about the 16:23:17

fluid-flow control structure, as defined in the '138 patent? 16:23:24 16:23:26

BY ATTORNEY COHEN: 16:23:27

Q. Correct. 16:23:28

A. Okay. I don't recall. 16:23:28

ATTORNEY FLANNERY: I still have the same objection. 16:23:42 16:23:45

THE WITNESS: I'd like to look at claim 1 again. 16:23:46 16:23:49

BY ATTORNEY COHEN: 16:23:49

Q. Okay. Okay. 16:23:50

A. Can you ask the question again, please. 16:24:43

Q. Okay. My question was, in looking at Page 54 of the patent owner response, patent owner is similarly distinguishing Nakazawa on the same position that you offered, that a material that is provided to prevent leakage of superabsorbent polymer and prevent deformation of the absorbent material on the production line is not part of the claimed fluid-flow control structure; correct? 16:24:45 16:24:47 16:24:53 16:24:56 16:24:58 16:25:01 16:25:04 16:25:07

A. Correct. 16:25:10

ATTORNEY FLANNERY: Object to the form. 16:25:10

THE WITNESS: As per the '138 patent. 16:25:15
BY ATTORNEY COHEN: 16:25:18
Q. The '138 patent makes clear that core 16:25:19
wrap is not part of the claimed fluid-flow control 16:25:22
structure; correct? 16:25:24
ATTORNEY FLANNERY: Object to the form. 16:25:25
THE WITNESS: Where does it reference 16:25:26
that? 16:25:27
BY ATTORNEY COHEN: 16:25:27
Q. We were talking about core wrap. Right? 16:25:28
Okay. Let me take a step back. 16:25:30
Core wrap is provided in absorbent 16:25:32
articles to prevent leakage of SAP and provide 16:25:35
integrity on the production line, as described by 16:25:41
Nakazawa; correct? 16:25:43
A. The core wrap is similar to the 16:25:44
cellulosic materials themselves. It's a tissue. 16:25:48
And it doesn't really provide any real 16:25:51
differential between the absorbent core and the 16:25:58
tissue itself. 16:26:01
But the absorbent core contains 16:26:01
superabsorbent and that's an overpowering thing in 16:26:06

the absorbent system. 16:26:08

Q. Okay. My question is more on the 16:26:09

fluid-flow control structure point. Okay? 16:26:14

A. Okay. 16:26:18

Q. The '138 patent claims the fluid-flow 16:26:18

control structure; correct? 16:26:20

A. Yes. 16:26:21

Q. And we've been talking about Nakazawa 16:26:22

and how Nakazawa discloses that its lower 16:26:24

absorbent material can be wrapped in a hydrophilic 16:26:28

nonwoven sheet; right? 16:26:33

A. It can be. That's what it said. 16:26:34

Q. And that is understood in the industry 16:26:36

to be core wrap; correct? 16:26:40

A. Hydrophilic nonwoven sheet can be a core 16:26:41

wrap when it's so thin that it's just performing a 16:26:48

function of a tissue. 16:26:51

Q. Okay. 16:26:54

A. So it doesn't -- it doesn't provide any 16:26:54

-- any enhancements or changes. It just functions 16:26:58

like a thin tissue. 16:27:02

Q. Okay. And when it is -- when the core 16:27:03

wrap is very thin and it's being provided to just contain superabsorbent polymer on a production line, it is not part of a fluid-flow control structure; correct? 16:27:08 16:27:12 16:27:14 16:27:18

ATTORNEY FLANNERY: Object to the form. 16:27:19

THE WITNESS: Well, the fluid-flow control structure, for me, is described in the '138 patent. 16:27:20 16:27:27 16:27:31

So I would look to the '138 patent to say this is what the fluid-flow control structure is. Now, these patents describe other elements. 16:27:32 16:27:35 16:27:39

So I'm -- I'm getting confused as why are we flipping back and forth on -- on tissue when it's not referenced as a part of the fluid-flow control structure in the '138. 16:27:48 16:27:50 16:27:54 16:27:57

BY ATTORNEY COHEN: 16:27:59

Q. Well, because I think I'm just -- that's more of what I'm just trying to figure out, is why is the hydrophilic nonwoven wrap in Nakazawa not part of the claimed fluid-flow control structure. 16:27:59 16:28:01 16:28:04 16:28:10

I think we talked about how its purpose is to help prevent SAP leakage. 16:28:14 16:28:16

A. Yes.
Q. It -- is it also because the hydrophilic sheet in Nakazawa is not intended to provide any sort of fluid management? 16:28:19 16:28:19 16:28:26 16:28:30
ATTORNEY FLANNERY: Object to the form. 16:28:32
THE WITNESS: I think the question is when -- why would you want to use an absorbent nonwoven core wrap versus tissue? I think that's your underlying question. 16:28:32 16:28:40 16:28:46 16:28:50
And you would only make that change because the nonwoven core wrap is more expensive. You'd only make that change if you were running extremely fast production because extremely fast production will break the tissue. 16:28:53 16:28:55 16:28:59 16:29:02 16:29:07
But it performs the same way, whether you call it a nonwoven or you call it a tissue, it performs the same way. Its function is to wrap the absorbent core to prevent the superabsorbent from falling out, and if you're going through machines a thousand feet a minute you're going to get some vibration and that's going to want to shake out the superabsorbent 16:29:11 16:29:14 16:29:17 16:29:20 16:29:23 16:29:25 16:29:29 16:29:31

particles. 16:29:33

The superabsorbent particles are the 16:29:34

size of salt crystals. And so it's very fine, 16:29:36

and you want to disperse between material, so you 16:29:40

just run it as fast as you can to save money. 16:29:43

And that's the only time I can think of 16:29:46

why somebody would use a nonwoven core wrap. And 16:29:48

nonwoven core wrap would have to be hydrophilic 16:29:53

because you want to have the fluid get in. 16:29:57

But, as I mentioned before, to make 16:30:00

nonwovens hydrophilic you add soap, and the soap 16:30:03

washes out as you urinate. So it would not be an 16:30:08

appropriate design in a product. 16:30:11

BY ATTORNEY COHEN: 16:30:17

Q. Okay. I don't think that was really 16:30:17

related to what my question was, because Nakazawa 16:30:18

discloses you can use hydrophilic nonwovens or 16:30:22

tissue as a wrap around its -- 16:30:25

A. Yes. 16:30:28

Q. -- absorbent material; right? 16:30:28

A. Mm-hmm. 16:30:30

ATTORNEY FLANNERY: Object to the form. 16:30:32

BY ATTORNEY COHEN: 16:30:32

Q. And your opinion that Nakazawa does not anticipate the '138 patent doesn't depend on what the material is for the hydrophilic sheet? 16:30:33 16:30:34 16:30:38

Am I correct in that understanding? 16:30:42

A. I'm -- can you ask the question again? You're confusing me. 16:30:43 16:30:49

Q. Sure. 16:30:49

Whether the hydrophilic sheet in Nakazawa was tissue, or hydrophilic nonwoven material, it would still be your opinion that Nakazawa does not disclose a fluid-flow control structure; correct? 16:30:50 16:30:54 16:30:58 16:31:01 16:31:04

ATTORNEY FLANNERY: Object to the form. 16:31:05

THE WITNESS: I -- I -- in -- as defined in the '138 patent, Nakazawa does not disclose a fluid-flow control structure. 16:31:06 16:31:09 16:31:13

BY ATTORNEY COHEN: 16:31:15

Q. Okay. And that's because the hydrophilic sheet in Nakazawa that wraps the lower core is not part of a fluid-flow control structure; correct? 16:31:15 16:31:21 16:31:24 16:31:26

ATTORNEY FLANNERY: Object to the form. 16:31:27

THE WITNESS: I -- I don't see a 16:31:27

fluid-flow control structure in Nakazawa. 16:31:32

BY ATTORNEY COHEN: 16:31:36

Q. Because the core wrap that we've been 16:31:37

talking about in Nakazawa is not part of the 16:31:39

fluid-flow control structure, in your opinion; 16:31:42

correct? 16:31:44

ATTORNEY FLANNERY: Object to the form. 16:31:44

THE WITNESS: As we agreed in '138, the 16:31:46

core wrap is not part of the fluid-flow control 16:31:52

structure. 16:31:55

And trying to translate that to a later 16:31:57

patent is like creating hindsight. It's trying 16:32:01

to make the '138 -- the Nakazawa into a -- a '138 16:32:05

patent. 16:32:10

I mean, I don't understand what you're 16:32:11

trying to get at. 16:32:13

BY ATTORNEY COHEN: 16:32:14

Q. I'm -- I'm trying to understand your 16:32:14

opinion and the confines of your opinion and why 16:32:16

your opinion is what it is. 16:32:19

A. Mm-hmm. 16:32:22

Q. You -- you provide statements in your declaration, and I'm just trying to understand what they mean. 16:32:22 16:32:27 16:32:29

And so I'm trying to understand why in the embodiments where the lower absorbent material of Nakazawa is wrapped in its entirety with the core wrap why is there no fluid-flow control structure in Nakazawa? 16:32:31 16:32:34 16:32:38 16:32:42 16:32:47

And now, I think, if I'm correct, one of the reasons why Nakazawa, even when its absorbent material is not wrapped entirely in core wrap does not have a fluid-flow control structure is because the core wrap is not part of the claimed fluid-flow control structure in the '138 patent. 16:32:48 16:32:53 16:32:56 16:33:00 16:33:03 16:33:06

Is that correct? 16:33:10

ATTORNEY FLANNERY: Object to the form. 16:33:10

THE WITNESS: That was a lot of words. 16:33:11

The fluid-flow control structure in the '138 is a particular design, and I get the feeling you're trying to make me say that the Nakazawa is a fluid-flow control structure 16:33:15 16:33:18 16:33:23 16:33:26

whether it has a core wrap or not, and it's not a fluid-flow control structure, as defined in the '138 patent. 16:33:29 16:33:35 16:33:37

BY ATTORNEY COHEN: 16:33:37

Q. I'm not trying to get you to say anything. I'm trying to understand why. Why is the core wrap in Nakazawa not part of a fluid-flow control structure in the -- as claimed in the '138 patent? 16:33:38 16:33:39 16:33:43 16:33:48 16:33:51

ATTORNEY FLANNERY: Object to the form. 16:33:51

THE WITNESS: It -- in the industry, we don't talk about core wraps being a fluid-management system. It wraps a product to prevent the superabsorbent from falling out. 16:33:52 16:33:58 16:34:04 16:34:07

BY ATTORNEY COHEN: 16:34:10

Q. Okay. 16:34:10

A. It's not there to control anything, manage anything. 16:34:11 16:34:14

Q. Okay. 16:34:16

A. Just the fluid, not -- just to keeping the superabsorbent particles from falling out. 16:34:17 16:34:19

Q. Okay. So to make sure I understand, and 16:34:21

this is using what you just said, core wraps in the industry would not be understood to be part of a fluid-flow control structure as claimed in the '138 patent? 16:34:25 16:34:28 16:34:32 16:34:35

ATTORNEY FLANNERY: Object to the form. 16:34:36

THE WITNESS: In the industry, core wrap is just to hold the material together. 16:34:37 16:34:44

When you talk about fluid management, you have other elements in the product that are discussed such as you did in Glaug where you've got fluid management coming into the product and how to manage the absorbency into the product and not come out. 16:34:46 16:34:50 16:34:52 16:34:55 16:34:59 16:35:02

And then we've talked about diffusion sheets being ways to have fluid move through a product up and down, sideways. That -- and so you're focused on an element that no one else focuses on. 16:35:03 16:35:08 16:35:11 16:35:18 16:35:21

BY ATTORNEY COHEN: 16:35:21

Q. Okay. And I -- I -- that's fair. I'm just really trying to make sure I understand. 16:35:21 16:35:25

Core wrap, because it just holds 16:35:27

material together, is not part of a fluid-flow control structure as claimed in the '138 patent? 16:35:30 16:35:33

ATTORNEY FLANNERY: Object to the form. 16:35:35

THE WITNESS: So you're confusing me with your questions. Are you saying that core wrap in the '138 patent is not referenced at all or discussed at all? 16:35:36 16:35:53 16:35:59 16:36:01

BY ATTORNEY COHEN: 16:36:04

Q. I -- 16:36:05

A. I would need to look back at this. 16:36:05

Q. I don't believe it is. I could be wrong. I don't think core wrap is discussed. And I guess my question is in the claim what it requires is a fluid-flow control structure being a layered structure comprising of nonperforated fibrous polymeric layer and a first perforated polymeric layer. 16:36:08 16:36:09 16:36:23 16:36:28 16:36:33 16:36:36 16:36:39

And so core wrap would not constitute the nonperforated fibrous polymeric layer that's part of the claimed fluid-flow control structure; is that correct? 16:36:42 16:36:49 16:36:53 16:36:56

ATTORNEY FLANNERY: Object to the form. 16:36:56

THE WITNESS: So looking at Figure 4, and I understand this is a two-layer, this is part of the fluid-flow control structure. 16:37:01 16:37:02 16:37:06

I'm not seeing in Figure 4 anything about core wrap. 16:37:11 16:37:14

BY ATTORNEY COHEN: 16:37:14

Q. Are the claims in the '138 patent limited to the embodiment shown in Figure 4? 16:37:14 16:37:17

A. No. 16:37:19

Q. Okay. So then if we look at the claims, the claims say, "A fluid-flow control structure being a layered structure comprising a nonperforated fibrous polymeric layer and a first perforated polymeric layer"; correct? 16:37:20 16:37:25 16:37:28 16:37:30 16:37:34

A. That's what it says. 16:37:37

Q. And so my question was core wrap is not the nonperforated fibrous polymeric layer as claimed; is that correct? 16:37:38 16:37:43 16:37:47

ATTORNEY FLANNERY: Object to the form. 16:37:48

THE WITNESS: I'm not seeing where core wrap is referenced in the '138, and certainly not how it's being construed as being -- it's an 16:37:48 16:37:54 16:37:57

essential element of the product, so I don't know that they're calling it out and claiming, but it exists in the product and is part of the product, the construction of the product. The cores are wrapped with tissue. 16:38:02 16:38:11 16:38:12 16:38:13 16:38:17

BY ATTORNEY COHEN: 16:38:18

Q. Okay. I get that. So that would be part of like the absorbent layer that's claimed? 16:38:19 16:38:20

A. Yes. 16:38:21

Q. Not part of the fluid-flow control structure; correct? 16:38:22 16:38:24

ATTORNEY FLANNERY: Object to the form. 16:38:25

THE WITNESS: The fluid-flow control structure is the entire structure, not just one layer or two layers as you're trying to sort out. 16:38:26 16:38:27 16:38:31

BY ATTORNEY COHEN: 16:38:35

Q. Well, I think -- I think we disagree on that. You keep saying it's the entire structure. 16:38:35 16:38:38

To be clear, the fluid-flow control structure is not the entire absorbent article. We're -- we agree on that; right? 16:38:40 16:38:42 16:38:45

A. The fluid-flow control structure is 16:38:47

within the two layers of absorbent and the hole, and it manages the fluid as it comes through into the product so that it can manage it in the X, Y direction and in the Z direction up and down. 16:38:51 16:38:55 16:38:58 16:39:02

Q. Okay. And so that -- the fluid-flow control structure, one of the layers is not core wrap; correct? 16:39:03 16:39:08 16:39:12

ATTORNEY FLANNERY: Object to the form. 16:39:13

THE WITNESS: We just said that the -- that the absorbent cores were probably wrapped with an absorbent tissue. 16:39:14 16:39:17 16:39:21

BY ATTORNEY COHEN: 16:39:23

Q. Okay. 16:39:24

A. So -- 16:39:24

Q. And that would be separate from the claimed fluid-flow control structure; correct? 16:39:25 16:39:27

ATTORNEY FLANNERY: Object to the form. 16:39:29

THE WITNESS: The claimed structure is the whole product. You -- you appear to be trying to peel out the core wrap to say it's not part of it when it's part of what they need to make the product. 16:39:30 16:39:33 16:39:37 16:39:41 16:39:44

BY ATTORNEY COHEN: 16:39:45

Q. Well, because, see, that's the issue I'm having. We're talking about this claim. You've offered opinions that the prior art does not invalidate this claim; correct? 16:39:45 16:39:48 16:39:51 16:39:54

A. Correct. That's my opinion. 16:39:55

Q. One of the opinions you've offered is that Nakazawa does not anticipate this claim because the core wrap in Nakazawa cannot be part of the fluid-flow control structure as claimed; right? 16:39:58 16:40:01 16:40:02 16:40:06 16:40:09

A. It would not be construed as part of a fluid-flow control structure as it's holding the product together -- 16:40:09 16:40:14 16:40:17

Q. Okay. 16:40:18

A. -- (inaudible).

Q. But then when I'm asking you questions, you're saying, well, the structure is the structure as a whole. It's the whole article. And I don't know -- that doesn't make sense to me if you've just said the core wrap is not part of the fluid-flow control structure. 16:40:18 16:40:20 16:40:21 16:40:23 16:40:25 16:40:27

A. I am saying the fluid-flow control structure, as defined in the '138, is the whole claim. 16:40:30 16:40:33 16:40:37

Q. Sorry. Is the whole -- this is all of Claim 1? 16:40:38 16:40:41

A. It describes what a fluid-flow control structure is, yes. 16:40:42 16:40:44

Q. Yes, I understand that it describes what a fluid-flow control structure is. But you agree with me that the fluid-flow control structure is not the top sheet, the back sheet, the absorbent layers, and the fluid-flow control structure; right? 16:40:45 16:40:47 16:40:50 16:40:53 16:40:55 16:40:58

A. Well, if we're saying it's a fluid-flow control structure, why is your last statement leaving out the fluid-flow control structure? Clear. 16:40:59 16:41:02 16:41:04 16:41:07

Q. Let's talk about what this claim requires. The claim is to the absorbent article as a whole; correct? 16:41:08 16:41:09 16:41:12

A. Yes. 16:41:13

Q. Okay. Now, it talks about a top sheet; 16:41:14

correct? 16:41:18

A. Yes. 16:41:18

Q. The top sheet is not the fluid-flow control structure; right? 16:41:19 16:41:21

A. The top sheet is standard in the industry. 16:41:21 16:41:26

Q. And it is not the fluid-flow control structure; correct? 16:41:27 16:41:29

A. No. 16:41:30

Q. There's a back sheet. That's not the fluid-flow control structure; correct? 16:41:31 16:41:34

A. It's not; correct. 16:41:35

Q. Then there's an absorbent core; right? 16:41:40

A. Yes. 16:41:43

Q. The absorbent core has three layers or three components? 16:41:45 16:41:50

A. Mm-hmm. 16:41:50

Q. A first absorbent layer with a hole, a fluid-flow control structure, and a second absorbent layer; right? 16:41:51 16:41:56 16:41:59

A. Right. 16:42:01

Q. Okay. Now, the core wrap in a product 16:42:01

is going to be around one of the absorbent layers; correct? 16:42:05 16:42:08

ATTORNEY FLANNERY: Object to the form. 16:42:11

THE WITNESS: It -- it -- again, as I've said with the equipment, some equipment can produce without core wraps, and some produce it with core wraps. 16:42:12 16:42:14 16:42:18 16:42:21

I was trying to find here where it references a core wrap wrapping the absorbent material. 16:42:22 16:42:25 16:42:28

BY ATTORNEY COHEN: 16:42:28

Q. Okay. 16:42:28

A. And I don't recall seeing that in this application. 16:42:29 16:42:32

Q. Okay. But when we're talking about the claims, and we're talking about Nakazawa and what Nakazawa discloses, it discloses a single diffusion sheet that sits over a wrapped absorbent core; correct? 16:42:32 16:42:36 16:42:39 16:42:44 16:42:47

ATTORNEY FLANNERY: Object to the form. 16:42:48

THE WITNESS: I would have to go back and look at that. 16:42:50 16:42:52

BY ATTORNEY COHEN: 16:42:52

Q. Okay. Well, let's stick with this claim because I want to make sure we are on the same page here because I'm getting confused and I just don't know. 16:42:53 16:42:54 16:42:56 16:42:58

A. So am I. 16:42:59

Q. Okay. The two absorbent layers, the first absorbent layer and the second absorbent layer, are separate from the claimed fluid-flow control structure; correct? 16:43:00 16:43:04 16:43:06 16:43:09

A. I see them as part of the fluid-flow control structure. They encompass the fluid-flow control structure. 16:43:10 16:43:15 16:43:19

Q. Well, the fluid-flow control structure has to be positioned between them? 16:43:20 16:43:22

A. Yes. 16:43:24

Q. But the claimed fluid-flow control structure is different from the absorbent layers; correct? 16:43:25 16:43:28 16:43:33

A. The absorbent layers are part of the fluid-flow control structure because you're managing fluid. You just can't pull out a central 16:43:34 16:43:37 16:43:41

element and say this is a fluid-flow control structure. The absorbent on the top with the hole is critical. 16:43:44 16:43:47 16:43:51

The fluid-flow control structure with its hole and the bottom layer of absorbent is critical to managing how the fluid comes in, gets distributed, and prevents leakage. 16:43:52 16:43:55 16:43:57 16:44:03

Q. The fluid-flow control structure has two layers; right? A nonperforated fibrous polymeric layer and a first perforated polymeric layer; correct? 16:44:05 16:44:20 16:44:23 16:44:26

A. It says, to be clear, the fluid-flow control structure is arranged between the first absorbent layer and the -- and the said back sheet and the fluid-flow control structure being the layered structure comprising of a nonperforated fibrous polymeric layer and a first perforated polymeric layer, and it goes further in terms of -- 16:44:27 16:44:48 16:44:52 16:44:55 16:44:57 16:45:01 16:45:05 16:45:08

Q. I know. But what -- and what -- 16:45:08

A. -- opening and how it functions. 16:45:09

Q. -- is the rest in the absorbent article? 16:45:10

A. Pardon? 16:45:13

Q. It recites more about what's in the absorbent article. 16:45:14 16:45:16

A. Yes. 16:45:16

Q. But the fluid-flow control structure, as claimed in Claim 1, requires a perforated layer and a nonperforated layer; right? 16:45:17 16:45:19 16:45:27

Those are the components that are part of the fluid-flow control structure as opposed to where the fluid-flow control structure is in the absorbent article? 16:45:30 16:45:32 16:45:34 16:45:36

A. They're part of it as -- as they add up to the entire claim of the '138 patent. 16:45:36 16:45:39

Q. Those are the only two components identified in Claim 1 of the '138 patent that form the fluid-flow control structure; correct? 16:45:41 16:45:47 16:45:51

A. I -- I -- I disagree. I look at the whole construct as being part of the fluid-flow control structure, not two layers. 16:45:53 16:45:57 16:46:00

Q. So when you are reading the prior art and you are reading this claim, what, in your opinion, is part of the claimed fluid-flow control 16:46:03 16:46:06 16:46:09

structure? 16:46:11

A. The fluid-flow control structure is part of the absorbent product described herein. 16:46:13 16:46:16

Q. Okay. And what does it have to include? 16:46:18

A. It has to be an absorbent product, so it has to have absorbent layers. 16:46:22 16:46:24

Q. Okay. Maybe my question was not clear. 16:46:28

What does the claimed fluid-flow control structure have to include, in your opinion? 16:46:30 16:46:32

A. Well, I can read the patent again, and we can know that the fluid-flow control structure is arranged between things, and it's a layered structure comprising of a nonperforated fibrous polymeric layer and a first perforated polymeric layer. 16:46:37 16:46:39 16:46:41 16:46:45 16:46:49 16:46:52

Q. Okay. And a nonperforated fibrous polymeric layer is not core wrap as used in the industry? 16:46:53 16:46:56 16:47:00

ATTORNEY FLANNERY: Object to the form. 16:47:00

THE WITNESS: I -- I would say it is not core wrap. 16:47:01 16:47:03

ATTORNEY COHEN: Okay. Why don't we 16:47:21

take a break? 16:47:22

THE VIDEOGRAPHER: Okay. We are going 16:47:22

off the record. The time is 4:47. 16:47:24

(A recess was taken.) 16:47:27

THE VIDEOGRAPHER: We are back on the 16:59:23

record. The time is 4:59. 16:59:32

BY ATTORNEY COHEN: 16:59:38

Q. So, Mr. Sheldon, we were just talking 16:59:44

about Nakazawa and your opinions on anticipation. 16:59:46

I just wanted to make sure I understand one thing. 16:59:51

We agree that Nakazawa discloses having 16:59:53

its absorbent material wrapped in core wrap; 16:59:57

correct? 17:00:00

A. It's an option, yes. 17:00:00

Q. And even when that option is included, 17:00:03

Nakazawa does not disclose a fluid-flow control 17:00:08

structure because the core wrap is not part of the 17:00:10

claimed fluid-flow control structure; correct? 17:00:13

A. That's my opinion. 17:00:17

Q. And that's also the opinion that we saw 17:00:19

echoed in the patent owner response that patent 17:00:22

owner filed to distinguish Nakazawa; correct? 17:00:27

A. Yes. 17:00:29

Q. If you go to Page 51 -- or, actually -- 17:00:29

yeah, Page 49 to 50 of your Exhibit 2001 17:00:52

declaration. 17:00:59

A. Page 49? 17:01:17

Q. Yes. Start -- I'm looking at Paragraph 17:01:17

122. 17:01:22

A. Okay. 17:01:22

Q. "The fluid-flow control structure, as a 17:01:24

whole described and claimed in the '138 patent, 17:01:26

must be porous to allow the flow of fluid through 17:01:30

the structure and into the absorbent layers of the 17:01:33

absorbent article," and then you quote the '138 17:01:37

patent. 17:01:39

Do you see that? 17:01:39

A. Yes. 17:01:40

Q. And so my question is, for this porous 17:01:40

internal structure of the fluid-flow control 17:01:50

structure, does that mean it has to allow fluid 17:01:53

distribution in kind of the X, Y plane of the 17:01:59

absorbent article? 17:02:03

ATTORNEY FLANNERY: Object to the form. 17:02:06

THE WITNESS: My understanding it would, but I don't know where it's referenced in here. 17:02:08 17:02:13 17:02:15

BY ATTORNEY COHEN: 17:02:17

Q. You quote Column 7, Line 45. 17:02:17

A. Okay. Yes. I say, "The means that the fluid dispersation rate changes at the edges of the fluid-flow control structure so that fluid that reaches the edges will continue to move primarily in the fluid-flow control structure or the flow resistance is low, therefore, being absorbed by the core material." 17:02:21 17:02:46 17:02:49 17:02:51 17:02:53 17:02:56 17:03:00

So it's managing the fluid movement. 17:03:02

Q. In sort of the X/Y plane of the absorbent article? 17:03:04 17:03:12

A. It would manage it in the X/Y plane and it would also manage it in the Z direction up and down both absorbent cores. 17:03:13 17:03:15 17:03:19

Q. Is the opinion that you're offering in Paragraph 122 that the claimed fluid-flow control structure requires that kind of X/Y distribution of fluid as well as the Z direction? 17:03:22 17:03:24 17:03:28 17:03:35

A. I -- I didn't say that here. 17:03:38

Q. Well, I guess I'm trying to understand what you mean by the -- you say the fluid-flow control structure as a whole described in the claim in the '138 patent must be porous. 17:03:40 17:03:42 17:03:46 17:03:50

What do you mean by "porous" there? 17:03:53

A. It must allow fluid to go through it. If it was a barrier, fluid would not go through it. 17:03:55 17:03:57 17:03:59

Q. Okay. So it's just -- 17:03:59

A. It would not be transported. 17:04:01

Q. It's just enough for the fluid to go in the Z direction for it to be a fluid-flow control structure or it has to both go in Z and X/Y? 17:04:02 17:04:05 17:04:07

ATTORNEY FLANNERY: Object to form. 17:04:10

THE WITNESS: I think it's the whole structure is allowing for fluid to move in all directions. 17:04:11 17:04:13 17:04:16

BY ATTORNEY COHEN: 17:04:16

Q. Okay. So for the -- when you say the fluid-flow control structure, as claimed, must be porous, it must allow fluid flow in the X, Y, and 17:04:17 17:04:21 17:04:23

Z direction? 17:04:28

ATTORNEY FLANNERY: Object to the form. 17:04:31

THE WITNESS: It should be porous so the fluid can be moved -- 17:04:32

BY ATTORNEY COHEN: 17:04:35

Q. Sorry. I -- 17:04:36

A. -- in all directions. 17:04:36

Q. Okay. And in all directions is the X, Y, and Z direction? 17:04:37

A. Mm-hmm. 17:04:41

Q. Okay. Is that a "yes"? 17:04:42

A. Yes. 17:04:45

Q. Okay. Sorry. Just for the transcript. 17:04:45

For the fluid-flow control structure as claimed in the '138 patent, do the layers need to be provided to the absorbent article in any particular way during manufacturing? 17:04:47

A. I don't understand the question. 17:05:48

Q. Well, we -- earlier you were talking a lot about Glaug. We were talking about the Glaug's fluid acquisition system. 17:05:52

A. Mm-hmm. 17:06:01

Q. And you said the two layers there that are glued together and provided to the article wouldn't be considered a structure. 17:06:01 17:06:03 17:06:07

I still don't understand that, what the difference is between the layers glued together and a structure. 17:06:09 17:06:11 17:06:14

And so I guess what I'm wondering is does the fluid-flow control structure, as claimed, need to be manufactured in a particular way? 17:06:15 17:06:20 17:06:22

A. I -- I don't understand what you mean by "manufactured in a particular way." 17:06:25 17:06:30

Q. Does the fluid-flow control structure need to be created before it's introduced to the rest of the absorbent article during manufacturing? 17:06:31 17:06:37 17:06:40 17:06:43

A. That's a hypothetical and you're asking me to conjecture. I would -- I would say probably made ahead of time and not on the production line. 17:06:43 17:06:49 17:06:53

But I'm not familiar with their production line and how this was made. 17:06:56 17:06:58

Q. Okay. 17:07:00

A. So it's a hypothetical, and I'm 17:07:02

guessing. 17:07:03

Q. For Glaug, where you said it's not a fluid-flow control structure because to you it's a layer -- 17:07:04 17:07:11 17:07:12

A. It's a layer. 17:07:13

Q. Okay. But it was originally two separate layers that were joined together; right? 17:07:13 17:07:16

A. Yes. 17:07:19

Q. Why does that not make them a structure? 17:07:19

A. They're two -- in my opinion, a layer is a layer. It's not a structure. 17:07:23 17:07:26

Q. But Glaug doesn't refer to its fluid acquisition system as a layer. It says it has two layers; right? 17:07:29 17:07:35 17:07:40

A. Yes. 17:07:41

Q. Okay. So Glaug is saying it's not a layer; right? It's saying it's two layers? 17:07:41 17:07:46

A. Well, it's two layers that are joined into one to produce the product that Glaug is, and Glaug does reference that the layers may be glued or bonded together. 17:07:50 17:07:53 17:07:56 17:08:01

And having seen the Glaug product, the 17:08:05

layers were glued and bonded together. 17:08:07

Q. And so having seen Glaug, it's your opinion that the fluid-flow control structure is a layer, not a structure? 17:08:09 17:08:17 17:08:19

A. My opinion is a layer is a layer, not a structure. 17:08:21 17:08:24

Q. But Glaug -- I guess the issue I'm having is Glaug doesn't say fluid acquisition system is a layer. It says it's two layers, and you're saying it's a layer. 17:08:24 17:08:28 17:08:30 17:08:33

A. Well, it's two layers that are combined on -- in the process somewhere. 17:08:34 17:08:36

Q. And that, in your opinion, makes them one layer and not a structure? 17:08:38 17:08:43

A. Whether it's two layers in Glaug or one layer in Glaug, it's still a layer. 17:08:44 17:08:51

Q. When does something stop being a layer and start being a structure? 17:08:53 17:08:56

A. When it's combined with structural elements. 17:09:02 17:09:05

Q. Like what? 17:09:06

ATTORNEY FLANNERY: Object to the form. 17:09:06

BY ATTORNEY COHEN: 17:09:10

Q. Sorry. When you say "structural elements," what are you referring to? 17:09:11 17:09:12

A. In the '138 patent, which I'm going back to, you have two absorbent layers, one on the top, one on the bottom. You have a hole in the upper layer. 17:09:16 17:09:18 17:09:22 17:09:24

You have the fluid-flow control structure between the two with the different absorbents, the cut-out area, the layers. It works quite well. 17:09:24 17:09:26 17:09:31 17:09:36

It's an elegant design to make that fluid-flow control structure work very well. 17:09:38 17:09:42

It's not just one layer of one material. It's a structure. 17:09:43 17:09:48

Q. Okay. So there, again, you're referring to the whole absorbent article, right, in that answer you just gave me? 17:09:50 17:09:52 17:09:55

ATTORNEY FLANNERY: Object to the form. 17:09:56

THE WITNESS: I'm referring to how the whole -- how the fluid-flow control structure works. 17:09:58 17:10:00 17:10:03

BY ATTORNEY COHEN: 17:10:04

Q. So in order for something to be a fluid-flow control structure, in your opinion, you need to have two additional absorbent layers and the entire absorbent article designed around it? 17:10:09 17:10:14 17:10:16 17:10:18

ATTORNEY FLANNERY: Object to the form. 17:10:23

THE WITNESS: I'm referencing the '138 patent describes a fluid-flow control system, and that's what I'm using as a fluid-flow control system. 17:10:23 17:10:26 17:10:34 17:10:36

BY ATTORNEY COHEN: 17:10:37

Q. And my -- my question is -- I don't understand why Glaug's fluid acquisition system, in your opinion, is not a structure. 17:10:37 17:10:40 17:10:43

I understand that Glaug does not have the other components that are claimed, like the two absorbent layers where the upper layer has an opening. 17:10:47 17:10:50 17:10:53 17:10:56

I don't understand why the fluid acquisition system, as described in Glaug, which has two layers that are glued together, is not a fluid-flow control structure. 17:10:56 17:10:58 17:11:02 17:11:06

And all I'm hearing from you is that it doesn't have other parts in the claims of the '138 patent? 17:11:07 17:11:10 17:11:13

ATTORNEY FLANNERY: Object to the form. You've mischaracterized the testimony the entire day. Unbelievable. 17:11:15 17:11:18 17:11:20

ATTORNEY COHEN: Say your objection and then stop. 17:11:22 17:11:24

ATTORNEY FLANNERY: Yeah. 17:11:25

THE WITNESS: The fluid-flow control structure, as referenced in the '138, is the '138. I can't call Glaug a fluid-flow control structure like in the '138. 17:11:29 17:11:30 17:11:36 17:11:40

I call Glaug layers. It's layers of material on top of an absorbent product. I mean, there's nothing structural or unique or different. 17:11:42 17:11:49 17:11:52 17:11:55

It's just putting layers on top of a current absorbent product. 17:11:55 17:11:58

BY ATTORNEY COHEN: 17:12:00

Q. If we look at the '138 patent, it describes the fluid-flow control structure; right? 17:12:00 17:12:07

I am looking -- he spends a fair amount of time describing these layers of the fluid-flow control structure. 17:12:16 17:12:25 17:12:28

In Column 2, starting around Line 64, and throughout the '138 patent, it talks about the fluid-flow control structure; correct? 17:12:35 17:12:39 17:12:44

A. I'll look at that, but first I'd like to ask if the lights can be turned up. They're pretty dim for me to read. 17:12:45 17:12:49 17:12:52

Q. Not my conference room so I don't know. 17:13:13

A. I understand, but it's -- it's a copy of a copy of a copy of a patent, and it -- and it's kind of pretty thin on the print. 17:13:15 17:13:17 17:13:20

ATTORNEY FLANNERY: We'll try to get somebody in here. 17:13:27 17:13:29

THE WITNESS: Okay. 17:13:32

BY ATTORNEY COHEN: 17:13:33

Q. If you turn to Column 3, Line 63 -- 17:13:33

A. Okay. 17:13:41

Q. -- it says, "The layers in the fluid-flow control structure may be attached to each other by means of an adhesive." 17:13:42 17:13:44 17:13:46

Do you see that? 17:13:48
A. Yes. 17:13:48
Q. So I guess gluing together layers doesn't make them not a structure; right? The '138 patent says you can glue the layers of the structure together; correct? 17:13:49 17:14:00 17:14:05 17:14:08
A. This says you can. 17:14:10
Q. And it says the -- it goes on, "You can join them through other means." 17:14:14 17:14:23
Then at the top of Column 4, it says, "The fluid-flow control structure has an overall planar shape"; correct? 17:14:27 17:14:29 17:14:36
A. Yes. 17:14:36
Q. And so that's after the layers have been joined together; is that -- am I understanding that correctly? 17:14:37 17:14:43 17:14:45
A. It -- it may be cut and shaped into that -- into the product. 17:14:46 17:14:50
Q. So just gluing together layers doesn't make them a single layer. They could be a structure; correct? 17:14:52 17:15:01 17:15:04
A. In -- in the description of the '138, 17:15:04

they're describing a fluid-flow control structure. 17:15:09
So I look to the '138 to say this is a fluid-flow 17:15:14
control structure. 17:15:17
If I look at Glaug, I don't see the same 17:15:20
thing. I see a layer on top of an absorbent 17:15:24
product. 17:15:28
Q. Why do you not see the same thing in 17:15:29
Glaug? What is different to you? 17:15:30
A. You're ignoring all the other materials 17:15:33
and shapes and changes in the '138 and focusing on 17:15:36
one thing and asking me if two layers glued here 17:15:41
are the same thing as two layers glued in Glaug. 17:15:48
And I'm saying it's two different products. 17:15:53
It's two different patents. It's two 17:15:55
different inventions. 17:15:57
The inventions are different. 17:15:57
Q. What is required by the claims of the 17:15:59
'138 patent for the fluid-flow control structure? 17:16:04
ATTORNEY FLANNERY: Object to the form. 17:16:07
THE WITNESS: Well, the whole patent 17:16:08
describes the fluid-flow control structure, how 17:16:12
it functions, how it's placed in the product and 17:16:17

what it does for the product. 17:16:19

BY ATTORNEY COHEN: 17:16:21

Q. So is it your testimony that fluid-flow control structure, as claimed in the '138 patent, requires taking all of the embodiments in the specification to understand what it means? 17:16:21 17:16:24 17:16:28 17:16:31

A. I -- my understanding is you go to the claims of the patent to see what the property is that they're claiming, and you go through the claim and you don't pull out one or two sentences and say this or that. 17:16:34 17:16:39 17:16:42 17:16:45 17:16:48

Q. Well, all the claim says is that the fluid-flow control structure is positioned in a certain way in this absorbent article, and it's a layered structure comprising of nonperforated fibrous polymeric layer and a first perforated polymeric layer. 17:16:50 17:16:52 17:16:56 17:16:59 17:17:03 17:17:07

That's what the claim says? 17:17:08

A. That's what the claim says. 17:17:09

Q. Okay. Now, Glaug has in its fluid acquisition system a perforated polymeric layer; correct? 17:17:10 17:17:17 17:17:20

A. Yes. 17:17:20

Q. And it has a nonperforated fibrous polymeric layer; correct? 17:17:24 17:17:28

A. Correct. 17:17:29

Q. Okay. Let's set that aside. 17:17:29

You offered testimony about Bergstrom's forming element before. We talked about that a lot today. 17:17:31 17:17:35 17:17:39

A. Yes. 17:17:39

Q. And one of the -- one of the opinions that we talked about that you've offered is that because forming element 60 has to have a certain stiffness, it's your opinion that the perforated plastic films, as disclosed in Bergstrom, means that the forming element undergoes a mechanical perforation; am I correct? 17:17:40 17:17:48 17:17:52 17:17:55 17:18:00 17:18:05 17:18:09

A. No. I'm saying that the -- the porous plastic film, as you've pointed out and described in Bergstrom, has requirements. It's typically impervious to fluid. It's nonabsorbent to fluid. And it has to have a particular resistance for side strength. 17:18:11 17:18:17 17:18:20 17:18:29 17:18:32 17:18:36

Could you do that with thinner materials? You could, without perforating, without tendering, without softening, or if you use thicker materials, you may have to do some type of post-process treatment to make it match the physical parameters of flexibility for -- for the forming element 60. 17:18:37 17:18:41 17:18:44 17:18:47 17:18:50 17:18:52 17:18:56

Q. If you were to add holes to forming element 60, would that make it more flexible? 17:18:58 17:19:01

A. Usually, from my experience, a needle loom or needle punching or -- or micro lasers going through that material will make it more flexible. 17:19:04 17:19:11 17:19:15 17:19:17

Q. If you were to provide holes that were larger, would that make the material more flexible? 17:19:20 17:19:23 17:19:28

A. Not necessarily. No. I don't think so. I think that -- I think we're talking, to make that material flexible, one option is micro -- micro-sized holes. 17:19:29 17:19:35 17:19:37 17:19:42

Q. Okay. 17:19:43

A. Like, fine needles. And in plastic, you 17:19:43

have surface tension, just like this wooden table. If you pour water on it, it doesn't absorb in the table. 17:19:51 17:19:54 17:19:57

If you pour water on a plastic film that's microperforated, it's going to sit there. It's not going to be absorbed and it's not going to go through. 17:19:57 17:20:00 17:20:03 17:20:05

Q. Are there instances where if you added larger holes that would allow fluid through to a stiff material, it would make the material more flexible? 17:20:13 17:20:15 17:20:19 17:20:21

A. No. 1, it depends upon the plastic itself. If it's a very stiff plastic, no matter how big the holes are, it won't be flexible. 17:20:21 17:20:43 17:20:46

You'd have to choose the right kind of plastic. You'd have to choose the right kind of aperturing to have the flexibility you want, along with the typical fluid resistance, fluid impervious. 17:20:50 17:20:53 17:20:57 17:21:02 17:21:11

Q. Now, I think we talked about this. Bergstrom itself does not use the term "microperforate" or "needle perforations"; 17:21:11 17:21:13 17:21:19

correct? 17:21:21

A. Correct. 17:21:21

Q. Can you turn to Page 21 of Exhibit 2001. 17:21:22

And do you see at the top of the page you say, "As an example, a POSA would not know -- would not -- would know not to use a 3D apertured film like Tredegar," and then you go on? 17:21:45 17:21:48 17:21:51 17:21:57

A. Yes. This was tried once on diapers and it just did not have the strength. The diaper tape attachments broke it. It's a very, very stiff material. 17:21:58 17:22:03 17:22:05 17:22:09

So it has to be managed appropriately to incorporate it into a product. 17:22:11 17:22:14

Q. Okay. And you say, "Such a design would require a minimum of two pounds of cross-direction tensile strength for the top sheet, whereas 3D-apertured films typically only have about 1.5 pounds of CD tensile strength." 17:22:16 17:22:20 17:22:23 17:22:26 17:22:30

Do you see that? 17:22:35

A. I remember those numbers because we had consumer products were failing and we had to fix it immediately. 17:22:35 17:22:43 17:22:45

Q. I guess my question there is when you say "typically," how are you using it in that sentence? 17:22:49 17:22:51 17:22:53

A. I'm just looking. Where is "typically"? 17:22:54

Q. "Whereas 3D-apertured films typically only have about 1.5 pounds of CD tensile strength." 17:23:12 17:23:15 17:23:19

A. I'm using it as all the data we had, all the lots from Tredegar, all the shipment that came in in all of our laboratory testing, and Q/A at multiple plants indicated that it failed when the strength went below two pounds. 17:23:24 17:23:30 17:23:32 17:23:35 17:23:40

And what I'm saying is that when we went to Tredegar and said, what's your strongest material, they said the best they can do is 1.5. 17:23:42 17:23:49 17:23:51

So I would not expect anything greater than 1.5 pounds of strength. 17:23:56 17:23:58

Q. Okay. Now, we've been talking a lot today about your interpretation of different prior art references. 17:24:02 17:24:17 17:24:20

How -- when you were reviewing the prior art, did you read a reference that had a preferred 17:24:24 17:24:27

embodiment but disclosed alternative embodiments? 17:24:32

A. I don't recall. Can you give me a 17:24:36

specific example? 17:24:39

Q. Sure. So in Nakazawa, for example, 17:24:40

there are multiple embodiments of its absorbent 17:24:44

article; correct? 17:24:47

A. Mm-hmm. 17:24:48

Q. So how did you consider all of the 17:24:48

alternative embodiments in Nakazawa when you were 17:24:52

doing your analysis? 17:24:55

A. I considered all the embodiments in 17:24:57

Nakazawa. 17:24:59

Q. And if a reference says it has a 17:25:00

preferred embodiment, how did you treat that 17:25:07

compared to alternative embodiments? 17:25:09

A. I would say that an embodiment is an 17:25:12

embodiment when referenced in prior art, and I 17:25:21

look at both. 17:25:23

Q. How did you evaluate whether a person of 17:25:24

ordinary skill in the art would have been 17:25:38

motivated to combine prior art references? 17:25:41

A. I worked in research and development for 17:25:45

many years -- for many years closely with legal counsel in patent -- patent development, not litigation, but patent development. And we would work in concert. 17:25:47 17:25:52 17:25:54 17:25:58

My experience is that my research development people that we hired out of college, out of university and provided about two years of training, were pretty astute. 17:26:01 17:26:04 17:26:06 17:26:10

They might not know everything about everything in the industry, but I could give them a project such as infant baby diapers and they would be pretty astute on infant baby diapers. About that time, they're coming up with ideas to make improvements. So I'd have them work with our counsel to begin putting together the structure of a patent. 17:26:13 17:26:15 17:26:18 17:26:22 17:26:26 17:26:29 17:26:32 17:26:35

Along the way, they may have an idea, well, we're now going to test that idea. We're going to try to make hand samples. We're going to try to do some things. 17:26:36 17:26:39 17:26:42 17:26:45

And probably, say, 60 percent of the time it didn't pan out. We didn't go any further. 17:26:46 17:26:51

And 40 percent of the time we would go further and -- and see where it's going and its potential. 17:26:54 17:26:58

At that point in time, we would bring in our marketing department because they need to sell the product. 17:27:01 17:27:04 17:27:07

So if we come up with, you know, six handles on your glass of water, can they sell it? They're going to say no. Even though it's a novel idea, no one else has patented it. We abandon that idea and move on. 17:27:08 17:27:10 17:27:13 17:27:16 17:27:20

Q. Okay. Now, you used the phrase "teaching away" in your declaration. I think we looked at the few examples of that. 17:27:21 17:27:26 17:27:31

A. Yes. 17:27:33

Q. What does that mean to you, the concept of teaching away? 17:27:33 17:27:35

A. Of teaching away is clearly the patent is advising you, "Don't do this." 17:27:36 17:27:41

ATTORNEY COHEN: Okay. I don't have any further questions. 17:27:43 17:27:51

ATTORNEY FLANNERY: I have nothing. Thank you. 17:27:52 17:27:54

THE VIDEOGRAPHER: This marks the end of the deposition of Donald Sheldon. We are going off the video record. The time is 5:28. 17:27:55 17:27:56 17:27:59

- - - 17:29:35

(Thereupon, the deposition was concluded at 5:28 p.m.) 17:29:35

- - -

CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

I, Alyssa A. Repsik, Certified Reporter and Notary Public within and for the State of Pennsylvania do hereby certify:

That DONALD SHELDON, the witness whose deposition is hereinbefore set forth, was duly sworn by me before the commencement of such deposition and that such deposition was taken before me and is a true record of the testimony given by such witness.

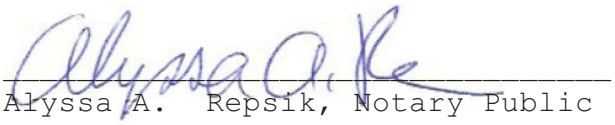
I further certify that the adverse party, ESSITY HYGIENE AND HEALTH AB, was represented by counsel at the deposition.

I further certify that the deposition of DONALD SHELDON, occurred at the offices of Dechert LLP, 2929 Arch Street, Philadelphia, Pennsylvania, 19104, on Friday, November 21, 2025, commencing at 9:38 a.m. to 5:28 p.m.

I further certify that I am not related to any of the parties to this action by blood or marriage, I am not employed by or an attorney to any of the parties to this action, and that I am in no way

interested, financially or otherwise, in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 23rd day of November, 2025.



Alyssa A. Repsik, Notary Public
Court Reporter
Notary Public
Berks County
My Commission Expires March 12, 2028
Commission Number 1296614

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