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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PERMIAN GLOBAL INC., and MANTICORE FUELS, LLC,
Petitioner
v.
FUEL AUTOMATION STATION, LLC,
Patent Owner.

IPR2023-01236 (Patent 10,815,188 B2)
IPR2023-01237 (Patent 9,586,805 B1)
IPR2023-01238 (Patent 10,974,955 B2)

Record of Oral Hearing
Held: December 5, 2024

Before CARL M. DEFRANCO, RICHARD H. MARSCHALL, and BRENT M. DOUGAL, Administrative Patent Judges.

APPEARANCES:

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The above-entitled matter came on for hearing on Thursday, December 5, 2024, commencing at 9:00 a.m., at the U.S. Patent and Trademark Office, 1961 Stout Street, 14th Floor, Denver, Colorado.

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

11:02 a.m.

JUDGE DOUGAL: Good morning.

MS. FLANNERY: Good morning.

MR. KOZIARZ: Good morning.

JUDGE DOUGAL: I'm Judge Dougal. We are here for the oral hearing of a bunch of cases, IPR2023-01236, and 37, and 38, between Permian Global and Manticore Fuels versus Fuel Automation Station.

As I mentioned I am Judge Dougal. I have with me on the screens Judges DeFranco and Marschall. And we'll start with appearances. When you do so please turn on your mic so that everyone can hear. So who do we have on behalf of Petitioner?

MS. FLANNERY: Good morning, Your Honor. Liz Flannery for Petitioners and Matt Chuning for Petitioners.

JUDGE DOUGAL: Okay. Thank you.

MS. FLANNERY: Oh, I'm sorry. Also I should have introduced Mr. Todd Parsapour. He's the CFO of Manticore Fuels, and from Manticore as well.

JUDGE DOUGAL: All right. And for Patent Owner.

MR. KOZIARZ: Good morning, Your Honor. Matt Koziarz for Patent Owner. And I have here with me Alex Szypa.

JUDGE DOUGAL: Okay. Thank you. All right. So before we begin we'll go over a few administrative matters. We understand that with every case that comes before us both parties have a lot at stake. We take our role as Judges very seriously.

And our current concern is your right to be heard. Please identify yourself each time you speak. When you're not speaking, please mute yourself.

We've reviewed and have the entire record before us.

In referring to your demonstratives, your papers, or exhibits, please do so clearly and explicitly by slide or page numbers. Please also pause for a second to let us find and identify what you're talking about. This also helps us in preparation of an accurate transcript.

Be aware that there may be members of the public listening in on this hearing today.

In our hearing order we authorized 90 minutes per side. Petitioner filed a request which was granted for participation as a LEAP practitioner, which authorizes them an additional 15 minutes, for 105 minutes total argument time. In time we remind Petitioner that the LEAP Practitioner must have a meaningful and substantial opportunity to argue during the hearing.

All right. So any questions before we begin? Petitioner? Anyone?

MS. FLANNERY: None.

JUDGE DOUGAL: Petitioner, would you like to reserve any time for rebuttal?

MS. FLANNERY: Yes, Your Honor. We'd like to reserve 30 minutes.

JUDGE DOUGAL: Thirty minutes. Okay. So let me get this set.

MS. FLANNERY: Yes. I was about to ask if that was going to count me down. Thank you.

JUDGE DOUGAL: So obviously we have a clock up here. This is for your information only. If you want to keep on going into your rebuttal time that is fully up to you. But it will be an indication of just how far you've gone.

And before we get started, you know, you can change as things go on. Let's go on to the patent owner. Would you like to reserve some initial time for rebuttal?

MR. KOZIARZ: Yes. We'd like to reserve 20 minutes, please.

JUDGE DOUGAL: Okay. Okay.

MS. FLANNERY: Your Honor, I apologize. I did have one other question.

JUDGE DOUGAL: Yes. Sorry, just – Hang on a second. All right. Go ahead.

MS. FLANNERY: Just a logistical question, Your Honor. I know in today's hearing we're going to have some pretty long segments of time. I don't know if people are going to need a bathroom break. If either side needs one in between, you know, different people's arguments, how would you like us to go about talking about that.

JUDGE DOUGAL: We have, so we will plan to take a break after Patent Owner does their initial argument. If someone needs one earlier we can probably forego. But we'll make that initial plan and go from there. And so we'll plan on about a five minute break, and be able to alter that as well.

MS. FLANNERY: That sounds perfect. Thank you.

JUDGE DOUGAL: Okay. Great. With that, let's go ahead and get

started.

MS. FLANNERY: Just waiting for my slides to come up here. Here we are.

May it please the Board, I'm going start on Slide 2, which gives a quick road map of where we're going to go in Petitioner's argument today.

First, I'm going to give a brief overview of the three patents that are at issue in these proceedings, the grounds in each of the petitions, and the disputed issues on each of those grounds. So just a quick overview of all of those issues to start.

And then after that we will go each patent in order. We'll go, we'll start with the 805 patent IPR, then we'll go to the 118 patent IPR, and finally we'll end with the 955 patent IPR. That's the patent, the 955, that Mr. Chuning will address with regard to the Board's argument.

So if we move to Slide 4, let's start with the 805 patent. Just a couple of basic statistics. It was filed, its earliest filing date is October 11th, 2016. That is its earliest priority date.

All three patents that are at issue in the proceedings today share that same earliest priority date. All three of the patents also, there's no dispute that the prior art that we have presented in our briefing is prior art to all three of those patents. There's no dispute on the priority dates there.

One common feature of all three patents as well, they all share a common specification. They don't necessarily claim priority, but they do all have that common spec, and that common earliest priority date.

Moving to Slide 5 we'll look at a couple of the exemplary independent claims of the 805 patent. Now every independent claim of all

three patents is directed to a distribution station. And that distribution station in each of the claims has several common elements.

Each claim recites either a mobile trailer or a container. Each one recites a pump on the trailer, manifolds that are connected to the pump, reels that are connected to the manifolds, hoses that are connected to the reels. And then valves that are used to operate fluids going to those hoses.

And then there's also fluid level sensors that are attached to the fuel tank of whatever equipment is being fueled by the system. So all of the claims of all of the patents have those same common elements.

The 805 patent independent claims as we see here have some unique features that are highlighted. The unique feature of Claim 1 of the 805 patent is that the reels are arranged to be on first, on two different sides of an aisle walkway that goes down the middle of the trailer.

And then Claim 17 has the unique feature that it recites that the hoses are deployable from both sides of the trailer.

Moving to Slide 7 we see some claims from the 118 patent. These are exemplary independent claims. And again we see those same common elements that we just talked about with regard to the 805.

The unique feature of Claim 1 of the 118 is that it requires a plurality of flow passages that each run through one of the reels on the trailer.

And then Claim 10 and other claims in the 118 patent include the unique feature that the hoses include a separate tube and sleeve.

Moving to Slide 9 we have the 955 patent. And again, similar common elements. The controller is added. But again, it's common to all of the 955 and I believe the 118 claims.

The unique feature in Claim 1 of the 955 patent is that the reels are connected to be fed from a manifold. That language is unique to the claims of the 955 patent.

Claim 19 of the 955 patent also includes an additional feature, a register between at least one, between a pump and a manifold.

So now we'll go to a quick overview of the disputed issues in the case. Now all of the grounds in all of the IPRs in this case rely on Van Vliet as the primary reference. So if we move to Slide 11 we've got a little summary of the Van Vliet reference.

Van Vliet also discloses a mobile fuel delivery system, similar to what the patents talk about for refueling fracturing equipment. And it discloses all those common elements that we talked about, a trailer, a pump, a manifold, a hose, hoses stored on reels, and fluid sensors.

And there's no dispute that Van Vliet discloses all of those common elements to those claims. That's undisputed.

So moving to Slide 12, when we look and see what we have for each of the grounds of those claims, the 805 claims we combined Van Vliet with Cable for the element of the aisle walkway that's in Claim 1.

And for the elements in Claim 17, having the hoses deployable out of both side walls, we add the AFD reference for that.

And finally, that we'll be talking about in today's hearing, for some of the dependent claims that deal with certain dimensions of the hose reels we add the Coxreels reference for those grounds that deal with those dependent claims.

And there's no dispute in those claims, moving to Slide 13, that the

combination of Van Vliet and Cable discloses the elements of at least Claims 1 through 16 and 18 through 22. There's no dispute about the disclosure. Also, no dispute about what Coxreels discloses with regard to the claims where we use it.

The only disputes that we have with regard to the 805 grounds are the motivations to combine Van Vliet with either Cable or Coxreels.

And then also there's a dispute over whether AFD and Van Vliet disclose that unique element of Claim 17, the deploying hoses out both sides of the trailer wall.

So moving to Slide 14 we have a summary of the grounds of the 118 patent. And again, Van Vliet is used as the primary reference for all of those claims.

And we add Coxreels in Grounds 1A and 2A for plurality of flow passages that run through the reels.

We also add Shoap, the Shoap reference for those claims that require a separate, that the hoses have a separate tube and sleeve.

And again, no dispute that Van Vliet and Coxreels disclose the elements that we rely on them for. The only disputes that we really have is whether or not there's a rationale to combine Van Vliet and Coxreels, or Van Vliet and Shoap.

Moving to Slide 16, a quick summary of the grounds of the 955 patent. Again, Van Vliet is the base reference. And we combine that with Cable for the unique element, the element that requires the hoses, that the reels are connected to be fed from the manifolds.

And we also rely on the LCR I and II references for the fluid register

that's in Claim 19.

And then we rely on the DeFosse reference for certain dependent claims that my colleague will discuss when he gets up to talk about the 955.

And again, no dispute about the disclosure of those elements with regard to Van Vliet, Cable, and DeFosse. The only dispute on those references is whether or not there's a motivation to combine them with Van Vliet.

And then also there is an issue about the disclosure of the fluid register on Claim 19 in the LCR reference. It's, particularly its location. And that's addressed in our briefing.

All right. So let's jump into the 805 patent. And if we, let's see, move to Slide 20, that's a summary of the dispute issues that we're going to address.

And the first one is whether a person skilled in the art would have been motivated to combine Van Vliet and Cable.

So moving to Slide 22 let's take a quick look at Cable. So Cable discloses what's called a mobile lubrication apparatus. And it's a system that's on a van truck that contains hoses stored on reels, as we see there in the figure. And those hoses can be pulled out to dispense lubricants to equipment that is being serviced.

JUDGE DOUGAL: Now, Counsel.

MS. FLANNERY: Yes.

JUDGE DOUGAL: Just a word for the record. The 805 patent is the 2023-01237 IPR, correct?

MS. FLANNERY: Yes. And I will try to remember to do that when

I get to the 118. Thank you, Your Honor.

Now going to Slide 23, continuing on with Cable. Cable in Figure 2 that's shown here on the left shows a top view of those, of the van truck. And it shows those same hose reels, 25 and 26 on the back of the truck that are on either side of a walkway. That's highlighted there in yellow.

And what Cable tells us is that that spacing 22 forms a walkway and storage area there between, allowing a person to walk between the tanks and the driver compartment, towards the back doors where the reels are.

Now the petition asserts that it would have been obvious to combine that teaching of a walkway with reels on either side into Van Vliet's system.

And moving to Slide 24 there are three independent reasons why that would be obvious, given in the petitions. To clarify, each of these reasons is independently enough to combine Cable and Van Vliet.

So if any one of these reasons prevails then the ground has been established, has been proven to, sufficiently for the case.

So let's deal with these in order. The first one is that Van Vliet has an explicit motivation to look to other references for the spatial layout of its equipment. So let's see what Van Vliet actually says on Slide 25.

So Slide 25 shows that Van Vliet has Figure 1 as shown here on the left. And that's a schematic of the interior of the trailer. On the right Van Vliet explains that the physical spatial orientation of all of that equipment in the trailer will be a matter of design choice for the manufacturer, and will depend on space requirements.

Now Patent Owner doesn't really dispute this teaching. Patent Owner, in their arguments they say that we can't really use this because they

cite cases like FanDuel and others that say a person, that say an expert can't use design choice as kind of a substitute or a surrogate for a motivation to combine.

And expert can't just say, well if I have two things that I want to combine I can just say that that combination would be a design choice. And that's what those cases say.

However, that's not the argument that we are making in our petition. In our argument we're saying that the prior art reference itself says that the spatial layout is not specifically disclosed in the reference, but that a person designing the system is going to have to look elsewhere to consider other spatial orientations.

And that use of design choice actually as an express instruction to do so, that's not dealt with in those cases. So those cases are easily extinguishable.

So let's move to Slide 26, and we'll see what the petition says about that. On the left the petition notes that a person of skill in the art would take that instruction that we just saw to go look at other layouts in similar systems.

And in the portion on the right the Petitioner and Petitioner's expert talk about how a person of sill in the art would look at Cable for that, because Cable and Van Vliet include lots of very similar types of equipment, hose reels, tanks for fluids, things like that. And they're also used for similar purposes, to be a mobile system that can transfer fluids in a mobile way.

Now Patent Owner's response to this, and this is shown in Slide 27, is

to point out that there are actually difference, that there are differences between Cable and Van Vliet.

For example, on the left this is Petitioner, I'm sorry, Patent Owner's expert's testimony. Patent Owner's expert talks about how Cable is what's called a, what he called a drivable road vehicle, whereas the Van Vliet system is a towable trailer. So that's one difference that he points to.

On the right he talks about the difference that, well Van Vliet and Cable, while they each have some similar equipment, they also have some different equipment. So he points out the different equipment and he says, well there's equipment of different sizes and shapes.

The problem with this argument is that Patent Owner's expert states these differences, the fact that those differences exist, but doesn't explain why those differences would deter a person of skill in the art from looking to Cable's teachings about spatial arrangements.

Moving to Slide 28, this is exactly the same problem that Patent Owner had at the pre-institution stage. The Board, and the Board in its institution decision recognized that just having different equipment that's used for a different purpose isn't enough to deter a person of skill in the art from making the combination.

There has to be a reason why those differences would matter. And the same issue at institution, and they haven't fixed it in the briefing now.

And moving to Slide 29, Federal Circuit law actually deals with this kind of difference expressly. Federal Circuit in the ICON Health & Fitness case has talked about how when you have equipment of different sizes in two different references, that doesn't mean that a person of skill in the art

wouldn't be able to figure out how to make it work.

In the ICON case, the Federal Circuit specifically held that a person of skill in the art can size different components from one reference to work in another reference.

And that's not something, and Patent Owner's expert just didn't deal with that.

As we're moving to Slide 32, Petitioner's expert actually dealt with the differences head on, and explained why they don't matter. And this is Petitioner's expert's testimony and his initial declaration.

He talked about how, yes, there's a towable trailer versus a drivable vehicle. But from a functional standpoint that difference doesn't matter. From a functional standpoint a person of skill in the art would consider those two things interchangeable.

And so that's why somebody hearing Van Vliet's instruction to look for other spatial arrangements would look to Cable. Because from a functional standpoint, there isn't a difference.

If we go back one to Slide 31, again Petitioner's expert goes on to talk about how in both Cable and in Van Vliet a person, the operator is going to have to access the equipment, like hoses and reels, and they're going to have to access that common equipment from within the trailer, or from within the van truck.

And he observed that an aisle down the middle would be a convenient way of doing that in either Cable or Van Vliet. So again, why those similarities matter is what our expert explained. Patent Owner's expert pointing to differences doesn't refute that.

All right. So we'll move on to Slide 33, which is the second independent reason for making the combination of Cable and Van Vliet. And that is to make Van Vliet's system more easily traversable for operators for things like repairs, maintenance, and physical inspection.

And in the last block that we see here on Slide 33 the petition makes very clear that systems with walkways such as the one taught by Cable would be an effective and simple way to achieve those goals.

Important to note, the petition specifically talks about aisle walkways such as the one in Cable. In other words, it doesn't have to be the exact same walkway that's taught in Cable. It's just a teaching, a concept of having a walkway down the middle that a person of skill in the art would use. That's what the petition says.

Now, moving on –

JUDGE DEFRANCO: Ms. Flannery, this is Judge DeFranco.

MS. FLANNERY: Yes.

JUDGE DEFRANCO: Am I correct that Van Vliet discloses two sets of identical equipment?

MS. FLANNERY: It does. So it discloses –

JUDGE DEFRANCO: And Cable does as well, right?

MS. FLANNERY: Well, Cable is a little bit different. Cable discloses different things on different sides of the walkway. I don't know if the things on the different sides of the walkway are identical. Certainly the hose reels at the back are identical. There may be some differences between the tanks. I'm not sure of that. I'm not sure if it's identical like it is in Van Vliet.

JUDGE DEFRANCO: Okay. But it is identical in Van Vliet?

MS. FLANNERY: Yes.

JUDGE DEFRANCO: Oh, and I say that only because it seems like, you know, two sets of identical equipment in Van Vliet. In Cable it seems to be teaching this walkway between two sets of somewhat identical equipment being the motivation to combine.

MS. FLANNERY: Similar equipment, yes. I think that's probably a fair, that's an accurate characterization of it, Your Honor.

JUDGE DEFRANCO: All right. Thank you.

MS. FLANNERY: No problem. So on Slide 34 we see how Patent Owner attacks the walkway in Cable. They attack the specific walkway that's disclosed in Cable.

And they say that the walkway in Cable would double as a storage area. And so for that reason a person of skill in the art wouldn't consider it acceptable. Because a blocked aisleway would have safety problems.

There's a few problems with that argument. First of all, if we look back at Slide 23. I'm going to try to quickly scroll back. We see that Cable doesn't say that it's aisle walkway is blocked. What it says is Spacing 22 forms a walkway and a storage area. And it specifically says that that walkway allows a person to walk between there.

So Cable does talk about having a storage area. But it never says that the aisle walkway is blocked. That is something that Patent Owner gets from out of the blue. No evidence to support that there's a blockage there.

However, even if we were to assume that this statement of having an aisle, a walkway and a storage area in that same space, 22, or suggesting that

the aisle walkway were blocked, the problem is that there's no reason to think that a person of skill in the art has to bodily incorporate that exact same aisle walkway into Van Vliet.

Patent Owner says they're not arguing for a bodily incorporation standard. And as the petition said, we're just talking about aisle walkways such as the ones in Cable.

And so, there's no reason to think that a person of skill in the art couldn't take one of those teachings and use it to form an unblocked aisle walkway, if that's even required by the claims.

The claims don't specifically require the aisle walkway be blocked either. And so to the extent they're arguing that that's somehow required, it's not in the claims.

JUDGE DEFRANCO: Well, as for Patent Owner's argument then, they seem to be from, I don't think Patent Owner makes it too far with this argument that it's part of a storage area.

As far as the walkway being a storage area, I seem to recall reading the Patent Owner's own device using the walkway as a storage area, or having some sort of hose in the middle.

And just because it may be used as a storage area temporarily, you know, when the vehicle is moving, doesn't mean it's going to be used as a storage area all the time, especially during operational aspects of this system.

MS. FLANNERY: Yes, Your Honor. And that last point that you made about being able to be used for different things at different times, that's specifically, that argument, we made that specifically in our reply brief as well. So yes, I definitely agree with that issue.

Now Patent Owner's response to this is sort of the second piece of their argument, shown here on Slide 34. That, well, you have to consider the parts of a reference that teach a way. You have to consider the reference as a whole, including things that teach for and teach against.

And that's true. But that doesn't refute the case law that's shown on the right. That doesn't mean that we ignore the modifications that a person of skill in the art, not an automaton, somebody who has a reasonable amount of skill would make in making the combinations.

Patent Owner's cases that they cite for this proposition just say that you have to weigh the tradeoffs. But Patent Owner and their expert didn't do any weighing. They just pointed to this as an issue and said it would be a problem.

In the Henny Penny case, which I think is another one that they cite, Henny Penny v. Frymaster case is cited in their surreply. That case is one where the tradeoffs were found to outweigh the benefits of a substitution.

However, that case was very different. In that case the modification that was being made was to take a sensor that was in the primary reference, whip it out and substitute it with a different sensor that was in the secondary reference.

And Patent Owner's expert explained why that would be problematic, why that would decrease the efficiency, and increase the complexity of the system.

Here, remember Van Vliet doesn't, Van Vliet specifically says, go look for other spatial arrangements. Go find something else. So we're not making a substitution here. We're just doing what Van Vliet says to do,

1 look to other references to find a spatial arrangement. That's very different.
2 And again, Patent Owner's expert doesn't do any weighing of the
3 drawbacks at all. They just point them out and say that a person of skill in
4 the art seeing this blocked storage area wouldn't look at it anymore.
5 But we know from the case law that's not what a person of skill in the
6 art would do. They would look at it, figure out ways to make modifications
7 to the extent necessary.
8 And on Slide 35, sorry, getting a little further with that, just showing
9 Petitioner's expert actually did do weighing, and noted that these elements in
10 Cable are simple aisle walkways, known elements to persons of skill in the
11 art. And that a person of skill in the art would have no trouble implementing
12 that teaching from Cable into Van Vliet.
13 The logic of Patent Owner's argument is also based on a false
14 assumption. They also base this argument about a walkway that isn't
15 sufficiently wide on the notion of that it happens when the reels are oriented
16 as in Cable.
17 They always make this assumption that the reels are oriented with the
18 spindles to be perpendicular to the aisle walkway, or perpendicular to the
19 sidewalls of the trailer. That's a necessary condition for this argument that
20 they make.
21 However, as we move to Slide 37, as the Board already acknowledged
22 in the institution decision, this is arguing against Cable individually. We
23 don't use Cable. We use Van Vliet for the notion of lining up the reels along
24 a sidewall.
25 There's no dispute that Van Vliet talks about having aisles, having

1 reels lined up along the sidewall. And so that's the combination that we're
2 using. Arguing about Cable's orientation is not something that we use, not
3 something that the claims require.
4 And in fact, their expert also conceded that Cable's teachings aren't
5 limited to having reels oriented as shown on Slide 36.
6 On Slide 37 on the right, this is his deposition testimony. Dr. Rogers
7 admitted that Cable teaches orienting that spindle perpendicular to whatever
8 direction you're pulling the hose out. And so, in the combination that we
9 have, that would be pulling the hose reel out the sidewall of Van Vliet.
10 And so, it's oriented in a different direction. And there's no dispute
11 that when the reels are oriented in this direction a person of skill in the art
12 would be able to implement that.
13 All right. Just on Slide 39 one comment about the Independent
14 Reason number 3 for combining Cable and Van Vliet. Van Vliet teaches
15 that the trailers that are discussed therein can be used to fuel equipment on
16 both sides of a well at a well site.
17 And so Petitioner and Petitioner's expert note that, well you've got
18 identical equipment, two identical sets of equipment in the Van Vliet system.
19 And so it would make sense to put one of those sets of equipment on one
20 side, other side, on the other side of the trailer, so that you can more easily
21 fuel equipment on both sides of a well.
22 Now Patent Owner's response to this argument is a little different.
23 They argue that while Van Vliet doesn't disclose actually orienting things in
24 that way, and that's not the only way. They talk about, well you could still
25 fuel equipment on both sides of a well even if you have all of the equipment

on one side of the trailer.

That completely misses the argument. The point is that having those things on both sides of the trailer would be one obvious way of doing that. Those arguments have to do with the anticipation grounds. But they don't refute this as a reason why that arrangement would be beneficial.

All right. Next dispute issue in the 805 patent on Slide 40 is Van Vliet discloses the unique element of Claim 17, the notion of having hoses deployed out both sides of the trailer.

And there's no dispute, looking here at Slide 41, that Van Vliet does disclose running hoses out at least one sidewall of the trailer. And Petitioner's expert Dr. Durham testified that because of what Van Vliet says about fueling equipment on both sides of a well, then he believes that that's an inherent disclosure of having the hoses be deployed out of both sides of the trailer.

But even if it doesn't, even if there's a, because there is a dispute on that. And even if it doesn't inherently disclose that element, alternatively, as is shown here on Slide 42, Patent Owner's expert expressly says, alternatively, to the extent that's not expressly disclosed in Van Vliet it would at least be obvious in view of Van Vliet.

And he says, well if you're going to be fueling equipment on both sides of the well, again that would at least be one obvious way of doing it.

Patent Owner's response to this is to say, well that's not the only way of doing it. Patent Owner's expert's drawing I think of how they would propose doing it is shown there on the right in the bottom, that you could fuel equipment out, on both sides of the well out just one side of the trailer.

And that's true. But you've only got, I mean, this sort of establishes you've only got two ways of doing this in Van Vliet. You can be deploying hoses out one side, or you can be deploying hoses out both sides.

And at that point if you've got two options KSR tells us you've got a limited number of options. It's simple design concepts within a POSITA's grasp. Either of those would be obvious.

Patent Owner's expert, or Petitioner's expert actually says that the one that's claimed would be the most obvious. But that's not even required. It just has to be one of the obvious ways of doing it.

JUDGE DEFRANCO: It seems to me that you'd have to have an extra-long trailer if you wanted to use the option on the right of Slide 42.

MS. FLANNERY: That's true. You could certainly have a longer trailer doing that. I'm sure there would be tradeoffs in doing that as well, in terms of driving it down the road as well.

But even assuming that that is correct, that doesn't detract from the fact that you've got a limited number of ways of doing this. And certainly the one that Patent Owner, that Petitioner's expert pointed to is one of those limited number.

And moving to Slide –

JUDGE DEFRANCO: Because one is efficient and one is inefficient?

MS. FLANNERY: And that very well may be. It doesn't have to be the most obvious or the most efficient in order to qualify as obvious.

Moving to Slide 43, one quick note on Claim 18. So Claim 18 depends from 17. And it adds that element that we saw back in Claim 1, the notion of having an aisle walkway down the middle of the trailer.

In the petition we explain that once you have hoses deployed out both sides of the trailer, as in Claim 17, that it would be obvious to arrange them, arrange the hose reels in this manner to have an aisle walkway in between to avoid tripping hazards. And Patent Owner, Petitioner's expert specifically testifies about this.

Patent Owner doesn't dispute this logic at all. They don't present a separate argument as to the non-obviousness of Claim 18. Their arguments have to deal with, well Van Vliet doesn't disclose the elements of 17. It doesn't disclose, and that AFD doesn't disclose that.

But that's not the point. Once you get to Claim 18 you've already got the elements of Claim 17. So if the Board finds that Claim 17 is obvious under any workarounds, then Claim 18 necessarily has to be. Because there's no dispute in the briefs on this point.

All right. On Slide 44 the next disputed issue, whether the AFD reference discloses that same element of Claim 17 that we were talking about.

And moving to Slide 45 AFD is a brochure for an automated mobile fueling system, and has some photos which are shown here on the left hand side of the slide.

And Petitioner's expert explained how these photos show hoses that are coming from openings at the bottom of the trailer on the near side of the trailer, as shown in the version of the photograph on the bottom.

And then it also shows hoses, it's a little bit hard to see. It's easier to see in the briefing. But hoses that are shown sort of laying on the ground underneath the trailer, that are coming from the far side. That was

Petitioner's expert's testimony as to what that would disclose to a person of skill in the art.

Now on the right we have Patent Owner's theory. Patent Owner's expert has a theory that that's not what it shows. He speculates that the hoses that are shown in red on the left are coming from some other piece of equipment that's cropped out of the photograph.

The problem is, there's no evidence whatsoever that, of what that other equipment is, or might be in the photo. Patent Owner's expert doesn't say what that equipment would be, or why a person of skill in the art would think it's there when they're looking at this photograph.

This testimony isn't even expert testimony. This is just a guess. It's not based on any evidence. And it's not based on any technical expertise. And so it's really, it shouldn't be afforded any weight in the Board's decision.

We should only be looking at the evidence. And the only expert in the case that actually relied on the evidence is Petitioner's expert, Dr. Durham.

The final dispute on the 805 patent that I'd like to discuss is whether, is the issue that deals with Grounds 4, 7, and 8, whether a person of skill in the art would have been motivated to combine Coxreels with Van Vliet in Grounds 4, 7, and 8.

And moving to Slide 49 just to sort of set the stage. The Petitioner is very clear that for, that we rely on Van Vliet for the elements of the independent claims that are shown here on the right. In particular the plurality of reels on the mobile trailer.

1 So there's no dispute that Grounds 1 and 5, which are kind of the base
2 grounds that we have here, rely on Van Vliet for the reels.
3 And then Grounds 4, 7, and 8 stem from that. And they add Coxreels
4 only for the elements for the dependent claims, like Claim 11 that's shown
5 here, that relates to the reel diameter and the width of the aisle in the trailer.
6 So with that context, let's move to Slide 51 and see what Coxreels
7 discloses. So Coxreels is a website that we proved up as a printed
8 publication. And it shows an example of a commercially available hose reel.
9 And that hose reel has certain dimensions.
10 We blew up the inset on the right that shows, that labels those
11 dimensions. And so the one on the right that shows looking at the reel kind
12 of from the side, it labels that reel diameter as with a capital L there.
13 Moving to Slide 52 we see what the petition says about Coxreels. It
14 explains that a person of skill in the art would look to Coxreels for
15 information about dimensions of typical hose reels in considering how to
16 design that layout of the Van Vliet system.
17 Very explicitly this does not require using the actual Coxreels' reel,
18 picking that up off the shelf and substituting it into the Van Vliet system.
19 That's not what it's talking about here.
20 JUDGE DEFRANCO: But, Ms. Flannery –
21 MS. FLANNERY: Yes.
22 JUDGE DEFRANCO: Just for clarity. The argument you are making
23 here with respect to Van Vliet and Coxreels, this is equally applicable to the
24 1236 case, or the 118 patent?
25 MS. FLANNERY: Thank you for pointing that out, Your Honor.

Yes. And I think there is some different discussion in the petition. And so when we get to the 118 we will talk about how they discuss these different things.

But yes, a lot of the arguments that we're making here are going to apply equally in both IPRs.

JUDGE DEFRANCO: Thank you.

MS. FLANNERY: So very explicitly the petition does not say that you're incorporating the Coxreels' reel. That we're using information about the Coxreels' reel in the design of the Van Vliet system.

Now Patent Owner cites other portions of the petition not shown here that do mention using Coxreels' reel. But they don't address this basis for the combination.

And as the Board well knows Petitioners are allowed to plead different theories, different, you know, reasons for combining and different ways of combining references as alternatives in the petition.

And so the arguments that Patent Owner made about combining the Coxreels' reel, notwithstanding this, is essentially undisputed. There's no reason that they give as to why a person of skill in the art wouldn't look at information.

And that becomes very clear when you go to Slide 53. This is the Table of Contents from Patent Owner's response where they attack the use of Coxreels. And all of these attacks, they don't have anything to do with using dimensions from the Coxreels reference.

First, Patent Owner argues that Coxreels isn't advertised for fracturing or automated fueling delivery. But there's no dispute that Coxreels qualifies

as analogous art under the -- test. They don't dispute that at all.

So if it qualifies as analogous art it's not clear just because it has different uses why a person of skill in the art wouldn't consider it. In fact, KSR says you can use prior art used for different purposes in combining it for obviousness.

And then the other arguments that Patent Owner makes have to do with Coxreels having certain materials that would be undesirable for fuel, or that it would require undesirable operating pressures if those reels were used in Van Vliet.

But again, those arguments only apply if you're physically substituting that Coxreels' reel into Van Vliet's system. And certainly that's one way of doing it. We're going to talk more about that when we get to the 118 patent. But that's not the only way that either petition talks about using Coxreels.

Now just as sort of a caveat. And this sort of goes along with Judge DeFranco's comment. To the extent that the Board does believe that the grounds require making that physical substitution, we also proved why that physical substitution would be obvious. And that's discussed in our briefing in the 805 reply.

It's also discussed in the 118 reply. And I think it makes more sense to address there. So I'm actually going to address that physical substitution issue in the 118. And we'll waste no time getting there.

So Slide 54, moving to the 118 patent. One quick note on Slide 55. So we have Ground 1 that argues that the Claims 1 through 3 are anticipated or obvious in view of Van Vliet.

We're going to leave that argument to the briefs. We're not going to address Ground 1 in our argument. And we're going to focus on the other grounds in our petition. But we're not waiving it. We just want to leave that to the briefs.

JUDGE DEFRANCO: Understood.

MS. FLANNERY: Great. So moving to Slide 56, summary of the dispute issues. And the first one there is whether a person of skill in the art would have been motivated to combine Van Vliet and Coxreels, as in Ground 1A and 2A.

And again, just to level set, Grounds 1A and 2A expressly rely on Van Vliet for the reel element. So the Claim element 1B and the similar element of Claim 15 for the plurality of reels, we always rely on Van Vliet for those reels. And there's no dispute about that.

The petition only relies on Coxreels for the next element, for Element 1E, which is the one we saw highlighted before, the flow passages that then run through the reels. And again, there's no dispute that Coxreels does in fact disclose having a fluid passage run through the reel.

So moving to Slide 59 let's see how the petition talks about making that combination. On the left the petition talks about how a person of skill in the art would have looked to commercially available reel components like those described in Coxreels.

Again, not just talking about the Coxreels' reel itself. But looking to Coxreels, that publication as an example of what's commercially available.

And on the right, again that similar language that we saw in the 805 petition, talking about referencing information about commercially available

hose reels. And that's what a person of skill in the art would be using Coxreels for to design the system.

And again, in the 118 patent, Patent Owner doesn't really respond to a lot of the statements in the petition. They focus on other aspects of the petition that talk about using the physical, the actual Coxreels' reel.

But again, as we talked about before, perfectly permissible to first tag alternative theories. And this theory is enough to establish obviousness.

I'm going to move a little bit to Slide 62. Because this is where our expert, Dr. Durham, talks about the teachings, the information from Coxreels that he uses.

And he talks about how this arrangement that's shown here on the left, this notion of having fluid come through the inlet, and then come out what's called a low profile outlet riser and open drum slot design. That's the sort of opening that's coming out the spindle there.

Dr. Durham says that that arrangement specifically, that arrangement of having that flow passage, that was a common and well known arrangement of hoses and reels at the time of 118 patent.

So again, he's not saying in that sentence that the Coxreels' reel itself was well-known. I mean, it was known, to the extent it was in a publication. But what he's emphasizing here is that that flow path that it talks about was a commonly known arrangement.

And then on Slide 60 he talks about how that particular arrangement of a flow path has advantages that a person of skill in the art would have recognized. They would have recognized that that low profile outlet riser and drum slot would help the hose wrap flat on the spindle without crimping

when you're reeling it up onto the reel.

So that's all in the petition. Patent Owner doesn't really address that in their response.

Now moving to Slide 63, we have an alternative for our argument. We do have the argument in the petition that using the Coxreels' reel itself would have been obvious in Van Vliet. And the petition explains why that would be so.

It talks about how that reel, the Coxreels' reel itself was a readily available alternative suitable for use in Van Vliet. And it's not on this slide. But it's also in the petition on Page 36. The petition further explains that Coxreels' reel would be "a cost effective and readily available option, e.g. as compared to a custom made reel."

So in other words, he explains there that that readily available, commercially available alternative would be more cost effective, cheaper than building a custom reel. So that's the rationale there for using that off the shelf reel if that's what a person of skill in the art wanted to do.

Now Patent Owner argued in their surreply on Pages 8 through 9 that Dr. Durham's testimony on these points was too conclusory. It wasn't enough.

First of all I'd note that that was a new argument in the surreply. They had not presented that argument with regard to Coxreels in their Patent Owner response. All they, they didn't challenge the sufficiency of this rationale. They just talked about why Coxreels' reels wouldn't have been suitable. So they shouldn't be allowed to present that new argument in a surreply.

It's also wrong. The Petitioner and Dr. Durham specifically explain on Page 36 of the petition that it would be more cost effective to use a commercially available reel.

I will concede that that is a simple, it is certainly a simple reason to make the combination. But it's not conclusory. Cost reduction is a commonly cited basis for making obviousness combinations. And they don't dispute that it would be more cost effective than building a custom reel.

So moving to Slide 64, the surreply tries to attack this by citing deposition testimony from Dr. Durham. And they try to make it sound like he backed off of this position. That he somehow said that it wouldn't have been obvious to use a Coxreels' reel in Van Vliet.

If you look at the full context of the testimony their argument is incorrect. What's shown here on the left is the deposition testimony that they cite in their reply, where Dr. Durham was asked, it's not your position that it would have been obvious for a POSITA to incorporate a specific Coxreels' reel. And they cite his answer as, right.

Well they forgot about the rest of the answer. If we look at the transcript shown on the right, he did say, right. That was sort of happening at the same time as I was making my objection to the question.

And, but the full answer is, right, although they certainly could. That's not the goal of that portion of this testimony. So he was very clear about the fact that that still might be an option. It just wasn't what he was dealing with at that particular time.

And as further context, if you look at the questions that immediately

precede that testimony that they were talking about, it's clear that Dr. Durham understood in the highlighted portion, that he understood those questions as they're asking about the Coxreels' reel as asking about specific model numbers. That's what he said he understood that they were talking about in those questions.

And so when you consider that immediately preceding context it's clear that Dr. Durham was understanding that previous question that we looked at on Slide 64 as asking about a specific model of Coxreels' reel.

So that's clear from the cross examination testimony. But he also clarified that on redirect. And that's shown on Slide 66. He explained on redirect that when he was asked that question he understood the question to be asking whether there was a specific model that he picked.

And he said, no. He didn't pick, you know, one model or the other out of Coxreels to use. His view was that any of the models would work in one model or another of the Van Vliet system. It would depend on, you know, choices that a POSITA would make. But any of those reels could potentially be used.

JUDGE DEFRANCO: Ms. Flannery, is this testimony that you're speaking of, is this the testimony that is the subject of Patent Owner's motion to exclude?

MS. FLANNERY: Sorry, Your Honor. Yes. That is subject to that motion. Would you like me to discuss the merits of that motion?

JUDGE DEFRANCO: No. You don't need to. You've explained, you've clarified what is going on with the testimony in the context of the deposition. So I think that's enough.

MS. FLANNERY: Okay.

JUDGE DEFRANCO: And I think it all goes to weight anyway.

MS. FLANNERY: Yes. I think it all goes to weight. And for what it's worth, and I think we point this out in the motion to exclude. I mean, you can understand that context if you look at the slides, at the testimony that we cite on Slide 64 and 65, which are not subject to any motion to exclude. That was part of their examination.

So the redirect examination really just clarifies what was already shown on the record, in my view.

JUDGE DEFRANCO: I understand. I agree.

MS. FLANNERY: Understood. So moving to Slide 67 we see the arguments that Patent Owner's response did present. And the bulk of Patent Owner's arguments argue that the Coxreels' reel wouldn't have been, would have been unsuitable for Van Vliet's system for a variety of reasons.

Those arguments focused on certain alleged drawbacks of the Coxreels' reels, like the materials that are used in them, and the operating pressures that would be needed.

If they were used on the left, this is in their surreply, Patent Owner stated that the drawbacks of those things would outweigh whatever unidentified -- they said unidentified, we had identified them -- whatever benefits there are of using the Coxreels' reel.

Important to note that here in the surreply they don't cite any expert testimony whatsoever. This is pure attorney argument. Patent Owner's expert didn't chime in on this at all.

It's not clear that Patent Owner's expert did any weighing of

drawbacks versus benefits. He just, he pointed out the fact that there would be drawbacks. But he didn't weigh them against any benefits.

And on the right we see what I think we could probably all understand as a matter of just practical reality, tradeoffs and downsides are a part of any design decision.

But the fact that there are tradeoffs that exist does not rebut a motivation to combine. And that's the Corephotonics case that we cited.

But moving to Slide 68, even Patent Owner's own cases, that Henny Penny v. Frymaster case noted that yes, there are drawbacks. But the benefits, both lost and gained, have to be weighed.

The only expert that actually did any weighing of these alleged drawbacks in Coxreels is Petitioner's expert., Dr. Durham. And on Slide 69 we sort of summarize, and this is all discussed in further detail in the replies, as to how every single one of the drawbacks that Patent Owner pointed to aren't supported by the evidence, or they would be outweighed. Or a person of skill in the art would not consider them to be disqualifying.

For example, just taking an example. That first one, the extreme cold that Patent Owner said would cause the AFLAS seal to break. Dr. Durham pointed out that there is no evidence whatsoever that inside the trailer where those reels exist it would actually get cold enough for that to happen.

Based on POSITA's understanding of how these systems work, there's no evidence that that would be an issue. So that's just one example. And he does that with all of the other arguments as well.

The ones that are shown at the bottom there, starting with the three hoses, those all had to deal with Patent Owner's pressure model. They had

their expert do some calculations as to the operating pressure that would be needed if you used the Coxreels' reel. And he asserted that I think you'd need 440 PSI pressure pumping in order to make the system work.

As we talked about in the surreply the evidence that Patent Owner presented didn't even support that number. So I'm not sure that the evidence actually supports it.

But even if it does, Dr. Durham explained how that model relied on numerous assumptions about the Van Vliet system that were not supported, and in many cases contrary to what the evidence said.

I won't go through all those arguments in detail because the surreply kind of backs away from them. But the point is that all of those assumptions are either unsupported by the evidence, or at most, even looking at them most favorably, are simply plausible edge cases.

But the problem with that argument is that obviousness doesn't require, even if it requires weighing drawbacks, it doesn't require designing a system to work in every plausible edge case, every conceivable use under any conceivable condition that might come up.

And to be clear, the concern for safety that Patent Owner highlights in their briefing doesn't change this. Because there's no evidence, again, that these systems have to be designed to be safe for every conceivable circumstance. That's not necessarily how a person of skill in the art would view this.

Dr. Durham explained in his supplemental declaration that even with safety in mind, a person of skill in the art might choose to tailor their systems be safe for a particular use, or a particular region of use, or a

1 particular scope of uses.
2 And in fact, yes, they might weigh how much it would cost to make
3 that system more suitable for use for, you know, more broad uses. But
4 that's, again, part of that design tradeoffs that would be weighed.
5 And the only testimony on that weighing is Dr. Durham's, where he
6 says that a person of skill in the art would consider those things. And they
7 would tailor their system to be safe. And they would consider the fact that,
8 again, that Coxreels' reel, not being custom made is going to be more cost
9 effective, and going to be safe for a large number of uses.
10 And so that tradeoff is on that a person of skill in the art would make.
11 JUDGE DOUGAL: Counsel –
12 MS. FLANNERY: Yes.
13 JUDGE DOUGAL: Can you clarify, you mentioned previously about
14 how, you'd have the position of the general teaching of Coxreels with Van
15 Vliet. So for the independent claim with that example do we need to get
16 specific features that Coxreels --
17 Are these two totally separate arguments, teaching generally or
18 pulling off the shelf reel from Coxreels? Or is it more of a hybrid where,
19 you know, we can rely on the general teachings for most of the things. But
20 we kind of need some of the specific mentions or features from Coxreels to
21 get the entirety of the Claims.
22 What – actually, just clarify the position a little more.
23 MS. FLANNERY: Yes. I think I understand the question. The
24 dichotomy there of the teachings versus the reel. We are using a specific
25 teaching.

And it's the specific teaching of the idea of having a flow passage. And we talked about that in the previous slides, that arrangement that Coxreels teaches would have been obvious.

That's what we talk about when we talk about the teachings; we're talking about that feature. And I don't think in Coxreels for the 118 patent we're relying on other things. I don't think we're relying on other aspects for that.

So the teachings generally, I would quibble with that a little bit. And I would say that what we're really relying on is the teaching of the flow passage, and then on the -- in the alternative theory then you just sort of take the wholesale thing off the shelf and use that.

And we show how both of those are obvious. But again, either one of those combinations would support the ground.

JUDGE DOUGAL: Okay. Thank you.

MS. FLANNERY: Yes.

JUDGE DEFRANCO: So just to follow-up. So those are alternative theories. And as far as the unsuitability arguments that you highlight here on Slide 67, those really go to the physical substitution of Coxreels into Van Vliet. Those suitability arguments relate to your alternative theory of physical substitution, not necessarily your theory of Coxreels' overall teaching of incorporating a built-in flow passage, so to speak, into a reel.

MS. FLANNERY: That's correct, Your Honor.

JUDGE DEFRANCO: And your primary theory is relying on Coxreels for a built-in flow passage.

MS. FLANNERY: For that teaching. That's correct. And I –

JUDGE DEFRANCO: Okay.

MS. FLANNERY: -- say that because this is the only argument, these unsuitability arguments, these are the only ones that they presented in their Patent Owner response. So we certainly address them. We wanted to address those, and not just rely on that first theory.

On the first theory, I'm not sure what they're response is that they can present here. They have some arguments in their surreply that we didn't make that clear in the petition. I think the slides play out how we did make that clear in the petition. They just didn't respond.

JUDGE DEFRANCO: Yes. I mean, that's an interesting question the Panel is going to have to address is, what is the response to that initial theory that you pose, that Coxreels teaches, you know, a built in flow passage.

MS. FLANNERY: Yes.

JUDGE DEFRANCO: And you're, that's what you're relying on Coxreels for. And then there's the alternative theory later on, which seems to be addressing, which seems to be Patent Owner's unsuitability argument. Okay. Thank you.

MS. FLANNERY: No problem. So I want to just address one brief point, because I want to leave Mr. Chuning 20 minutes to deal with the 955 patent. I want to address one point on Grounds 2, 2A, and 3, which deal with the combination of Van Vliet and Shoap.

Just want to make clear, so Shoap is the reference that we rely on for a hose, a wired hose that has sort of an integrated, a one piece hose that has a tube and a sleeve around it.

Admittedly, this on its own doesn't meet the claims. But Petitioner

1 talks about how it would be obvious to take that arrangement and make it a
2 separate tube and sleeve, using commercially available off the shelf
3 components.
4 The motivation to combine this with Van Vliet, discussed in the
5 petition at Pages 44 through 45, is the Haile reference. Now to be clear
6 Haile is not prior art. We're not saying that it is, that it's prior art to the 118
7 patent. Based on its filing date, it doesn't qualify as prior art.
8 However, it does very clearly qualify as contemporaneous art. And so
9 we rely on it in the petition as evidence of level of skill, specifically because
10 it talks about using a wired hose like what we saw in Shoap for a mobile
11 fueling platform.
12 Patent Owner makes an argument that all of these wired hoses aren't
13 going to be safe. And Shoap admittedly doesn't deal with fueling. It deals
14 with other types of irrigation systems. But Haile very clearly says that using
15 a wired hose like what you have in Shoap would be safe in a mobile fueling
16 system. And so that's what we rely on it for.
17 Patent Owner didn't respond to this in their response at all. They tried
18 to respond in their surreply. That was a new argument in their surreply. I
19 believe they had made that argument in their preliminary response, their
20 popper. But case law is very clear, as we have discussed on Slide 74, that
21 they're not allowed to sort of resurrect a pre-Institution argument in a
22 surreply.
23 That's also clear from this Board's order. This Board's scheduling
24 order, which I believe is Paper 12 in the 118 patent IPR, which is, again, for
25 the record, which is IPR12 -- let me get that number -- 1236. Just wanted to

make sure it's clear for the record.

In the Board's scheduling order, the scheduling order in setting the deadline for the Patent Owner response, specifically says, quote, Patent Owner is cautioned that any arguments not raised in the response may be deemed waived. This is a common matter of practice at the Board. And it was noted in the Google case that's cited here.

JUDGE DOUGAL: Counsel, we have kind of a unique situation here in that we -- this demonstrates the fact that we considered the claim in a way that didn't entirely fit with the original grounds of the petition. And so Patent Owner, with their response, I think didn't exactly know how you were going to come back and deal with that claim construction, which I believe went to some pending claims that have a little bit more detail.

So, I guess, that's why we are -- explain to me, you know, why this doesn't matter, or why would you still apply those rules. Or maybe I'm totally off the mark completely. Can you address that a bit?

MS. FLANNERY: I see your point, Your Honor. I do think that the petition makes very clear, because we did sort of anticipate the notion of having a separate tube and sleeve.

The petition does talk about the notion of it if you wanted to take Shoap and have a separate tube and sleeve you could do that. But here, this is talking about the base combination that's in the reference, just having the combination of a wired hose in a fueling system. And that didn't change with regard to claim construction. And the claim construction had to with the separate tube and sleeve. So I actually don't think that the use of Haile changed with regard to the claim construction.

However, even if the Board wants to consider the argument, it's wrong. Because all they say is that Haile isn't prior art. Again, we never said it was. We were relying on it as level, as evidence of level of skill in the art. And the case law clearly blesses that kind of use.

I am going to leave the rest of the time to Mr. Chuning to deal with the 955 patent.

MR. CHUNING: Thank you, Your Honors. Matthew Chuning for the Petitioner. May it please the Board this is an initial matter. This is in regards to the 955 patent, which is IPR202301238.

And let me go ahead and start on Slide No. 80. And what we have here is taken straight from the petition. We're looking at the summary of the grounds from the petition.

And I just think as kind of a initial housekeeping matter I kind of what to address what we're going to talk about today. And so, we see first of all that we have Grounds 1 and 2 that use the same prior art that we've been discussing for most of the day, Van Vliet. And we have Van Vliet and Cable.

There are going to be some arguments for the 955 that overlap with arguments that we've already made with respect to, for example the 805 patent. And those arguments are in the briefing for the 955 patent.

But we're not going to kind of re-tread ground. We're going to focus on those arguments that are unique to the 955 patent. But those arguments are in the briefing for the 955 patent. And we're relying on them there.

And in particular with respect to Ground 1 we are going to rely on the briefing for that. Once again not waiving those arguments, but going to rely on the brief for that.

We're going to see a disputed issue that does arise with respect to Ground 2. We'll see that on the next slide and we'll discuss that.

With respect to Grounds 3 and 3A, once again, you know, Liz kind of previewed at the very beginning of our presentation that the LCR I and LCR II references are teaching. And what we're relying on them for is this teaching of a fluid register.

And in particular there is a dispute about where that fluid register falls. But we are going to still rely on the briefing for that. We think that it covers it sufficiently.

And so the second argument that I will talk about today is going to be with respects to Grounds 4 and 4A, which is the combination of Van Vliet and DeFosse. And I'll go into more detail with that when we get there.

JUDGE DOUGAL: Counsel, I will mention that the LCR arguments I think are a little more interesting arguments in this case. So you can argue them. But I'm really interested in what Patent Owner has to say about them. And if you want to take that up before, it's up to you.

MR. CHUNING: Okay. Thank you for that, Your Honor. So I'm going to start off, we're on Slide 81 now, where we're talking about the dispute issues. And so, like I said I'm really going to focus on these first two arguments.

And I think the things to kind of hit on initially about these two arguments is kind of head out what are the disputes? The first one is this

combination of Van Vliet and Cable. And that's the first one I'm going to talk about.

And what we're talking about there is once again not an argument about what is disclosed. We're going to talk about whether a POSITA would be motivated to combine Van Vliet and Cable, and specifically how Patent Owner has responded to our arguments and evidence of what that motivation to combine would be.

And then B is of course the second one that I'm going to talk about, which is the combination of Van Vliet and DeFosse. And once again there is not any dispute about what the disclosure is. It's merely a dispute about whether there would be motivation to combine.

So starting with our first argument, the combination of Van Vliet and Cable. I think probably the easiest place, always want to start with what is not in dispute. So, you know, what do we have with respect to this argument that is not in dispute.

And I think it's the thing I've kind of already previewed, that there is not a dispute that Cable teaches a reel that is connected to be fed.

And if you take to one of the evidence that we point to in the petition is that Cable has a subscription of a conventional reel rotatable coupling. You see in the parenthetical we identify that as also being called a swivel joint.

But there's no dispute that this meets the limitation of the connector to be fed that we showed in the claim.

And in terms of why it's called a swivel joint, I think in a few slides we're going to get a picture of it. And I think it will be pretty obvious why it's called a swivel joint. And we can look at that.

Once again, Patent Owner's argument is that it would not be obvious to combine Cable's teaching of this conventional component with Van Vliet. I really want to emphasize that even Cable, you know, kind of at the outset, identifies this as a conventional reel rotatable coupling.

Moving on to Slide number 84. So what did the petition say about this? You know, we've already looked at, you know, one example of that. What else does it say?

Well, it talks about how we're going to incorporate, you know, certain elements from Cable into Van Vliet. We talk about how these elements were simple, well known in the art. And one of those that we have underlined in red here is the reel configuration.

And we say that the reel configuration from Cable could be incorporated into Van Vliet's mobile fuel delivery system. And that would merely involve combining prior art elements according to known methods to yield predictable results.

And the reason I'll read that last in here is because this is actually an argument that's already been taken up by the Board at the institution decision at 14.

That's the line that was kind of highlighted for this particular element as providing that motivation to combine, identifying that in the petition. And we believe that the Board rightly recognized this motivation to combine Van Vliet and Cable.

And you're going to hear me say it I think a couple of more times after this. But once again, we're talking about Cable's conventional reel rotatable coupling, combining that into Van Vliet.

So we just talked about how the petition talks about it, and what the petition says about this combination. Well, this was clarified even more clearly when Dr. Durham gave his deposition.

And so when he was asked a question, what reel configuration from Cable are you incorporating into Van Vliet? So if I back up one, you know, this is the reel configuration from the petition. You know, Patent Owner asked this question, you know, what are you talking about when you say reel configuration?

And Dr. Durham said, well there's several things. He said, one, to the extent that Van Vliet doesn't disclose a reel with an internal fluid path, we get that from Cable.

And that internal fluid path is the same thing as this conventional reel rotatable coupling. Because that's how the hose is connecting. And then that's what the fuel is flowing through as it goes to the hose.

So once again, this is made crystal clear both in Dr. Durham's testimony and in the petition, what we are talking about.

And one thing to emphasize here, you know, Liz made this point earlier. Pardon me, Ms. Flannery made this point earlier, about how, like what are we combining, you know?

Throughout the slides, you know, we rely on Van Vliet for the reel teaching. But we're taking this additional teaching for this limitation from Cable.

So we're taking this idea of connected to be fed in Ground 2. You know, we would argue that it's also disclosed by Van Vliet alone. But in Ground 2 we're taking this idea from Cable and we're combining it with Van Vliet.

And Van Vliet already has a lot of these ideas. And we would argue it has all of them. But Cable specifically teaches this conventional reel rotatable coupling.

I've gone back to the petition now. And this is the petition at Page number 38. And we are on Slide number 86. So, you know, I talk about how Cable says that this is a conventional reel rotatable coupling.

Well, you don't have to take Cable's word for it that this was a conventional component. Because the petition kind of takes it a step further and points out that these were commercially available well known components.

And we don't just say that. We provide evidence of it. And we give two examples. We provide the evidence of the Husky Fuel Swivel. And we provide the Coxreels reference that we've talked about previously.

And so even beyond the motivation to combine, you know, that was specifically identified in the institution decision, you know, this combining these well-known elements, we have this additional evidence in the petition that talks about how these are commercially available and well known components.

You know, Ms. Flannery talked earlier about how commercially available, the motivation to combine that that provides. That while it is a

perhaps simple motivation to combine, it is an absolutely valid one. And I think a pretty powerful one as well.

So the purpose of this slide is just to highlight that in the petition from the very get go we presented in multiple examples. You know, Cable on its face says that this is a conventional component to add. We provide two examples, Husky Fuel Swivel and Coxreels in addition to what's described by Cable.

And just one more thing, just to be clear, you know, Ground 2 is not relying on the Coxreels reference. And it's not relying on the Husky Fuel Swivel reference. These are just once again providing context and kind of background information supporting, you know, Cable's statement that this swivel joint, this conventional rotatable reel coupling was well known and commercially available.

So I just want to be clear that we are not relying on these as prior art for this ground themselves. We are relying on the Van Vliet Cable combination.

I've now moved on to Slide number 87. And what we're looking at on Slide number 87 is the excerpts from these two examples that were provided in the petition.

You know, we've got Coxreels, you know, talking about how it's got a swivel, you know. It's got the NPT swivel inlet. And then on the right we have Exhibit 1016, which is the Husky Fuel Swivel.

And what I've highlighted here I think will be somewhat significant in just a few moments when we talk about what Patent Owner's arguments are, is a excerpt from the Husky Fuel Swivel.

For example, that first line says that it's compatible with unleaded diesel and ethanol blends through E10. So it specifically mentions being applicable to diesel fuel.

And once again, even though I'm showing these two examples as exhibits on the slide, the combination that we're talking about is Van Vliet plus Cable. These are being used to show that this teaching was commercially available and well known.

So, so far I've talked about what the petition has said. I've talked about what Dr. Durham said about this combination. Now let's talk about how Patent Owner responded to this.

And what I've put up on the screen right now on Slide number 88 is an excerpt from Patent Owner's response at the Table of Contents. We can kind of see how they structured their argument.

And what I'll say first is that the first argument that they make under A, they fail to articulate a rationale or motivation for modifying Van Vliet with a reel of Cable.

What Patent Owner says here is basically that, they cite the Virtek case. And what they say is that basically we don't give any rationale or motivation to combine at all.

But what Virtek actually says is that you can't collapse down the analysis. You can't just rely on the fact that something is disclosed in order to say that it would be obvious to combine.

But that's not what we do here. And I think that's what the previous slides have kind of gone through and demonstrated, is the petition provides

kind of very explicit motivation to combine. And kind of gives these reasons for why this teaching would be relevant.

So, you know, I think we, how we disagree both with Patent Owner's assertion that we didn't articulate a rationale or motivation to combine, and with its citation to the Virtek case.

The next three I think are interesting through. Because the next three, you know, I've kind of gone to great pains. I said multiple times how, what the combination that we're talking is Van Vliet with Cable.

But the next three are all focused on Coxreels, which is one of the two examples that we get here. You know, certainly we use Coxreels as one of those example to kind of give, teach how this thing was commercially available. And that it was well known in the art.

But the combination that we put forward was Cable plus Van Vliet. And these first three only address Coxreels.

To the extent that they are relevant, because Coxreels is one of the examples that we gave, they don't address the Husky Fuel Swivel at all, which is the second example we gave.

And the reason that I highlighted earlier the Husky Fuel Swivel, kind of specifically in that reference highlighted its use with diesel is that some of these, that's the argument that they're making with respect to Coxreels, is they're saying that you wouldn't use Coxreels in a diesel environment.

But they didn't ignore, they ignored the other example that we gave, which is the Husky Fuel Swivel, which specifically calls out that use case.

1 And so we're kind of two ships passing in the night where for at least
2 these three arguments what Patent Owner is doing is not really even
3 addressing the basis of our rationale and motivation to combine.
4 It's a similar story for the last two kind of under this section for
5 Ground 2. So what we see on B and C, these arguments that Patent Owner
6 makes are almost exclusively dealing with those reasons that we talked
7 about with respect to the 805.
8 They don't deal at all with the swivel joint of the reel that we're using
9 for this particular ground that we're talking about here. These only apply to
10 those arguments which also apply to the 805. And Ms. Flannery already
11 discussed those. And the same reasons apply for why those don't make
12 sense.
13 And the other thing I would say here is that these, our response to
14 these is in the briefing. Like, we do address these, the 955. But I'm not
15 going to spend any more time on them because they're the same arguments
16 that we've already seen.
17 The important thing to note is that they don't deal with the swivel
18 joint that we've been discussing so far.
19 And moving on to the next dispute, so I'm Slide number 90. The next
20 dispute that I'm going to discuss is that a POSITA would have been
21 motivated to combine Van Vliet and DeFosse.
22 And so a lot like we've been talking about and what I just spoke about
23 with respect to Van Vliet and Cable, the dispute here is not one where Patent
24 Owner is disputing that DeFosse discloses the limitation. It's, they're
25 merely disputing whether there would be motivation to combine.

And so I'm on Slide number 91 now. What does DeFosse say? What is DeFosse about? Well, DeFosse is about moving fluids around a frack site. You know, specifically it talks about, you know, blending the different frack fluids. But it talks about you're at a frack site, and you're moving fluids around using pumps.

On Slide number 92 we can kind of see what the disclosure of DeFosse is and what the claim requires. And so what I've done on the left as you can see, Independent Claim 11 with Dependent Claim 13, which is the only claim that this ground applies to is this Dependent Claim 13.

I've highlighted that what is required is that the two pumps are arranged in fluid series. And then we turn, this is in the 955 patent at Claims 11 and 13.

And then if we move to the right what we have is the petition at Pages number 20 and 21, where we can see an excerpt of DeFosse, which shows two pumps arranged in fluid series.

Once again I think it's helpful to start where there is no dispute. And there is no dispute as DeFosse discloses the two pumps arranged in fluid series limitation.

And then we also provided a reason to combine Van Vliet and DeFosse in the petition. This is on Slide number 93, which is quoting the petition at Pages 58 and 59.

Here we say the POSITA would have been motivated to use two pumps in series to produce sufficient pumping capacity, to use two smaller pumps that would individually fall below the necessary pumping capacity,

and then take advantage of fast startup for protection from cavitation that such a system would provide.

And then we also, you'll see, are going to see on the next slide, cite to Dr. Durham's declaration where we provide additional reasons. And so I've kind of listed those here. I won't read them off, because this is also in Dr. Durham's report.

But Patent Owner's critique of this dispute, or what they argue is that we simply don't provide any motivation to combine, and that we don't, Dr. Durham doesn't cite any literature.

But Dr. Durham goes on for, what is it, seven paragraphs here, kind of going in detail, giving explicit reasons as a POSITA why a POSITA would combine the teachings of DeFosse with Van Vliet.

And Patent Owner doesn't provide any rebuttal to that, or really respond to it, other than just --

JUDGE DOUGAL: Can you answer, explain to me whether this is enough. You guys have one sentence, right. And you state oh, your expert goes on for seven paragraphs, right, discussion. None of that is in your petition, right.

So is this sentence enough to, is this further explanation on the points that you've made? Or is this trying to incorporate by reference entirely different arguments that weren't in your petition?

MR. CHUNING: Yes. Thanks, Your Honor. So, there are I believe, these two reasons that we give here in the highlighted portion on the left, this reason about having sufficient pumping capacity, and also having fast startup and protection from cavitation. So I guess those three reasons.

Those are absolutely elaborated on in what Dr. Durham talks about. So that's just kind of additional reasons. So those are at least, you know, and I think we can actually see how many paragraphs those apply to.

So the cavitation of the pumps, that's Paragraph 244. The, allowing the pumps to be smaller, which you also see there on the left is at Paragraph number 248. And then the cavitation I think also falls under that.

So it's just an elaboration there. But we certainly provide reasons in the petition that are then further supported by Dr. Durham. Dr. Durham does go into additional detail, I think. You know, it's all dependent about how you divide up what is a reason, and kind of what is kind of supporting.

But he provides what I think you may be could divide up in to additional reasons. But certainly he is elaborating on the ones that are in the petition that you see on the left, and that we talk about.

And Patent Owner's only response is that, you know, he doesn't cite any literature on this. But he is a POSITA. And he's giving his opinion as a POSITA. And they don't dispute the substance of what he's saying at all.

JUDGE DOUGAL: Thank you.

MR. CHUNING: Thank you. And I believe that is my presentation. Thank you for allowing me, Your Honors, to participate in the LEAP program. And I appreciate the opportunity. Thank you.

JUDGE DOUGAL: All right. Thank you. You have 30 seconds left.

MS. FLANNERY: We'll save it for rebuttal if we can.

JUDGE DOUGAL: All right. Patent Owner, you can proceed whenever you're ready.

MR. KOZIARZ: All right. Thank you, Your Honor. I'm going to begin on Slide 2. Just like to make a brief opening statement to flag a couple of key points to keep in mind about our presentation.

These patents all relate to automated refueling systems, as Petitioner has described. Those are used on well sites such for fracking. And they're used to automatically refuel equipment such as the frack pumps.

So the first of the points up here are safety and reliability. You can see the photo on the right, which is from Exhibit 2012 where there are safety concerns that can result in some pretty serious incidents, fires, personal injuries, and that type of thing.

And so for that reason I think it's undisputed in all these cases that safety is really a chief concern here. It's always something to keep in mind. And when Patent Owner developed this technology for the three patents at issue here, it did that with safety concerns in mind.

So for example, the ability to safely deliver fuel to the frack pumps depends on reliable communication between the fuel level sensors and the controller that's inside of the trailer. And that controls the opening and closing of the valves for fuel flow to the hoses.

So those sensors need to be in contact, sending signals back to that controller in order to know the instant fuel level in each of the tanks of the frack pumps. Loss of that communication can result in some pretty serious concerns.

For example, where there's a fuel, low fuel level condition in one of those tanks, if communication were to break down the system wouldn't be able to identify a need to refuel. And in that case there might be an

interruption of the frack pump operation.

In a high level condition in the tank of the frack pump, if the system can't identify that it won't know to stop the refueling. And that could result in overflow and spill of fuel.

So both of those conditions can lead to some potentially highly undesirable situations.

Patent Owner has developed a couple of technologies here to address some of those safety concerns. One is more reliable communication from the sensors to the controller by hard wiring the sensor wires with the hose.

They developed a routing of those hoses with, a routing of those wires with the hoses back into the trailer. And that goes through the wheels in the trailer, which serve as a junction where the wire then departs from the hose and runs back to the controller.

Additionally, all this equipment is run on 12 hour shifts. And over that type of duration the system also serves as a workspace for the personnel who are working on this, where they can monitor what's going on.

They can move equipment around as necessary. Sometimes there's some repairs that are needed. And so they need to be able to move around in that station as well.

In that regard Patent Owner has developed a configuration with a walkway down the center of the equipment, and the hoses being deployed out of both sides, which has enabled a safe and effective arrangement here.

So as you already know, Patent Owner, or Petitioner has offered up five primary or key pieces of prior art. And those are Van Vliet, Coxreels,

Shoap, Cable, and AFD. Each of those however has its drawbacks, sometimes more than one drawback.

In the case of Van Vliet it's missing some key claim elements, namely it doesn't have flow passages running through the reels, nor hoses that are connected with those flow passages by the reels.

On Coxreels petition has proposed to incorporate that into Van Vliet. However Coxreels is an unsafe and unreliable piece of equipment.

Shoap does not teach a tube and a sleeve as separate and distinct structures. Sorry.

And then Cable is also unsafe and uninformative for a configuration such as Van Vliet.

And finally AFD lacks an aisle walkway, and also hoses that are deployable from both sides.

Moving to Slide 3, I'm going to start in the 1236 IPR with Ground 1. The focus of this ground is on Van Vliet alone. And we believe that the reasons to deny this ground are that Van Vliet lacks key claim elements.

So on Slide 4 those key claim elements are highlighted here. Again, namely the flow passages running through the reels and the hoses connected with those flow passages by the reels.

On those points Petitioner didn't meet its burden of proving that Van Vliet has those. They've made a lot of arguments based off of Van Vliet figure there. Figure 1 is shown on the right side.

I don't think there's any dispute in any of these IPRs that Van Vliet's figures are highly schematic. And they don't show the level –

JUDGE DEFRANCO: Counsel –

MR. KOZIARZ: Yes.

JUDGE DEFRANCO: Counsel, you don't need to spend time on this particular ground.

MR. KOZIARZ: All right.

JUDGE DEFRANCO: And I don't mean to speak on behalf of my other colleagues. But I think that this was an alternative ground for Petitioner. So I think we're more concerned with the second ground concerning Van Vliet plus Coxreels. That's where I'd spend, focus my attention.

MR. KOZIARZ: All right. I'll skip ahead then. I would like to just point out briefly that on the obviousness portion of Ground 1 Petitioner hasn't really provided any arguments there.

If you review the petition on that they don't even set forth a case. There's no analysis of the obviousness portion. And they really have failed to make a prima facie case of obviousness here.

So jumping to Slide 9 then, Grounds 1A and 2A are focused on Coxreels. And we believe the reasons to deny these grounds are that Coxreels is unsafe and unreliable. And that a person of ordinary skill in the art would not have modified Van Vliet with Coxreels.

JUDGE DEFRANCO: Okay.

MR. KOZIARZ: Again, just a reminder on Slide 10 that safety is really a chief concern here. Some of that relates to what their expert, Dr. Durham, has termed the red zone, which is the area on the well site that has high pressure pumping equipment.

Generally personnel are excluded from that area because of the temperatures and pressures. And that's where the pumps are. But that's where the fuel is delivered to.

JUDGE DEFRANCO: Mr. Koziarz?

MR. KOZIARZ: Yes.

JUDGE DEFRANCO: As far as the safety concerns here, aren't those subsumed by Van Vliet itself, which is, fuel reeling systems, such that, you know, one skilled in the art would understand that safety is a primary concern in Van Vliet because it is a fuel delivery system, just as what your patent covers?

MR. KOZIARZ: I think to some extent that would be true. In fact, Van Vliet does have some safety considerations in it, shut offs and whatnot, emergency valves that could be shut off.

JUDGE DEFRANCO: Right.

MR. KOZIARZ: However, you know, there's only so far that Van Vliet goes in addressing safety. And especially if you're going to be modifying Van Vliet with some other equipment like Coxreels that should be taken into consideration as well.

Van Vliet really doesn't have a lot of information on its reels. Some of the details we get about reels are from Coxreels. And so any safety considerations that come up with regard to the reel I think then would be based on Coxreels.

JUDGE DEFRANCO: Wouldn't you agree that if somebody was going to modify Van Vliet that they, a skilled artisan would at least want to

keep in mind those safety concerns, and then tend to those safety concerns in modifying Van Vliet?

MR. KOZIARZ: Well yes, of course. And that's I think what we're advocating for here is that there's so much at stake with fires that can occur and personnel that can become injured that it's certainly something that would be taken into consideration.

I'm going to skip ahead to Slide 13. And I think here we need to keep in focus what the actual ground in front of us is. Because Petitioner later tries to shift that ground to something else. And we've already, you've already discussed that in the earlier presentation.

But to us it's definitive that the ground is incorporating Coxreels' reel into Van Vliet. There's no real dichotomy between teachings and, or details of Coxreels itself.

And these quotes are all out of the petition, and make clear that it's not the teachings that are relied on. What they've actually proposed is using Coxreels' reel in Van Vliet.

On Slide 14, you know, in taking any reel into consideration a person or ordinary skill in the art, they would have at least conducted an initial analysis to determine whether that equipment would be likely to work in Van Vliet or not, or in these types of systems or not.

And in that regard if they were evaluating Coxreels one of ordinary skill in the art would understand that that would raise some serious concerns.

For example, Coxreels utilizes a brass swivel. And that's something that should not be used with fuel. It can form deposits with the fuel that can

clog downstream injectors, and cause malfunctions and seizures of that equipment.

And then secondly –

JUDGE DEFRANCO: So Counsel, these unsuitability arguments, they go to Petitioner's alternative theory of actually physically substituting Coxreels into Van Vliet.

What about their primary theory, where they're just taking general teachings, by using Coxreels overall teaching of having a built in hose passage and modifying Van Vliet's reels to include a built in flow passage? What is your response to that?

MR. KOZIARZ: Well one, I would disagree that that's a really, a dichotomy in the petition. The main arguments, as I pointed out in Slide 13, are incorporation of the reel. I don't think there's a dichotomy with the teachings versus the physical incorporation.

They, in hindsight seeing maybe that their primary argument of incorporating the physical reels is problematic have sought to focus more so on what they refer to as teachings. But I don't think that was a real distinction in the petition to begin with. But –

JUDGE DEFRANCO: I was looking at the petition on Page 37. And this is the argument that it makes. They say that Coxreels disclosed the reels, or disclosed the reel, and has a built in fluid path.

MR. KOZIARZ: But, and it might have that fluid path. But it's still I think a part of the reel. And that reel is what they're proposing to incorporate into Van Vliet.

But in any case, either way I think case law instructs us that we have to take the entire prior art into consideration, not just portions of it. And, you know, for all that it teaches not just what Petitioner wants you to focus on as far as a passage.

Too, you know, I don't think it necessarily makes –

JUDGE DEFRANCO: And I don't disagree. Counsel, I don't disagree with that. My problem is that Petitioner's theory relates to the general teachings of Coxreels having a built in flow passage.

And I think if you continue on to Page 38 of the petition they say Coxreels teaches a low profile outlet riser with an open drum slot design for a flat smooth hose wrap. That is the general teaching of Coxreels.

I don't think those arguments are necessarily advocating for a physical substitution of Coxreels. I think perhaps later on they may get into that. But I think their primary theory relates to a general teaching.

I'm just wondering does Patent Owner have a response other than it's unsuitable, Coxreels brass fittings, or whatever the other material Coxreels is made of, that those would be physically substituted into Van Vliet.

MR. KOZIARZ: Again, I do think it is the physical incorporation rather than the teachings. But even if it's the teachings we still have this safety consideration to take into account, which again is a chief concern in these types of equipment.

So if it is only the flow passage that still has the problematic brass inlet, and the AFLAS seal. So I don't think even if you take the alternative argument about teachings that that addresses those considerations about safety anyways.

So getting back to Slide 15, again with the brass inlet that can form gel deposits and problems with plugging lines downstream in the orifices and filter screens.

A person of ordinary skill in the art would conclude that the use of brass in refueling is really just a serious risk. And again, with fires and personal injury at stake there's really no reason to take that kind of risk.

Similarly with the AFLAS seal, that has a temperature limitation with it, below which one would expect that seal to fail. Dr. Durham attempts to address this in various ways. But he really doesn't provide any evidence of that.

For example, he suggests that you could only design, you might only design these systems to operate in warmer climates. But he doesn't point out, you know, where those are.

And, you know, as we know, even in South Texas it can get to be pretty cold, and even drop below freezing, below zero, which Dr. Durham admitted as well.

So then in all of this –

JUDGE DEFRANCO: Dr. Durham also testified that these fittings would all be inside the trailer. In some sort of control, temperature controlled environment.

MR. KOZIARZ: Yes. I mean, I don't think that he suggested it was temperature control. I think he was trying to suggest that maybe it's warmer in there. That someone of ordinary skill in the art wouldn't take temperature into consideration, which, you know, with, again that the safety concerns would not be the case.

I don't know that there's any evidence that the temperatures wouldn't be similar inside as they are outside. You know, this equipment has windows where the hoses go out. There's a door on the trailer. So certainly elements of outside can come in.

And unless you've gone out of your way to take some measures to make sure that that heat has been, you know, I don't, there's no reason in the record that one wouldn't expect the temperature to be the same if not similar to outside.

JUDGE DEFRANCO: Okay.

MR. KOZIARZ: I'm going to jump to Slide 18. Again, as I alluded to earlier we need to keep focus on the actual ground, which I think is really the physical incorporation that they propose, rather than teachings necessarily.

I also want to point out here that there's really no basis to suggest that a teaching of a flow path as in Coxreels would be incorporated into Van Vliet.

I mean, if that was their ground then in the petition they should have described that in much greater detail. For one, although Van Vliet discloses a reel, it doesn't disclose any structure of what that reel is.

And without knowing that structure how are we to know what their proposed modification is with the flow passage?

How is that being combined into Van Vliet without knowing what if any structure there is about a reel?

So I think from that standpoint it's impossible to really consider the flow passage just by itself without the rest of the reel in Coxreels. Because otherwise there's no other structure there for us to analyze this.

But in the event –

JUDGE DEFRANCO: Mr. Koziarz, is there any evidence in the record to the meaning of reel?

MR. KOZIARZ: No. I don't think either party has requested a construction on that, or has offered any kind of definition on it. So what we have is only, you know, what's in the references themselves.

I do know from Van Vliet, again it does generally disclose reels. But only that the hoses are stored on the reels. So to the extent that that suggests structure, again, you know, I don't think it's very specific as to what structure that is.

JUDGE DEFRANCO: So you're really relying on a plain and ordinary meaning of reel?

MR. KOZIARZ: Yes. I would agree with that.

JUDGE DEFRANCO: Okay.

MR. KOZIARZ: So I'm going to jump to Slide 19 now. So this is the 1236 IPR at Grounds 2 and 2A. And again, the focus here is on Shoap. Shoap we don't believe teaches a tube and a sleeve as separate and distinct structures.

Petitioner offers a design choice shortcut to make up for that. But even that offering of the design choice lacks reason. And in any case would be unsafe.

There was construction relating to these grounds about the tube and the sleeve. And I think we've already covered that. So I won't go into it other than to point out that it required that the tube and the sleeve were separate and distinct structures.

And you can see on this, the figure there on the bottom. That's Figure 5 from the patent. And the Item 64 there, Element 62 is the sleeve, 62 is the tube. And then there's a Wire 66 that travels along between those.

Let's turn to Slide 21. So this figure shows Shoap. Again, that has a single structure, 100. It may have an inside Circus 110 or an outside Circus 140. But there definitely is not here a separate sleeve that circumscribes a distinct tube.

So alternatively Petitioner has proposed, well one skilled in the art could make two thinner concentric conduits. But I think that sort of sidesteps the obviousness analysis.

It's not whether one of ordinary skill in the art necessarily could do something. It's whether they have reason to do that, whether there's motivation that would prompt them to make that modification. And I don't think Petitioner has given any reason like that here.

In any case, such two thinner concentric conduits, they wouldn't be safe anyways. If there were to be a leak in the inner conduit the outer conduit would obscure being able to visually identify where that leak is, which means the leak would go on unaddressed. And that –

JUDGE MARSCHALL: Counsel –

MR. KOZIARZ: Yes.

JUDGE MARSCHALL: This is Judge Marschall. Sorry to interrupt. Do you dispute that, or does Patent Owner dispute that using sleeves to surround tubes are well known in the art at the time this patent was filed, as Petitioner contends?

MR. KOZIARZ: Do I contest that? I think I do. Because if it wasn't they would have had a ground that was inclusive of prior art that had that. They pointed to some other references. For instance I think Desihose and Rhino Sleeve that may some sort of fabric sleeve on them. But the question is, why weren't those part of the grounds then? To me it's because –

JUDGE MARSCHALL: Well, I understand there's a dispute, you know. It would be better and more clear if there was an explicit reference in the grounds, or another reference. But sometimes issues turn on arguments of design choice, which of course standing alone is not very convincing.

But if their expert as here points to other references in the art that are evidence that it is a mere design choice that presents at least a question for us. That's what I'm asking.

Do you dispute that these references in the prior art, whether they're part of the ground or not, that show the two part structure that's required by our claim construction?

MR. KOZIARZ: I don't dispute that those references exist. I think the real question is, is there a reason to combine them to modify Shoap with those? And that reason I don't think exists.

Desihose was a fuel injector tube, vinyl sleeve. I don't even know that that is actually prior art. So maybe Dr. Durham did point to those. But

I don't think there was any underlying analysis as to what reason one would have to modify with those.

JUDGE MARSCHALL: You don't believe existing designs undermine your argument that it would be unsafe to use this two part structure?

MR. KOZIARZ: I don't think so. I mean, whether you use this two thinner concentric tubes with a sleeve? Is that what you're suggesting?

JUDGE MARSCHALL: Correct.

MR. KOZIARZ: I don't think it undermines that at all. Because two thinner concentric conduits would still have the problems of obscuring a leak, and trapping the fuel in the interface between those conduits, which is where the electric wire is. So that would mean fuel in contact with an electric wire, which of course would be a concerning safety consideration.

JUDGE MARSCHALL: I guess what I'm asking is the Rhino Sleeve and the Desihose examples, would they encounter those same safety concerns you raised? Or are they a completely different design that somehow would get around those concerns?

MR. KOZIARZ: I think those would be completely different. Because two thinner concentric conduits to me suggests you take what's here in Shoap, and you just make that two instead of one.

So if it's rubber or plastic there would be two layers of rubber or plastic, which would be maybe more likely to trap leaking fuel. I don't know if a fabric sleeve would have that same problem or not.

Certainly I think the fabric sleeve would obscure visually where a leak would be occurring. So in that respect it still would have at least that same concern I think.

JUDGE MARSCHALL: All right. I guess that's what I'm getting at. If it has the same concern and they still use it despite that concern does that undermine your argument that the safety concern would somehow teach away or dissuade a POSITA from using this approach?

MR. KOZIARZ: I think it would dissuade them. But I don't think that Petitioner has addressed that in any way. Again, they've simply cited two things without including them really in the grounds officially.

One of them I don't think is prior art. The other one is not for, you know, the type of tube we're talking about here in an automated fueling system.

So whether they exist or not I think is not the real focus. The focus is: are they instructive for an ordinary skill in the art to make that modification. And in that I don't think they are.

JUDGE MARSCHALL: Thank you.

JUDGE DEFRANCO: Just to follow-up, Counsel. What is the protective aspect with (Audio interference) the sleeve, meaning when they're describing those for hose protection?

MR. KOZIARZ: I can't speak to those specifically of why someone might use those for protection. I know in our own we use them to protect the underlying communication wire.

The hoses run along the ground. There's dirt and gravel that can come into contact with the hose. And that way the sleeve protects exposure of the wire from those elements that might be on the ground.

JUDGE DEFRANCO: So if offers some sort of abrasion protection?

MR. KOZIARZ: Yes, that's right.

JUDGE DEFRANCO: As well as protection from oil spillage and communicating?

MR. KOZIARZ: I think the only protection from a spill would be that it would blunt, you know, if there puncture and fuel would be spurting out, it would blunt the spurt of fuel just by the physical barrier, acting as a physical barrier. So you wouldn't have the fuel spraying out as much as you would otherwise without it.

JUDGE DEFRANCO: Thank you. You can go on.

MR. KOZIARZ: So I'm going to move on to Slide 22 now, because we think there's separate reasons on Claim 7 that Claim 7 is patentable. So Claim 7 is directed to connectors that are mounted on the reels. Those connectors function to handle the communication lines that depart from the hose, and then run from the reel back to the controller.

Petitioner, they rely on Shoap's slip ring. They later deny that reliance. But if you look back through their citation to the extra report in Paragraph 192, they explicitly rely on that slip ring.

But if they do deny it I think it raises the question, well if it's not that connector from Shoap, then what connector are they relying on? And they're just invent, you know, pulling one out of thin air from design choice as a surrogate for that claim feature. And that is certainly improper.

But not only that, that slip ring in Shoap is not safe either. It connects a signal across a rotating part to a non-rotating part. And the way that it does that is with a signal that creates sparks between those two components.

In the environment with fuel vapor you certainly wouldn't want sparking. And that would dissuade someone of ordinary skill in the art from using that type of connector anyways.

But beyond that Petitioner hasn't provided any reason to make that modification. And what they're really doing here is exercising impermissible hindsight based on teachings that are gleaned only from the patent.

Similarly in Claim 11 we think that this is separately remains patentable. Claim 11 is directed to the sleeve as being a fabric sleeve. Shoap doesn't disclose a separate sleeve, let alone a separate fabric sleeve.

And as we've already discussed, maybe those existed in some other references that weren't cited in the ground itself. But we feel that this is another design choice shortcut by Petitioner to attempt to add a fabric sleeve that isn't there in the first place.

Again, Desihose is directed to some other type of hose. And the vinyl sleeve is not prior art. And it doesn't suffice for these to simply be known. There had to be some reason for one of ordinary skill in the art to turn to those.

So I'm going now to the 1237 IPR. And we'll start here with Ground 2. This ground is focused on Van Vliet alone. And we feel the reason to deny this ground is that Van Vliet doesn't disclose or suggest an aisle walkway, or hoses deployable from both sides.

1 So here's Claim 17 and 18. The pertinent parts of those are
2 highlighted here. Hoses on both sides, reels arranged on opposing sides with
3 an aisle walkway.
4 On the anticipation portion of Ground 2 Van Vliet doesn't disclose or
5 suggest either of these features. Petitioner tries to rely on a quote from Van
6 Vliet. I think it's in Paragraph 24. But that doesn't say what Petitioner
7 suggests.
8 That, it talks about manifolds and maybe supplying portions of the
9 well from the two manifolds. But it doesn't suggest or even require that the
10 hoses come out of both sides, as Petitioner would have you believe. For
11 instance, N refers to an opening, which suggests that the hoses would come
12 out one side.
13 And on the obviousness portion of this ground Petitioner states that,
14 you know, that arrangement would be the most obvious arrangement. They
15 never go on to explain why it's most obvious.
16 And then more recently they've shifted to try to suggest that there's
17 only a couple of possibilities, and it would be obvious to select from those.
18 But that's not an argument that they made in the petition. That's a new
19 argument.
20 The other argument that they raise with that is that the trailer could
21 face such that hoses on one side would face one part of the well, hoses out
22 the other side would face the other part of the well.
23 But it's just an artificial argument here. Because they never explain
24 what faces means. You know, what does it mean for a trailer to face a

1 certain way? Does that mean something with regard to the hoses, the side
2 itself? You know, they never explain that.
3 And all it really is artificial argument on their part, where they've
4 selected a trailer location and an undefined direction it faces in order to try
5 to recreate these claim features.
6 And again, hoses coming out both sides, that's only known from our
7 patents. It's not known in the prior art. And what they've really done here
8 is glean that from our patents.
9 And I want to just focus on Claim 18. Really this is Claim 17 as well.
10 Because those claims are under Grounds 1, 2, and 5. But none of these
11 grounds meet all the limitations.
12 On Ground 1 neither Van Vliet or Cable has hoses deployed out both
13 sides. You can see in the pictures below Van Vliet. Even on the schematic
14 it still suggests that hoses would come out at one side of the trailer.
15 Cable there is a truck, and the hoses are at the rear of the truck, so that
16 they can be deployed out the back. So even though there's maybe several
17 sets of hoses or reels there, they still all come out of one side of the truck.
18 And I think it was noted in the earlier presentation whether Cable had
19 the same equipment on both sides, you know, two of the same sets of
20 equipment. But I don't think that's the case. There's some different
21 equipment on each side of Cable, as far as what tanks are there, and what
22 lubricants, and whatnot.
23 There's nothing in the text either in Van Vliet or Cable that suggests
24 hoses out both sides. So aside from Petitioner's misplaced emphasis on the

1 quote from Van Vliet, and their self-made figure, there's really nothing in
2 the record that teaches hoses coming out of both sides.
3 In fact, Patent Owner's expert, Dr. Rogers, testified that no matter
4 what, where the pumps of the well are located you could always deploy the
5 hoses out of one side. There's no need to orient the trailer in any particular
6 way for hoses to come out one side.
7 You know, someone suggested earlier maybe you need a longer
8 trailer. Well, I don't know, we don't know that that's the case either.
9 And Ground 2. Again, neither of the references disclose those
10 features. And again, the quote that they relied on doesn't describe that, as
11 we've already talked about.
12 On Ground 5 this starts to get a little bit into AFD, which we'll go into
13 more later on. But AFD doesn't have an aisle walkway either. Dr. Durham
14 has admitted to that, that he can't see the reels in AFD. And even if you
15 assumed it did have hoses coming out both sides, that doesn't necessitate a
16 walkway down the middle of those reels.
17 So there's no factual basis for concluding that AFD has even hoses
18 coming out one side, or let alone an aisle walkway.
19 But even Petitioner has seemed to have backed away from that. You
20 know, on their Slide 12 they cite to Cable, not Van Vliet for a walkway. So
21 whereas in the petition they seem to rely on AFD for a walkway, they since
22 seem to have abandoned that point.
23 I want to turn now to Grounds 1, 3, and 4. The focus here is on Cable.
24 We don't think there's a supported rationale to combine. And Cable's not

1 informative of a practical arrangement for Van Vliet. And we also think
2 Cable would be unsafe.
3 So in Petitioner's rationale they state that reel and equipment on one
4 side of the well are fed from reels on the same side of the vehicle, while on
5 the other side of the well it's fed from reels on the opposite side of the
6 vehicle.
7 But it's unknown where they get that from. That's not supported
8 factually in any of the references. Again, on the right side the figure from
9 Cable has reels. But all of those are deployed out the back side. And
10 similarly in Van Vliet all the hoses are from one side. So neither Cable or
11 Van Vliet has that.
12 But Cable, it's not even informative of a practical arrangement for
13 Van Vliet. And you might think well why does that matter? Why does a
14 practical arrangement matter. I think it matters because that's what the
15 grounds require here.
16 Petitioner states, although Van Vliet does not detail a physical
17 arrangement, Cable does. So that very clearly suggests that what they're
18 proposing is a physical arrangement of Cable into Van Vliet.
19 But Cable itself, you know, has some differences as well. It's a
20 drivable vehicle, whereas Van Vliet's trailer is not drivable. Cable refers to
21 some patents in its background. And those are all about servicing
22 automobiles. Van Vliet doesn't service automobiles.
23 The aisleway even in Cable is for the driver to go from the driver
24 compartment to the rear of the truck. And, you know, of course in Van Vliet
25 there's no driver compartment there.

It makes clear that the real purpose of Cable is predicated on roadside service. A driver wouldn't want to get out into traffic to service a vehicle that he's pulled up in front of. And so, in that case it makes sense for him to be able to get to the rear of the truck to service that vehicle.

None of those are concerns in Van Vliet. And for that reason one or ordinary skill in the art wouldn't look to Cable for that physical arrangement that Petitioner has proposed.

They've also suggested, Petitioner has also suggested that an aisleway would provide better access for maintenance and repair. We don't agree with that.

If you look back at Cable it's not an issue in Cable. Because you can access both sides of these reels, because those rear doors of Cable open up. So someone would have access to both the front of the reel and the back.

Whereas, if you arrange them on opposed sides of an aisleway, you know, one side then would back up to the trailer wall. And someone wouldn't then have access to that side for maintenance or repair of that reel.

So we don't agree with their point on maintenance and repair. We think that arranging the reels on opposed sides would hinder that access, not enhance it.

Now if we turn to Slide 34, they also suggest that the aisleway would make the trailer more easily traversable. I don't think that's the case either. If you put two reels across from each other, oriented as they are in Cable, based on measurements taken from Coxreels that would take up at least 83 inches of the trailer width, leaving only 13 inches for a aisle.

1 Now, I'm a pretty big guy. I wouldn't fit down 13 inches. But not
2 only that, it would be unsafe. It wouldn't meet OSHA safety requirements
3 for an exit.
4 And Cable suggests that as well. It says that its walkway is also a
5 storage area, which I think would discourage one or ordinary skill in the art
6 from looking to Cable.
7 The workers in Van Vliet and those Texas systems, they need to be
8 able to move about, you know, as I mentioned earlier for repair and whatnot.
9 And having a storage area in that walkway would hinder that traversability,
10 you know. Does it block it or not?
11 Well, if there's anything in that aisleway, that's a blockage. It's a
12 hazard, a tripping hazard potentially. And so suggesting that Cable's
13 aisleway is also a storage area would cause one or ordinary skill in the art to
14 turn away from Cable.
15 On Slide 35, I just want to return here to Claim 17. And I just want to
16 emphasize here that on Ground 1 as to Claim 17 Petitioner doesn't rely on or
17 involve Cable, and only relies on Ground 2, which is anticipation or
18 obviousness under Van Vliet alone.
19 So for Claim 17 Cable doesn't even come into play. Because in effect
20 Claim 17 only Grounds at 2 and 5, which is Van Vliet alone or Van Vliet
21 and AFD.
22 And so we've already talked about the aisle walkway earlier. So
23 Grounds 4, 7, and 8, these again focus on Coxreels. And we've already
24 discussed that at good length here. For the same reasons we believe those
25 grounds should be denied.

On Grounds 5 to 8, these focus on AFD. We believe AFD is inconclusive as to hoses coming out both sides, and that it lacks an aisle walkway.

I want to emphasize here that it's Petitioner that has the burden from a factual basis to prove what AFD has or doesn't have. And they point to some hoses that look like they are on the other side of this trailer in AFD.

But we can't see over there. The picture doesn't show the other side. There's no definitive factual basis to conclude that that, whether those hoses are to come out of the other side of this trailer.

And we've pointed out that this picture from AFD also appears to be cropped in some way. Some of the other photos from AFD have other equipment in the background. That isn't present here. And so it's pretty clear that there has been some editing of this picture by whoever made that AFD brochure.

So we don't know whether there's other equipment that might have been in the background that has hoses that those could be coming from instead. But it certainly doesn't prove that those hoses are coming out of the other side of AFD.

And in fact, if you zoom up one of those windows on the side that we can see, you can see that there's hose guides where the hoses come out of.

So overall AFD discloses that it can use 24 hoses. We only see two hoses coming out of each of those windows, while there's two hose guides that are in this picture emptied.

So that suggests that, you know, when all 24 hoses are used that the other 12 hoses would come out those hose guides that in this in picture don't have hoses coming out.

So instead of coming out the other side as Petitioner suggests, these hose guides suggest that all 24 would come out this one visible side that we can see. So again, there's no factual basis to conclude that there's any hoses coming out the other side here.

JUDGE DEFRANCO: Counsel, did you move to exclude this, that photo as inaccurate?

MR. KOZIARZ: No, I'm not suggesting that Petitioner has modified it in any way at all. If that's what you're alluding to. It's from the brochure of AFD. It's clear that some of their photos have equipment in the background, but this photo does not.

So I think that makes it evident that there was some manipulation of this photo to remove whatever was in the background. At the very least, there should be some background there whether, you know, it actually had equipment or not.

But we don't know because that was removed. So we don't, aren't able to see for sure whether there's hoses there or where those hoses are coming from.

JUDGE DEFRANCO: I think that is my point. Did you move to exclude because it was somehow altered?

MR. KOZIARZ: No, we did not. But I don't think we need to because it doesn't support the ground. There's no, again, there's no basis to conclude that this hose is coming out that side. It's a speculation.

JUDGE DEFRANCO: Well I think it's a matter of how one skilled in the art looking at the picture would interpret those hoses that are in the --

MR. KOZIARZ: Yes, I think you're right and the editing of the photo I think would come into play in that respect of how one of ordinary skill in the art would interpret it knowing that there's potentially something removed from the background makes it less likely I think for them to conclude that those hoses are coming out of the other side.

JUDGE DEFRANCO: I think that's where my confusion was. Did Petitioner admit that was altered?

MR. KOZIARZ: I don't know if they've gone as far as to admit it. I think they're suggesting that because you can see the hoses underneath that means those hoses aren't necessarily coming out the other side.

But that's a far leap is what I think our suggestion is. Is that just because you can see hoses there doesn't mean those hoses are coming out of that side.

JUDGE DEFRANCO: That's my point is how would one skilled in the art recognize that picture as having been altered? It doesn't seem like there's anything indicating that. So other than your word that it could have been altered. Is there any evidence saying that it was altered?

MR. KOZIARZ: I think our expert, if I'm not mistaken has suggested that there has been some alteration of it to remove the background because the other pictures have some background in them.

JUDGE DEFRANCO: Isn’t he speculating. He is speculating on the alteration because --

(Simultaneous speaking.)

MR. KOZIARZ: I don't necessarily agree that it's speculation --

JUDGE DEFRANCO: -- I'm just saying --

MR. KOZIARZ: -- I believe it's a comparison of the pictures that are in AFD to each other. And if you include background in some of them, but not in the other one of them, I think that suggests very strongly that there's been some manipulation of that picture. But even if there hasn't been, --

JUDGE DEFRANCO: Oh, I see. Now I see what you're saying.

MR. KOZIARZ: We still can't see what's on that slide.

JUDGE DEFRANCO: Right.

MR. KOZIARZ: And so on Slide 39, Petitioner, they suggested that AFD must have an aisle walkway so to us that's a argument of inherency which means they need to prove that it necessarily is present. They haven't done that.

In fact, Dr. Durham admitted that the hoses in the AFD did not necessitate that there be two rows of reels or that there be any aisleway. And then without AFD if you just look at Van Vliet alone, Van Vliet doesn't render obvious in an aisle walkway either.

And that was discussed above under Ground 2. So just in sum, AFD lacks those features. But I want to turn briefly to 7 to 10, Claims 7 to 10 as those are separately remain patentable. Claim 7 focuses on an outside door, an inside wall. It defines compartments.

The outside door opens into that first compartment and the manifolds and the wheels are in the first compartment. Petitioner has totally missed on these claims. They haven't explained how AFD, they point to a flag fair

that's shown in the red arrow, but they haven't explained how that's considered to be a door or an end wall.

They provided no analysis on the inside wall or compartments. And they failed to explain how a control room is in the mobile trailer. Maybe AFD has a control room there on the right, but visually it's very separate from the trailer there on the left at least.

And they haven't described that or taken it into consideration at all. So at this point, I want to pass to my partner, Alex Szypa to handle the 1238 IPR.

MR. SZYPA: Thank you, Matt. May it please the Board, Alex Szypa on behalf of Patent Owner, The Automation Station. I actually want to go out of order here to address what you said earlier, Judge Dougal. And I want to jump right to Grounds 3 and 3A just to make sure that we are heard on these and we can answer whatever questions you might have.

Grounds 3 and 3A are obviousness challenges to Claims 6 through 10 and 14 through 20. And these particular challenges bring in what have come to be known as the LCR 1 and LCR 2 references. Now for these particular grounds what I want to focus on in particular is Claim 19. And Claim 19 requires a specific location for that register.

Namely, the registered must be located "between the at least one pump and the at least one manifold." Now, Petitioner has failed to sufficiently account for that location in the Petition. As attempted support, Petitioner offered two conclusory and unsupported allegations. These are at the Petition at Page 55.

The first allegation was that the register should be installed directly downstream of the pump 32 in order to obtain the most accurate flow rate measurements possible. And there's no support that particular location is somehow more accurate than any other alternative location. They didn't offer any support for that.

We believe that's a conclusory and unsupported allegation. The next one that they offer as an alternative is that installing a register that is designed to be used with a pump directly downstream of the pump is an obvious design choice. Again, nothing further on that. It's conclusory and unsupported. At one point they --

JUDGE DEFRANCO: Counsel?

MR. SZYPA: Yes?

JUDGE DEFRANCO: Counsel, do you agree that the LCR 1 and 2 disclosed are registers designed to be used with a pump?

MR. SZYPA: Designed to be used with a pump. I suppose it could be used, it could be used with a number of types of equipment which may include a pump, but this claim is directed to a --

JUDGE DEFRANCO: Well my question is --

MR. SZYPA: -- particular location.

JUDGE DEFRANCO: -- do the LCR 1 and 2 teach a register that's designed specifically to be used with a pump?

MR. SZYPA: Specifically to be used with a pump. I guess I would have to re-analyze LCR to know if it was specifically for use with a pump. I believe it does mention a pump at some point in one of the references which suggests compatibility with a pump.

But again, here what we're focused on is this particular location. Which they call a directly downstream --

(Simultaneous speaking.)

JUDGE DEFRANCO: Counsel, speaking of location, so if LCR 1 and 2 disclose or teach a register designed to be used with a pump or for use with a pump, that would suggest then that the register would either be downstream or upstream of the pump. Am I correct?

MR. SZYPA: Those are two possible locations, downstream or upstream, but from there, there could be several locations upstream or downstream. And the claim doesn't --

JUDGE DEFRANCO: If they are designed to be used with a pump, they have to be used adjacent to the pump. Right?

MR. SZYPA: I guess. I don't know what you mean by adjacent. I mean, this particular claim requires that the register is situated between two specific components. It's not just adjacent a pump or near a pump. It has to be between a pump and a manifold.

JUDGE DEFRANCO: And I certainly understand that is what the claim says, but I guess I'm wondering as far as LCR 1 and 2 what exactly they are teaching. It seems to me and I think you conceded that they are teaching a register to be used with a pump. Right?

MR. SZYPA: I would say that a POSITA would understand these LCR registers. I mean a 30,000 foot view, a register is something that is used to calculate flow rate through a fluid path. Right? So could there be a pump in that fluid path? Sure. Is it required? No.

I don't know that, I do think that the references suggest compatibility with a fluid path that also has a pump, but I don't know that it's necessarily required or that it suggests that the register needs to somehow be located near the pump or, you know, directly downstream of the pump in between the pump and a manifold as the claim requires.

JUDGE DEFRANCO: Yeah, aside from the manifold part, which I understand. Like from one instance, I was just wondering since the reference is saying that you would have a register that's compatible with the pump, that would seem to suggest that it's got to be somewhere near a pump or assembled to a pump if it's going to be used with the pump. Would you at least agree to that?

MR. SZYPA: I suppose it could be used near the pump. I'm not sure that argument was made in the Petition that a skilled person would interpret LCR to, you know, to require that.

JUDGE DEFRANCO: Well that's a different argument, and the Petitioner can point us to where they may have made that argument. If it wasn’t made, then it wasn't made so. All right.

MR. SZYPA: I will say that --

JUDGE DEFRANCO: Thank you very much.

MR. SZYPA: -- in Dr. Durham's declaration, he cites to the LCR reference saying that the LCR register is designed to be installed downstream of the pump. And we verify there's nothing in the reference that says that.

Those particular words downstream of the pump. There's nothing in there. And, you know, in response Patent Owner and its expert have identified several locations that the register could be located in Van Vliet.

A few of these are shown on the screen here. And there's also provided good reasons for some of those locations. One example being --

JUDGE DOUGAL: Counsel, just to clarify you're on Slide 52.

MR. SZYPA: Oh, okay. Did I misspeak?

JUDGE DOUGAL: No, you just didn't say the number of this.

MR. SZYPA: Oh, okay. I'm sorry. Yes, I'm on Slide 52. On the diagram on the right, some of those proposed locations are shown.

JUDGE MARSCHALL: This is Judge Marschall. If I could interrupt. Looking at your Slide 52, which I believe is the same figure as on Page 43 of the Response, it looks like you're identifying both potential locations. Is that accurate of the register?

MR. SZYPA: There are four notated on the slide, but there could be several more. Like, for example, there's one on a vertical blue annotation there on one of the outlets. What we have said is that each outlet could have one of those.

In addition, --

JUDGE MARSCHALL: Sure.

MR. SZYPA: -- there's, you know, there's two pumps in Van Vliet so we kind of show examples from one pump's fluid path, but you know, if you could have it in the others as well.

JUDGE MARSCHALL: Sure, and I think you know what I'm getting at here, but Petitioner's theory, which their expert expounded on in the

declaration with the Petition, is that it would have been obvious to try one of these locations, either of those two locations either immediately upstream or downstream of the pump, you identify a few more, but in either case, there's a finite number, and it would have been obvious to try any of these. What is your response to that argument?

MR. SZYPA: Well, my response to that is that the obvious to try argument was in, it may have been in a declaration in passing, but it wasn't in the Petition. And the finite number of options argument was not in either, but it was only in Petitioner's Reply. So we consider that to be a new argument.

JUDGE MARSCHALL: Okay. Well, that is an issue that we'll have to address whether the citations to that declaration is sufficient to preserve that argument with the Petition and in particular looking at paragraph 226 in the Exhibit 1003 of their own declaration.

But in that declaration, he states that there are a limited number of locations in the system where it makes sense to install the register and that the line between the pump and manifold would at least be obvious to try.

So I believe that would at least get at the idea of limited number of options, or a finite number of options that would lead to the Reply. So aside from the argument of incorporation by reference you made, I think it would be good to address the substance of that.

It seems like on some just off the cuff level, maybe there are a finite number of options in the diagram, you know, shown on Slide 52. But I guess I'm asking aside from waiver or incorporation by reference, if you have any substantive argument against the obvious to try argument.

MR. SZYPA: I guess I'm not, I don't believe that we would agree that this constitutes a finite number. If you look, the claim requires that the register be between at least one pump and a manifold which is I guess annotated as the yellow section on the screen here on Slide 52.

That's a very in this diagram, it's a very small part of the fluid line and there's several different other locations elsewhere in the fluid path that the register could have been located. And so, we wouldn't agree with that.

JUDGE MARSCHALL: Does your expert opine in prior testimony on this particular issue regarding obvious to try or the finite number of options, aside from identifying the locations shown in Slide 52?

MR. SZYPA: I would ask if I could confirm that and maybe re-address that on surrebuttal.

JUDGE MARSCHALL: Yes, sure, surrebuttal.

MR. SZYPA: Okay. Just back to, you know, the various examples that Petitioner and our expert, Dr. Rodgers, provided, one of those being having the registers downstream of the manifold somewhere at each individual outlet as I discussed would be shown, that the vertical blue annotation on Slide 52.

That would have the benefit of allowing flow through separate outlets and, in turn, separate hoses to be individually tracked such that if you had two customers that were receiving fuel from one system, each customer could have its own individual reading from the register and be invoiced separately and accordingly.

And I just want to point out Petitioner's Reply introduced a number of new arguments to attempt to cure the deficiency in its Petition. These are at

Pages 19 and 20 of the Reply. They offer a new annotated image. They allege that the proposed modification would be to simplify the system.

They talk about a finite number of options which we have already discussed and there's also a discussion of only two possible locations. We believe all of those are new and we addressed such in our Surreply. I'll just go in order now jumping to Grounds 4 and 4a.

These are obviousness challenges which bring in the DeFosse reference against Claim 13. There's this insufficient rationale again for the proposed combination. The particular claim requires that the -- I'm sorry, Claim 13 and I'm on Slide 54 by the way, that the two pumps are arranged in fluid series.

The Petition defines DeFosse and Van Vliet as being directed to solving the same problem which they define as pumping fluids in the context of fracturing. And I think opposing counsel used the phrase today moving fluids around a frack site.

And we just believe this is a complete over-generalization of what Van Vliet actually discloses. Van Vliet is a system for pumping fuel and DeFosse, the pumping of fluids in DeFosse is not a related context to Van Vliet's pumping of fuel.

It pumps in DeFosse survey well site to pump large quantities of a water polymer mixture for injection into a well. Van Vliet's pump served an entirely different purpose. I also do want to point out there was discussion earlier about Dr. Durham's declaration at paragraphs 244 and 251.

We do maintain that these lack of necessary factual support and also agree with the proposal that to the extent that the Petitioner is trying to bring

these arguments into the Petition, that this would be an improper incorporation by reference.

Also, you know, to the extent that those paragraphs or opinions are based on Dr. Durham's personal experience, our own expert has refuted them so we don't believe those should carry the day in the Petition. I also, I'm not going to pull it up here, but I had a note on Slide 94 of Petitioner's slide deck.

And there were two items, No. 2 and No. 4, which they believed -- those were shown on the right of the slide and they believed that those were reflected in the highlighted sentence on the left.

I would, you know, invite the Board to confirm that the highlighted sentence on the left actually doesn't say what they're proposing in numbers 2 and 4 on the right. I would like to go back to Ground 1 very quickly. That's on Slide 43.

These are 102 and 103 challenges to Claims 1 and 11 through 12 based on Van Vliet. I'm going to move quickly through this because as shown on Slide 47, the Board's findings that institution seemed to agree with Patent Owner's position on these grounds.

So I'm going to move along, accept that. The basis for these findings was based on the relationship between the manifold and the reels, so there are various limitations in this particular patent that discuss how the manifold is connected to the reel.

Now jumping back to Claim 45, to the extent that it still matters and it may not, if the Board resolves these grounds based on the manifold reel connections, Patent Owner still believes that the what I'll call the hose

connected limitations which are 1E, 11E, and 19F should be construed to require that the end of the hose is coupled to the reel.

And this is based on disclosure in the Patent that wound and connect are used differently in the Patent such that it would follow that, you know, that this argument that because Van Vliet discloses hoses wound around its reels that they're somehow then connected to the reels.

I would also like to point out a specific portion of the patent, Column 2, line 63 that uses the phrase ‘connected with’ which is the phrase from the claims. And if you were to look at that section, you would see that it describes a fluid connection being described.

Going to Ground 2 on Slide 49, this highlights the two main items that Petitioner relied on Cable for in this ground. You've already heard from my co-counsel today about No. 2 with regard to the other Petition so I won't get into that, but I did want to quickly address No., lower case Roman numeral one here on the slide.

Here, Petitioner relies on Cable for modifying Van Vliet to include a manifold connected with or through the reels. Petitioner has not provided sufficient rationale or motivation for combining Cables, reels and connections into Van Vliet.

That's not enough that the reels and connections were merely known, there has to be something more and I would note that at Page 14 of the Institution Decision, Your Honors noted that Patent Owner was mostly correct on this point.

That was the term that was used. But there was a citation in the Institution Decision to one sentence about Cables "reel configuration." And

the Patent Owner maintains that this reasoning about the reel configuration is about the alleged aisleway configuration in Cable and not the, any type of connection of the manifold to the reel.

And, in fact, if you were to look at the 1237 Petition which does not rely on Cable for any type of manifold or manifold to reel connection, you'll see that the same exact sentence is used in there which suggests that this particular reasoning is for the aisleway and not that connection.

I know that there was in Petitioner's argument, they cited to a portion of Dr. Durham's deposition on that point where he tried to cure that. But again, that's not in the Petition and we believe that should be seen as an after-the-fact attempt to cure deficiency in the Petition.

Slide 50 just addresses the various new arguments that Petitioner made a Reply on this point which Patent Owner has responded to in its Surreply. I have about a minute left here so I want to just quickly touch on Secondary Considerations.

That's Slide 56. Here we believe there is a presumption of nexus to the patented features because the product embodies the claimed features. Patent Owner's commercial FAS unit which was what they call their system is covered by the Patent claims.

And this was concluded by Patent's expert, or Patent Owner's expert, Dr. Rodgers, based on his personal inspection of a FAS unit. And --

JUDGE DOUGAL: Counsel?

MR. SZYPA: Sure.

JUDGE DOUGAL: Is it for your expert to make that conclusion or is it for the Board to make that conclusion?

MR. SZYPA: I am sorry. The conclusion that he made was just that the unit was covered by the claims.

JUDGE DOUGAL: Right. I mean we have to determine if there's a nexus and so do we need to independently determine that your FAS unit is covered by the claims of the patent or why is it sufficient for us to rely on your expert when he says it is?

MR. SZYPA: Well I point out that was undisputed by Petitioner's expert. Petitioner's expert had the opportunity and did, in fact, perform the same in-person physical inspection before he submitted his supplemental declaration.

And for whatever reason, that supplemental declaration is silent as to whether the FAS unit is covered by Patent Owner's Patent claims. So we would ask that you consider this undisputed evidence in determining whether the commercial product of Patent Owner is covered by these claims.

JUDGE DOUGAL: Do secondary considerations change any of the burdens? Like is it Petitioner's burden to show that secondary conditions don't apply or is it your burden to show that there's a nexus and they do? Who has the burden here?

MR. SZYPA: I would be guessing if I answered that without looking at the case law. Off the top of my head, I don't recall the burden of proof for secondary --

JUDGE DOUGAL: Well no worries.

MR. SZYPA: -- considerations. In any event, industry praise, evidence of copying, evidence of licensing, and commercial success are all provided in the Petition and are all related to that FAS unit product that was

analyzed by Dr. Rodgers. We'll reserve the rest of our time for rebuttal. Thank you.

JUDGE DOUGAL: All right, thank you, Counsel. So as we discussed in the beginning of the hearing, we'll take a seven-minute break. And reconvene I guess at 11:42, 43 a.m.

MS. FLANNERY: Sounds good. Thank you, Your Honor.

(Whereupon, the above-entitled matter went off the record at 1:36 p.m. and resumed at 1:43 p.m.)

JUDGE DOUGAL: It looks like everyone's ready. We'll go back on record.

MS. FLANNERY: I'll start with regard to the 805 Patent which I will do better this time for the record. That's IPR Petition No. that ends in 01237. And address a couple of the arguments that Patent Owner presented just now on that issue.

I first want to talk about their rebuttal with regard to Ground 2 which is the ground that only relates to Van Vliet for Claims 17 and 18. On Claim 17, they noted, it seems to be the main argument is that the idea of having, you know, the fact that there really only are two ways to have the hose go out the sidewalls of the trailer, there's really only two ways to do that.

I think there's some dispute over whether or not that's in the Petition. There is no dispute then the Petition and the Petitioner's declaration, supporting declaration, it was asserted that the most obvious way of arranging the hose deployments in Van Vliet was to deploy them out of both sides.

Again, to address wells on opposite sides of -- after I started to address equipment on opposite sides of a well. Now, I do think we have, you know, healthy debate over whether or not there are, whether that is in fact the most obvious solution or whether there are other ones that might be more obvious.

However, the fact that it was stated that it is the most obvious necessarily means that there are a few others. I think Dr. Durham concedes that there are a few others in his declaration that would be possibilities. But that misses the point.

The fact that there are only a handful, finite number of ways to do it. In this case, we think two, maybe more if you have a longer trailer, things like that. But the point is, we have a finite number of solutions to that issue of servicing equipment on both sides of the well.

And the Petition very clearly states that running the hoses out of both sides of the trailer is one, the most obvious. But at least one obvious solution. So that's very clearly stated in the Petition. I don't think there's any argument that is somehow a brand-new theory that wasn't addressed in the Petition.

Moving on to the argument about -- let's see, I'm going to go to the argument about Ground 5. This is dealing with AFD and I'm going to skip through real fast to go to Slide 47. And Patent Owner presented an argument in their presentation about Claim 18. And they said that Claim 18 is still valid because there's no disclosure in AFD of an aisle.

Now, as I talked about it in my initial presentation and I did this with regard to Slide 43 of our presentation, there's no dispute. Patent -- we

1 presented this argument in our Petition that once you deploy hoses out both
2 sides of the, out both sides of the trailer, whether that's by virtue of Van
3 Vliet or something else, an aisle would be an obvious way of doing that and
4 it would be necessary to avoid tripping hazards.
5 Our expert talked about that in the Petition and there's no, there's no
6 response to that at all by Patent Owner. And so Slide 43 is where we made
7 that argument with regard to Van Vliet. Well when we go to Slide 47, we
8 made the exact same argument.
9 We incorporated by, we incorporated that exact same argument into
10 Ground 5 from Ground 1. And so we argued that, again, to the extent AFD
11 discloses hoses coming out of both sides of the trailer, you would have to
12 have it out of down the walkway to avoid a tripping hazard.
13 No response in Patent Owner's, in any of Patent Owner's Replies to
14 this. They didn't offer a response to it in their argument. They shouldn't be
15 allowed to offer a new one in their next rebuttal. So let's talk about AFD
16 while we're on the subject.
17 And so what the argument about AFD comes down to and whether or
18 not it discloses hoses deployed from both sides of the trailer is what does the
19 evidence actually show? And our expert's interpretation, yes, we have
20 competing expert testimony on this.
21 But the difference is that our expert's testimony is actually based on
22 facts, not supposition about what might be in the background. There's also a
23 possibility that there is no other equipment in the background and what
24 Patent Owner has suggested is simply wrong. We don't know because it's
25 not based on any evidence.

And on Slide 46, I think Patent Owner talked about the hose guides. They pointed to the hose guides as being evidence of well you might have all of the hoses coming out of one side of the trailer. Well what does AFD actually show?

AFD actually showed that in every one of these holes there are two hoses coming out of it. Two hoses and by simple math, if there's six hoses across the bottom of one side of the trailer, that's 12 hoses. But AFD says that there's going to be 24 fuel reels.

So based on the evidence, based on what is shown in the actual photos of AFD, that teaches a person of ordinary skill in the art that there must be 12 more hoses coming from the other side of the trailer. That's what's shown in the reference not based on speculation, not based on what could maybe be done with these other post-guides.

It's based on the actual evidence and that's what should govern the Board's decisions. Okay, I'm going to move to --

JUDGE DOUGAL: Sorry, can you explain that again? What's, your -- yes, explain that again.

MS. FLANNERY: Sure.

JUDGE DOUGAL: I have a little problem.

MS. FLANNERY: I went through the math a little quick. You're probably right. So the evidence shows for each of these holes at the base of the trailer, there are hose guides. That's true. And Patent Owner's argument as well, each of those hose guides could theoretically incorporate four hoses.

But that's not what AFD actually shows. It only ever shows for all six of those openings in this view, it shows two hoses coming out of each of

1 those openings. And so based on what's shown there in this brochure
2 advertising the capabilities of the system, they only show two hoses coming
3 out of each of those six holes.
4 And because and the math results from because they say that there are
5 24 connections to fuel reels, there must be 24 hoses that are possible coming
6 out of that. Well the only way you get to that if you have six openings on
7 one side with the two hoses coming of it is that you must have the same
8 thing coming out of the other side.
9 It's just it's the way the math works out. So I want to move to some of
10 the arguments about Ground 1 and specifically with regard to Claim 18.
11 Again, Patent Owner presents some arguments about how Van Vliet doesn't
12 disclose having an aisle walkway. It's not necessary to have an aisle
13 walkway in Van Vliet.
14 There is an aisle walkway in Cable. This is another example of Patent
15 Owner and this is Patent Owner's Slide 28 I think is where they specifically
16 made that argument. It might be easiest to look that up in the transcript
17 when you're looking at their argument.
18 That argument is arguing about the references individually not the
19 combination that the Petition makes. And they do this in a number of
20 different places. They also do it with regard to, let's see, with regard to the
21 physical arrangement.
22 So I want to talk about Patent Owner's argument where they talked
23 about how in the Petition we say we're relying on the physical arrangement
24 that's shown in Cable. And so therefore, we must be talking about
25 incorporating that aisle into Van Vliet.

But again, remember what I showed you on the slides of my presentation. The language in the Petition says that a person of skill in the art could use an aisle such as that discussed in Cable. It's not a situation, Patent Owner had fully concedes that they are not arguing bodily incorporation and the Petition itself does not require bodily incorporation.

It talks about an aisle such as what's disclosed in Cable, not just necessarily that aisle. And of course, we have the case law that we've already talked about it and arguing that a person of skill in the art, you don't ignore the modifications the person of skill in the art would make in implementing something as simple as an aisle.

And there's undisputed expert testimony from our expert saying that it would be no trouble to modify the, it would be no trouble to implement an aisle like what's shown in Cable in the Van Vliet. Again, particularly when you orient the reels the way their expert admitted, when you orient the reels facing the direction in which the hoses are going to be deployed, all of that math that they talked about that you only get to a 13-inch, you only get to a 13-inch aisle, remember, that math all depends on orientation of the reels that for one thing Patent doesn't report.

It looked like Patent doesn't require and also argues against the references individually. The Board already acknowledged that we are not using Cables' reel orientation. That's not part of the combination. And Patent Owner doesn't have any, doesn't really address that at all.

All right, I want to go to some of the arguments on the 118 Patent which again for the record, is the IPR that ends in 1236. First of all, Patent Owner argued again that they don't believe the Petition describes these two

1 different theories using the arrangement of having a fluid passage versus
2 actually just using the Coxreels' reel wholesale.
3 Again, we were very, very careful in our slides, and I'm going to go to
4 Slide 59, where we relied on the words from the Petition and the words from
5 the expert declaration. Very specifically talk about commercially available
6 reel components like those in Coxreels.
7 We were very specific on that point. The other thing to bear in mind
8 here too is that -- hold on one second. And again the expert's declaration
9 where he talked about what was it that he was actually using was a common
10 and well-known arrangement.
11 It's not the Coxreels' reel itself. He pointed to a specific feature. He
12 said that notion of having a fluid passage, there's no dispute that he had this
13 and this is something that we cited in our Petition as well because it wasn't
14 just something, an incorporation by reference.
15 We talked about that low profile outlet riser and open front slot design
16 so we talked about that arrangement in the Petition as well.
17 JUDGE DOUGAL: So, Counsel, I mean I do have a concern in your -
18 - I do agree that you have those two lines, but it's difficult to, you know,
19 when you go to your motivation to combine section and multiple times you
20 say Coxreels specific reel, the specific reel of Van Vliet.
21 And, you know, if you look at those sections, it doesn't, there's
22 nowhere -- I'm not sure that it's clear that you are making two separate
23 arguments. You kind of have been loose with the words you're using, but at
24 the same time, you know, when you call out repeatedly this specific reel, can
25 we just disregard that? You know?

Or are you saying that we can only consider those paragraphs on motivation to combine for that one position? You know? When I say specific reel, you know, this argument is limited to this ground or, you know, this alternative ground.

And when I say general teaching in that argument, you know, do we need to parse through here and figure out, okay, well you know, this ground, this is a different ground? You know? How are we supposed to deal with the language that you have in your Petition?

MS. FLANNERY: No, I understand. I understand, Your Honor. I think this is really a matter of notice. I don't think, I don't think it's a situation and I don't think even in our slides we sort of parse out what these paragraphs deal with this rationale and these paragraphs deal with this rationale.

I fully concede we don't have it organized in that particular way. But I do think that there's a lot in the Petition that talks about using the information that's disclosed in Coxreels using the things that it describes and using the features such as what's described in that reference.

The other thing to bear in mind here too, Your Honor, is that we're in an IPR. The only prior art that's available is Patents and printed publications. Coxreels is being used as a printed publication. It's a website, words on a page, drawings on a page.

We are not because we're not running the labs do, we're not talking about incorporating Coxreels as a piece of system art. That's not, just by the nature of these proceedings, that's not part of the prior art that we're, you know, that we can put on.

And so to say that we can't rely on specific teachings, I think sort of undermines the whole point that Coxreels is a website. It's a piece of paper. If we were talking about an article that described these things, we wouldn't even be having this argument because it would be an article that you talked about.

Well, a printed publication discussing a commercially available alternative is no different. And so that's why I think it's appropriate for the Board to still rely on the teachings of the reference in addition to the substitution.

I do think we have proof enough that substitution case and so I just want to make sure that we don't have any, you know, dispute about that as we go through. But I do think there's enough in the Petition that puts them on notice. And we made that very clear in the Reply as well.

So I don't think that there's any argument they were prejudiced somehow by the way we articulated those arguments in the Petition. All right. So I'm just reviewing my notes quickly because I think we've addressed some of the points that I wanted to make in responding to that question.

The argument that Patent Owner made a second ago about how well with regard to that teachings argument that Van Vliet doesn’t disclose a reel structure and so it's hard to know how we would be modifying the Van Vliet reel based on merely the teachings of Coxreels.

First of all, I would note that was an argument they didn't present in their Response which was a new argument presented in their Surreply. But the other and perhaps more important point is that this is a red herring.

There's no dispute that Van Vliet discloses a reel and the 118 Claims, 118 Patent Claims, don't require any specific structure or reel other than in those specific instances if it has a fluid passage to the reel.

And as we confirmed, I think Patent Owner confirmed, they're not trying to imply a specific instruction of reel. So the notion that there has to be some additional structure disclosed in Van Vliet in order to meet the claims is simply a red herring.

It's not required in the claims and so we've done that we needed to do in the Petition. All right, I want to talk about some of the suitability arguments that Patent Owner presented with regard to the use of the Coxreels' reels so this is again now this is talking about the substitution theory.

So with regard to those drawbacks of the Coxreels' reels, remember again, they pointed to issues with brass and using that with diesel. Just one point to clarify, Coxreels discloses brass and nickel as an alternative.

The nickel models included the AFLAS seal and so that's where we get into is AFLAS appropriate, but we don't have to prove in order to establish that Coxreels would be suitable, that a brass element would be suitable for use in diesel because it discloses other alternatives.

So I just wanted to make sure that's clear in the record. With regard to the AFLAS seal, again, they presented some evidence. They talk about how well there would be these temperature ranges at which you would want to be able to use the system and even in south Texas where I live it gets cold.

It gets cold in such that the AFLAS seal could fail. Again, their expert pointed out these as possibilities, but he didn't fully weigh whether or

not this would be a tradeoff that a person of skill in the art would really consider to be outweighing the benefits of using a Coxreels off-the-shelf reel.

Dr. Durham, in contrast, discussed the fact that inside the reel you've got equipment operating. I'm not sure and I agree, I'm not sure he said that those were climate controlled, but you got equipment operating. It's an enclosed space.

He talked about how inside the temperature isn't going to be the same as outside. He spoke about that in his supplemental declaration. He also notably talked about the time of exposure and he talked about how sure even if there is some period of time where those reels might be exposed to temperature, that's not necessarily going to be enough to make the AFLAS seal fail.

These are all things that a person of skill in the art, they're not just going to see the temperature gauge and go yes, that's a safety problem. They're going to consider thermal dynamics. That's what he talked about in his expert declaration.

They're going to consider whether that's actually going to be enough to create a problem. The other thing he pointed out in his expert declaration -- I think this is unresponded, this is unrebutted, is that diesel itself will gel below a certain temperature.

So the notion that you're using the Van Vliet system to dispense diesel, the person of skill in the art already knows that they're going to have problems if inside the trailer it get to too low of a temperature. So here

again, they don't dispute that Van Vliet discloses an appropriate system for dispensing diesel.

There's no dispute about that. And so if it's dispensing diesel, then that sort of undercuts the notion that somehow using an AFLAS seal, well if it's inside that trailer, they're going to have to be dealing with temperature issues anyway. And that's assumed in Van Vliet.

I think Judge DeFranco asked a question about that a little bit. Doesn't Van Vliet sort of take care of the safety issues? I'm not sure if those are the words that you used, Your Honor, but does it already address those safety issues?

Well, Van Vliet already addresses those temperatures used with regard to AFLAS as well because you're dispensing diesel and it's going to gel at a temperature below -- don't quote me, I don't remember if it was negative three degrees or negative two degrees.

That is in Dr. Durham's expert declaration. But he talked about that theory, again, all explaining the tradeoffs that would be weighed by a person of skill in the art. They wouldn't just say AFLAS fails as the temperature of negative 3 degrees Celsius so I'm not going to use it.

That's not how a person of skill in the art uses teachings in the prior art. One other point about safety that I think is worth making, Patent Owner gave an opening statement that talked about, you know, how their system is saved and how much to the extent they go to make it a safe system.

And I think, I believe, those issues only apply to the substitution with Coxreels because I don't think there's an argument about well, there's the

argument with regard to the width of the aisle which I think we've already addressed.

But I think with regard to is there going to be a problem with the reel using it with fuel, I think that only becomes a safety issue in the 118 Patent with regard to the reels. One point I would make is that the patents themselves, the 118 Patent and that common spec of the other two doesn't disclose anything as to why they make, they have a fluid passage through a reel that somehow makes it more safe.

There's nothing in the Patent itself that says oh, well you can't do it according to the prior art because that would be unsafe. It's not in the Patent. The Patent just says have a fuel passage on a reel.

And Coxreels clearly discloses that and we provide a reason why somebody would at least, why a person of skill in the art would at least seek to try to make that modification. And so with regard to these safety issues, I agree with Judge DeFranco that they are already accounted for with regard to Van Vliet.

But also a person of skill in the art is going to understand those issues and they're going to make the modifications that they need to the extent they need them to address a particular application. Finally, the point I want to address secondary considerations that was briefly addressed at the end of the last segment.

I think the briefing in our Reply fully addresses this issue and so I'm going to mostly defer to what's in our Reply. And frankly, there wasn't much response in the Surreply to any of those arguments whatsoever. The

only argument I'll highlight is that it is the Patent Owner's burden to establish nexus. That I do know.

I don't know about ultimately the ultimate proving up of the secondary considerations outweigh, we may have some burden in that. But the initial burden of establishing nexus, that's on the, that is on the Patent Owner.

And not only as I think Your Honors pointed out, their expert doesn't give any explanation as to why he thinks that the FAS products, practice and patents, he doesn't provide any evidence of it on the record whatsoever.

And so we have no way of sort of cross-examining him as to how he did that analysis. And so I would say that we would be prejudiced by relying on simply a statement when he didn't even say how he came to that analysis.

The other main problem and this is addressed in the Reply, is that we have the Fox Factory problem. We have three different patents and Patent Owner uses almost word for word the same secondary considerations arguments with regard to all three patents.

The problem is you, under Fox Factory, that case cited in our Reply, you can't -- that basically requires assuming that the commercial success and the praise and all of that stuff coming from the commercial system is due to all three of the patents.

Well couldn't it just be one as opposed to the other two? That's the quandary that the Fox Factory case points out and there was no response in any of the Patent Owner's papers about that issue. And so I would submit that at least based on that case, even if we could rely on Dr. Rodgers'

conclusion that the products practice the patents, we still have a nexus problem because they can't use that for three patents at the same time.

And so they haven't met their burden on the nexus and so we can't really use the secondary considerations for any relevant in this case. I want to leave the rest of my time to Mr. Chuning to address issues specific to the 955 Patent.

MR. CHUNING: Once again, this is Matthew Chuning on behalf of Petitioner dealing with the 955 Patent which is IPR 2023-01238. May it please the Board. So I think the first place I would like to start off is just to once again reiterate that I think we're going to leave it to our briefing for these claim instruction issues that are raised with respect to the 955 Patent. I do want to point out though that these claim construction issues really only apply to the Ground 1, which is Van Vliet alone, because like I talked earlier today, there really is no dispute about these terms with respect to whenever you add in the disclosure Cable other than this idea about the motivation to combine.

So I just wanted to highlight that and state that we will rely on our briefing for that. So then I'll go to No. 86 and what I want to point out with this is let's see, this is the argument about combining the Cable reference with Van Vliet.

And what I will highlight is that, you know, I gave this presentation earlier. I pointed out that really what Patent Owner addresses is really only one of these two examples. They don't address the kind of independent statement in Cable that it's a conventional rotate on the reel coupling and once again, I think we're kind of just two ships passing in the night.

I didn't hear anything that was really addressing kind of the fact that we had given an additional example and that they only addressed specifically kind of this Coxreels' piece to it. The other thing that I wanted to point out with respect to this is, you know, you heard some arguments from Patent Owner about what was meant by reel configuration.

And they started to say that, you know, what Dr. Durham was saying with reel configuration was something else. But if we look at the Petition, you know, I'm on Slide No. 84, which has the Petition at 37, you see, you know, it's not highlighted, but it says incorporating Cables, aisle walkway and reel configuration showing that these are two separate things.

And that point is only clarified by Dr. Durham during his deposition where he talks about how we're relying on Cable for this internal fluid path. So I wanted to highlight that as well. Next I'll turn to Slide No. 92 and discuss some arguments with respect to DeFosse.

And the thing that I would say here is that, you know, we talked about how it's about DeFosse there's no dispute on what it discloses, about what the claim requires. There's only a dispute about the motivation to combine and with respect to motivation to combine, I think we hear a familiar argument from Patent Owner.

What we hear is that, you know, there are these differences. That there's differences between Van Vliet and DeFosse and that somehow these differences, you know, into a black box, you know they ended up in not being able to combine DeFosse and Van Vliet.

But, you know, in the Petition we argue that these are analogous pieces of prior art. Like KSR specifically blesses the idea that you can use

teachings from analogous pieces of art in other context. And this really wasn't disputed.

You know, the n-ray Visio test, there is no dispute under n-ray Visio that these are analogous art. Patent Owner didn't make that argument. And so now they come in and they say that there are these differences, but there is no dispute that these are analogous.

And so, you know, the question really is whether these differences matter and Patent Owner has not presented an argument that they do. Merely pointing out differences is simply not enough. Okay, finally, I wanted to turn Claim 19 which is the LCR 1 and 2 references. And what I'll point out here -- actually let me grab my --

Can we pull up Page No. 54 of the Petition, 54 and 55? So this is the part of the Petition that's dealing with kind of this combination.

MS. FLANNERY: Wrong Petition. Sorry, one moment.

MR. CHUNING: Right. And there's a few things to point out here. So this is the Petition at Pages No. 54 and 55. Here we see this description, LCR's electronic register designed to be used with a pump. I want to point out this citation to Exhibit No. 1007.

That is the LCR 2 reference. And why this is significant is because, you know, Patent Owner complains that there's this figure that shows up in the reply that's not ever talked about before. Well that figure is in Exhibit No. 1007.

I fully will say though it's on Page No. 3 instead of 4, but the important thing is that we're citing to LCR 2. The figure that is blown up in

the Reply is directly from that piece of prior art and it shows the register being installed in exactly the required position.

JUDGE DOUGAL: Can you explain to me whose figure that is or who made the markups -- is that your declarant that made that somewhere or is that just the attorney that said oh, this looks like this is a pump, I'm going to draw a box here?

MR. CHUNING: It was definitely based on input from our expert. I believe it's in the expert report. I don't have, we can check the expert report.

MS. FLANNERY: I'm not sure that it is, Your Honor, but I think we did discuss that with our expert.

MR. CHUNING: Right.

JUDGE DOUGAL: Okay so there's nothing in the record that shows your expert saying this is a pump and this is, I mean obviously we know what the register is, but so it looks a lot like just an attorney argument.

MS. FLANNERY: Is it okay if I --

JUDGE DOUGAL: Sure.

MS. FLANNERY: -- chime in here, sir? I'm sorry.

JUDGE DOUGAL: Yes.

MS. FLANNERY: The point that I think I would make is that I think it's true that our, that our expert did not point to that particular figure. However, he did specifically opine that if a person of skill in the art would have installed the register directly downstream of the pump which is exactly what's shown in that figure.

And so I do think we have the expert testifying about how that arrangement would be the most obvious and, of course, there's just that

photo. We found that photo and showed that yes, that was a photo that did show that was obvious.

So I think for the record we wouldn't say that we are relying on express disclosure over using that to support the expert's testimony.

JUDGE DOUGAL: So, but I mean from that figure, is there any way for me to know if that's downstream of the pump or upstream of the pump? I mean, it seems like it's a very generic figure of I guess you guys are asserting this is a pumping system, but I'm not sure that the evidence to show that is a pumping system in the record.

MS. FLANNERY: I think that's a fair criticism, Your Honor. I think the way we were trying to use it was to show it supported his testimony that we did say in the Petitioner that that would be the most obvious place to put it.

JUDGE DOUGAL: Okay.

MR. CHUNING: You Honor, I think my time is up.

JUDGE DEFRANCO: Counsel, see, as far as that citation goes to Page 4, I actually interpreted it as a citation to Page 4 because Page 4 actually refers to a pump. It says a simple pump and pump delivery system.

And I think you had said that those and others, you said that, you said that in 1006 it also mentions a pump. So I took those citations, you know, at least that they are describing a pump for that register.

MR. CHUNING: Yes, Your Honor.

JUDGE DEFRANCO: As far as the location of the register and where it's functioning downstream, that's a different question.

MR. CHUNING: Yes, I have one more sentence, but I think my time is up.

JUDGE DEFRANCO: Go ahead.

MR. CHUNING: Do I need to finish?

JUDGE DEFRANCO: Yes.

MR. CHUNING: So if you'll scroll down onto Page 55, the only thing that I want to point out here is the citations to the expert report at 224 and 26. There are two theories here. So you're seeing the first one here that talks about obtaining the most accurate flow measurement possible.

And that's explained in more detail in the expert declaration, but then if you move on down just a little bit more, you see that alternatively this is used downstream as an obvious design choice. And there's an insight back to that same 224 and 226.

And that 226 argument is the one that we were speaking about earlier about the expert making this only a finite number of different ways of incorporating this. And that paragraph in the expert report uses the same heading right there talking about how it's an obvious design choice.

It's obviously reflective of the argument that we made in the Petition. That's the only thing I wanted to highlight.

JUDGE DOUGAL: Okay.

MR. CHUNING: Thank you, Your Honor.

JUDGE DOUGAL: Thank you, counsel. Any further questions for Petitioner?

JUDGE DEFRANCO: No.

JUDGE MARSCHALL: No.

JUDGE DOUGAL: Okay, thank you. All right, Patent Owner whenever you're ready.

MR. SZYPA: Okay just a few brief points from me and then I'm going to turn it over to lead counsel, Mr. Koziarz. Just, we don't object, but to the extent -- just want to make sure we aren't waiving any argument against that annotated figure of the proper analysis here that was just shown.

We still believe that to be new. I was asked earlier about whether our expert addressed or how our expert addressed the various options and for putting the register I would just like to note for the record Exhibit 2011 paragraphs 194 and 199 address those various options and advantages and drawbacks of each.

I was also asked about the burdens and the shifting of burdens for secondary considerations. I did note that Patentee bears the initial burden. What I wasn't sure about was if and when that shifts. I have a case, Demaco Corp. v. F. Von Langsdorff Licensing, 851 F.2d 1387.
It's a Federal Circuit case and it says the Patentee bears the burden of providing a nexus with regard to secondary considerations, but after the Patentee makes their case, the challenger may then produce rebuttal evidence.

Also there was mention of cross-examination and an injustice when it came to not being able to cross-examine Dr. Rodgers on these points. I point out that they took his deposition after he offered them in his declaration. With that, I'll turn it over to Mr. Koziarz. Actually, can I make one more point?

JUDGE DOUGAL: Sure.

MR. SZYPA: On the Fox Factory case that was just mentioned, I just want to point out that case holds that where a product embodies claims from two patents of presumption of nexus can be appropriate only if the claims of both patents generally cover the same invention.

So there's, Petitioner hasn't established that, the same invention isn't covered by these three different patents here. And we're here in a consolidated hearing today over, you know, grounds that all use the same base reference in challenging the various patents so. Thank you.

MR. KOZIARZ: All right, thank you, Your Honor. I just want to leave you with a few points today. One is a reminder, again, that the burden here is on the Petitioner to establish its grounds and I think what we've seen today is on a lot of those grounds there's been a clear retreat to other positions that either were not supportive or were not well supported in the Petitions.

For example, on the issue of teachings of Coxreels versus physical arrangement, it really seems to me that Petitioner is backing off to try to make you focus only on two lines from the Petition or things that might be buried somewhere in the expert report.

But very clearly in their section on motivation and rationale, they've stated that the ground is incorporation of Coxreels' reel. So let's try to keep focus on that. Another point I would like to make is about hoses coming out of both sides of the trailer.

They've asserted that is the most obvious arrangement. I don't think they have supported that. They have one self-created figure from their

1 expert that purports to show that, but as we've noted before, where do those
2 both sides come from?
3 There's no prior teaching that has that shown in the slides. This is
4 slide with Cable and Van Vliet on it. Van Vliet's hoses all come out one
5 side. Cable's hoses are all at one side, but where is the reference here that
6 has both sides?
7 Well it could have been maybe AFD, but we looked at AFD and
8 again, the burden is on Petitioner here to factually prove that AFD has hoses
9 coming out both sides. And the fact of the matter is, we can't see what's on
10 that other side of AFD. They can speculate based on windows, but equally
11 as important are in those windows there's two empty slots where the other 12
12 of those 24 hoses could come out of.
13 And that suggests as well that all the hoses would come out of one side, not
14 the other side. So what we're left with is speculation on their part of what
15 might be going on, but nevertheless, I mean their efforts is already admitted.
16 We can't see inside here.
17 We don't know how the reels are arranged. There's no, it doesn't
18 necessitate an aisle walkway so hope AFD is not definitive on that point
19 either. Another thing that we've seen Petitioner retreat to is pointing to
20 language that is an attempt to try to broaden some of their grounds they've
21 mentioned such as the aisle walkway in Cable or like the reel in Coxreels.
22 Well what does that really mean?
23 Such as or like? I mean, if it's we need prior art in front of us to be
24 able to evaluate and we have a right to know what the actual combination is

not if it's like some other reel, but not Coxreels. What does that even mean? That's not a combination that's presented here.

It's not in any of the grounds. It's Coxreels. That's a reference they've pointed to and relied on and it's the physical arrangement of that. Not some teaching that they've later tried to retreat to because they've realized that there may not even is not good here.

And again, Coxreels brings up another point I want to make which was for you to keep in mind about the safety of the systems because Van Vliet had some safety built into it. Sure it does, but not to the full extent that someone might that's an ordinary skill in the art might take into consideration.

For example, on the matter of brass in Coxreels' reel, even if Van Vliet took that into consideration because it uses diesel fuel, my understanding is that diesel fuel might gel at a much lower temperature like minus 30 C.

So if the Coxreels' reel advances it up to minus 5 or minus 3, that's a pretty big difference. So while Coxreels might have had some of that built in, there's no need to make it worse by incorporating a reel and Coxreels that has brads.

And Petitioner just a moment ago pointed out that there is some other options in Coxreels about a nickel inlet and while that's true, the reels that have that do have the AFLA seals. So all of the reels there either have the brass inlet or the AFLA seal so whether it discloses a nickel inlet or not I think is beside the point.

It's going to have a problem with either a brass inlet or an AFLA seal. Another thing I wanted to comment on was, again, they're pointing to teachings they say now in Coxreels, but I think they've left it to us and to the Board to determine when are they talking about background versus a physical arrangement and they're leaving it up to you to determine which I don't think is proper.

For instance, when they have to rely on dimensions, then it doesn't seem to be teachings, it seems to be the physical properties of the reel in Coxreels, but in other instances where it's just a passage, then now they're selectively saying that oh, it's the teachings there not the physical arrangement so I don't think that was clear in the Petition. Initially they've tried to make that differentiation now, but it's an artificial differentiation that wasn't made originally.

JUDGE DEFRANCO: Counsel, I think an issue with your argument is that things tend to crystalize over time. And, you know, the back and forth between the parties tends to crystalize what the issues are that we're going to have to decide.

And at no time do I see that you've been prevented from responding to all of these arguments. So if you think that's the case, you know, or the instances where you haven't had adequate opportunity to respond, your argument was previously not made.

MR. KOZIARZ: Yes, I don’t think we've had full opportunity to respond to, you know, if the drawing really was incorporating the flow passage of Coxreels' reel into Van Vliet, that's not something that was clear to the Petitioners at all.

And we didn't interpret it that way because of the quotes that I showed before. So I don't think we've had an opportunity to respond to that. Our expert wasn't able to develop any arguments on that because to us that just wasn't the ground.

It was not until later that Petitioner backed off of that physical arrangement in a portion of the ground and tried to focus on something else which was incorporation of teachings or the passage itself which, again, as I explained earlier, I don't think makes sense because the reel in Van Vliet doesn't disclose any structure.

And so we're also entitled to know what is the combination that they're proposing. If there's no structure clear in Van Vliet, what exactly were they setting forth if it's just the flow passage? What are they -- how is that combination being made?

I mean, we have a right to know that and they haven't explained that. And only brought it up later on. But in all this, last point I would like to make is, again, for you to keep in mind the safety considerations in all of this.

There are some pretty serious consequences that can happen in the face of refueling problems, fires, personal injury and there's no reason why one of ordinary skill in the art would take the risk of using a brass fitting or an AFLA seal that could fail.

You know, we can debated about the particulars of that, but at the end of the day, you know, a fire in someone's life is not worth, you know, splitting hairs over what might or might not happen. There's just no reason to take that risk at all.

And it would be better just to stay away from that altogether. And we believe that would drive someone away from using a reel as in Coxreels. So with that, I would like to conclude unless there's any further questions.

JUDGE DEFRANCO: None from me.

MR. KOZIARZ: Thank you very much.

JUDGE DOUGAL: All right. Thank you all for appearing today. We appreciate the work that you've put into the presentations and up to this point as well. We also want to thank Mr. Chuning, our LEAP practitioner for coming and participating in the hearing. We always enjoy hearing from the younger attorneys or newer attorneys in these proceedings and giving them an opportunity to present and participate.

So we will take this case under advisement and our hearing is now adjourned.

MS. FLANNERY: Thank you, Your Honors.

(Whereupon, the above-entitled matter went off the record at 2:29 p.m.)

IPR2023-01236 Patent 10,815,188 B2
IPR2023-01237 Patent 9,586,805 B1
IPR2023-01238 Patent 10,974,955 B2

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