

IN THE 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.

Case No. IPR2023-01238

Patent 10,974,955

**PATENT OWNER'S SUR-REPLY
TO PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE**

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Ex. 2001	Dictionary definitions
Ex. 2002	WO 2007/087849 with translation
Ex. 2003	U.S. 2,769,572
Ex. 2004	Parent Application 15/290,304 File History
Ex. 2005	GB 2485832
Ex. 2006	Sister Application 15/673,730 File History
Ex. 2007	U.S. 3,826,275
Ex. 2008	Jayanti, "Bends Flow and Pressure Drop"
Ex. 2009	Keulegan et. al., "Pressure Losses For Fluid Flow In Curved Pipes"
Ex. 2010	Haile Parent Application
Ex. 2011	Expert Declaration of John Rodgers
Ex. 2012	Intelligencer article (digital print The Intelligencer, January 31, 2020)
Ex. 2013	US Patent 11,305,979
Ex. 2014	Waterman, "Better Safe Than Sorry"
Ex. 2015	World Economic Forum, "Trust Challenge Facing the Global Oil & Gas Industry"
Ex. 2016	Intentionally omitted
Ex. 2017	Intentionally omitted
Ex. 2018	Intentionally omitted
Ex. 2019	Intentionally omitted
Ex. 2020	Intentionally omitted
Ex. 2021	Patents of Rick Shock
Ex. 2022	US Patent 10,633,243

Ex. 2023	ASTM D975 Standard Specification for Diesel Fuel Oils
Ex. 2024	CRC Report Diesel Fuel Storage and Handling Guide
Ex. 2025	AFLAS TM Reg Serial 73310396
Ex. 2026	Rubber Technology, “TFE/P (Aflas®)/FEPm rubber quality” (https://web.archive.org/web/20160404102358/http://rubbertechnology.info:80/en/-rubber-compounds/tfep-aflasr--fepm-rubber-quality/)
Ex. 2027	AFLAS technical brochure (http://web.archive.org/web/20161221181920/http://agcchem.com/component/jdownloads/finish/9-aflas-fluoroelastomers/7-aflas-fluoroelastomers-technical-brochure?Itemid=0)
Ex. 2028	Transcript of Deposition of Robert Durham
Ex. 2029	Energy and Power Engineering, 2023, “Analysis of Emissions Profiles of Hydraulic Fracturing Engine Technologies”
Ex. 2030	Brent Oil/Fuel Hose 3106 (http://web.archive.org/web/20160713193942/http://www.desihose.com/viewproduct.aspx?pid=192)
Ex. 2031	FAS Virtual Marking page (https://fluidautomationstation.com/patents/)
Ex. 2032	Rodgers CV
Ex. 2033	US Patent 2,425,848
Ex. 2034	US Patent 2,603,312
Ex. 2035	US Patent 3,196,982
Ex. 2036	US Patent 3,216,527
Ex. 2037	US Patent 1,829,173
Ex. 2038	US Patent 3,430,730
Ex. 2039	Well Completion 101 Part 3 (https://www.enverus.com/blog/well-completion-well-stimulation/)
Ex. 2040	Atlas Oil’s Rick Shock Named “Industry Leader ”At Texas Oil and Gas Awards

Ex. 2041	<i>FAS v. Comanche Gas Solutions</i> Complaint
Ex. 2042	<i>FAS v. Permian Global, et al.</i> Complaint
Ex. 2043	Ortoleva Declaration
Ex. 2044	Information Disclosure Statement
Ex. 2045	Transcript of Supplemental Deposition of Robert Durham

I. INTRODUCTION

Petitioner's Reply retreats from its original grounds with new arguments and bases for its grounds, as well as mischaracterizations of PO arguments. For example, Petitioner attempts to introduce a new annotated figure to backfill analysis that was not in its Petition. In other instances, Petitioner mischaracterizes PO's arguments in order to rebut those mischaracterizations instead of the actual arguments. And in another instance, Petitioner seems to attempt to evade the word count limit by referencing arguments from its expert's supplemental declaration rather than stating the arguments in its Reply. In all of these instances and more, the Board should reject Petitioner's arguments.

II. CLAIM CONSTRUCTION

A. Claims 1[e], 11[e] and 19[f]

Despite the phrase "hose connected with a different one of the reels" being in dispute, Petitioner urges that no construction is necessary. This is wrong. Petitioner alleges that IPR2023-01237 confirms that no construction is necessary. There is no final decision in IPR2023-01237, and unlike in IPR2023-01237, the meaning of the above phrase is in dispute in the present IPR. Indeed, the Board even confirmed as much by adopting a preliminary construction for purpose of the Institution. Inst. Dec. at 8. It is thus of no consequence whether there was a construction in another IPR, which does not even contain the same phrase in its claims, nor does Petitioner make any legal

argument that constructions in another IPR are binding for the different claims of the ‘955 Patent in the present IPR.

Petitioner’s argument that “wound” or “winding” means “connected” defies the intrinsic record. Reply at 2. Use of these different terms in the ‘955 Patent provides an inference the terms have different meanings. Moreover, incredibly, Petitioner seems to advocate that if the ends of the hose are explicitly mentioned in one instance but not another, that the hose somehow ceases to have ends. Reply at 3, FN1. A POSITA knows that a hose has two ends that have couplings for joining the hose to other components. As a result, a POSITA would have understood that a hose is “connected” to another part when the end of the hose is coupled to that other component. POR at 14; Ex. 2011 at ¶¶70-77. Petitioner further complains that PO’s construction would improperly read a connector end into the claims, though PO does not propose that in its construction and Petitioner fails to explain how, or even whether, a POSITA would consider a hose to be useful without the ability to couple the hose ends to mating components. Accordingly, the intrinsic record, as well as *common sense*, supports PO’s construction.

B. Claim 1[e] “reels are connected to be fed from the [] manifold”

Unable to address PO’s construction on the merits, Petitioner instead paraphrases PO’s argument and then address its own paraphrase. Reply at 3. Petitioner recasts PO’s construction by asserting that “in other words” the reels and the manifold must be fluidly connected. But PO made no such argument. Indeed, the Board already correctly

pointed out that “to be fed” limits the type of connection to a fluid connection between the manifold and reel. Int. Dec. at 8. Moreover, clearly the reason for Petitioner’s attempt to dodge a construction is that, as the Board previously recognized, Petitioner’s grounds do not fully address this limitation. The Petition does not include a discussion of how the reels are connected to be fed from a manifold (*see generally* Pet. 26–27), and the Petition does not attempt to establish any type of relationship between the reels and the manifolds. Inst. Dec. at 11.

Accordingly, the phrase “reels are connected to be fed from the [] manifold” should be construed to mean that the connection between the reels and the manifold is of a type that permits fluid to be provided from the manifold to the reels.

III. GROUND 1: NOT ANTICIPATED OR RENDERED OBVIOUS OVER VAN VLIET ALONE

A. As to anticipation, Petitioner misses features of claims 1[e], 11[d], and 19[e].

On reply, Petitioner advances the new argument¹ that the relationship between the reels and manifolds is implicit based on Van Vliet’s express disclosure of a relationship between the reels and the hoses. Reply at 4. Nowhere does this argument appear in the Petition. Even more incredibly, despite not having argued for a

¹ A petitioner “may not submit new evidence or argument in reply that it could have presented earlier [in the petition], e.g., to make out a prima facie case of unpatentability.” US Patent Trial and Appeal Board, Consolidated Trial Practice Guide 73 (Nov. 2019).

construction, Petitioner asserts that nothing in the claims excludes the arrangement in Van Vliet under the “proper” constructions of those phrases. Reply at 4. Petitioner had the opportunity to ask for a construction, as well as to argue that the claim limitation was implicit in Van Vliet, but it failed to do so.

Petitioner’s argument that the relationship between the reels and manifolds is implicit in Van Vliet is unsupported. Petitioner cites to a paragraph in Van Vliet (Ex. 1004, [0014]), but Petitioner fails to provide any analysis of that citation or explanation of how it allegedly supports Petitioner’s conclusion. Reply at 4. Even worse, the cited paragraph [0014] from Van Vliet does not even discuss a manifold, reels, or hoses. Petitioner’s argument is thus conclusory and must be rejected.

Petitioner also recycles its argument that Van Vliet shows a single fluid stream. Reply at 4-5. The Board, however, already correctly disagreed with this position. Ins. Dec. at 11.

Petitioner now also newly asserts that since Van Vliet discloses a spill containment pan positioned to catch fluids leaking from the reels, fluids must be flowing through the reels, and the reels must be connected to a manifold to receive fluid. This was not a basis of Petitioner’s ground. Even if this argument was included in the expert declaration, arguments must not be incorporated by reference from one document into another document into the Petition. 37 CFR § 42.6(a)(3). Accordingly, the untimely and conclusory assertion does not support Petitioner’s ground. See also *Intelligent Bio-*

Systems, Inc. v. Illumina Cambridge Ltd., 821 F.3d 1359, 1369-70 (Fed. Cir. 2016) (Board rightly refused to consider reply brief arguments advocating a “new theory” of unpatentability under 37 C.F.R. §42.23(b)); *Apple Inc. v. e-Watch, Inc.*, Case IPR2015-00412, slip op. at 44 (PTAB May 6, 2016) (Paper 50) (“‘Respond,’ in the context of 37 C.F.R. §42.23(b), does not mean embark in a new direction with a new approach as compared to the position originally taken in the Petition. Accepting such belatedly presented new arguments would be unjust to the Patent Owner.”).

Alternatively, even if Petitioner’s new argument is considered, Petitioner has failed to explain how the containment pan inherently requires fluid flowing through the reels. Leaking fluid does not necessitate a fluid passage running through the reels. All that would be needed is for the pan to be positioned below in order to catch the fluid, which would be true regardless of the source of the leak, such as fluid leaking from another source onto the reel and then from the reel into the containment pan.

B. Petitioner does not sufficiently explain how “design choice” renders claims 1[e], 11[d], 11[e], 19[e], and 19[f] obvious.

Petitioner’s reply does not revive its failed “design choice” argument. Reply at 5. “Design choice” was an afterthought in the Petition. It was only buried in a footnote in the Petition and lacked explanation of a “convincing line of reasoning,” i.e., it was not a developed argument. POR at 21. The lack of development is further evidenced by Petitioner’s failure to make any argument pursuant to a legal framework for *design*

choice. In recognition that its ground has failed, Petitioner now improperly urges the Board to accept its previously unpresented “finite number of solutions” analysis. The Board should decline to do so. “In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016). Furthermore, in *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1357 (2018), the Supreme Court explained that a petition guides the life of the litigation, and the petitioner's contentions “define the scope of the litigation all the way from institution to conclusion.”

Petitioner’s new “finite number of solutions” argument is flawed. Reply at 6-7. Although Petitioner asserts a POSITA would have “good reason” to pursue either solution, Petitioner fails to articulate what that reason is. Accordingly, the Board should reject this new argument as well.

Additionally, Petitioner’s statement of the “problem” lacks basis. On reply, Petitioner cites no factual basis for this “problem.” Without such a basis, Petitioner’s analysis is a meaningless exercise. Indeed, Petitioner’s statement does not even involve a problem, as it expresses no discernable difficulty or challenge that is to be addressed, let alone one that is “solved” by Petitioner’s two solutions. As there is no “problem” *per se*, there can be no “solutions.” Petitioner obviously formulated its analysis based on impermissible hindsight.

**IV. GROUND 2: THE CHALLENGED CLAIMS ARE NOT OBVIOUS
OVER VAN VLIET IN VIEW OF CABLE**

**A. Petitioner fails to articulate a rationale or motivation for modifying
Van Vliet with the reel of Cable.**

Petitioner appears to suggest that it is immune from having to provide a proper reason to combine the elements as claimed, mistaking PO's argument for an argument that motivation is required claim-by-claim, which PO did not argue. Reply at 11; POR at 22-24. As known under *KSR*, "[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. . . . [I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, (2007). "Obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention." *Unigene Labs, supra*. Petitioner's rationales and motivations point to generalities, and none of those generalities are directed particularly to combining Cable's reels and connections into Van Vliet. POR at 22-23. As Petitioner does not explain how its generalized rationales and motivations prompt combination of the prior art elements in the way claimed, Petitioner has failed to meet its burden and, in doing so, has also exposed that

its grounds are actually an improper hindsight reconstruction of the claims of the '955 Patent.

Petitioner also newly offers that there are only a finite number of solutions to solve the problem of using reels to support hoses for distributing fuel to other equipment in Van Vliet. Reply at 13. For similar reasons as discussed above, such an analysis is a meaningless exercise. See section III.B. Petitioner then asserts that the reels and connection would have been obvious because these were “well-known.” Reply at 13. But mere existence of these components does not suffice as a reason to combine. “It does not suffice to simply be known. A reason for combining must exist.” *Virtek Vision Int'l v. Assembly Guidance Sys.*, 97 F.4th 882, 888 (Fed. Cir. 2024). See also *Unigene Labs, supra*. Moreover, none of Petitioner’s analysis changes that Coxreels’ reel has a brass inlet and AFLAS seal, which as PO explained, would have suggested to a POSITA that Coxreels’ reel had substantial disadvantages.

Petitioner further contends that PO does not challenge these rationales (or address EX1016 or EX1027) at all. However, the Petition did not assert a finite number of solutions to solve the problem of using reels to support hoses, nor did the Petition make the arguments that its expert stated. Concerning Ex. 1016 and Ex. 1027, the Petition does not cite Ex. 1027, let alone explain its relevance or how it supports the grounds, and Ex. 1016 is cited only twice (Petition at 38, 44) and in neither instance does the Petition explain its relevance or assert it for a rationale or motivation. Rather, in view

of PO's arguments, Petitioner is now attempting to backfill its grounds with evidence that it never asserted for that purpose.

Petitioner then contends that PO's attack on Coxreels misapprehends the Petition. Reply at 15. Petitioner newly purports to rely on Coxreels as evidence of a POSITA's background knowledge and commercially available alternatives that would have motivated a POSITA to use Cable's teaching in Van Vliet. However, this is nothing more than a mere assertion that certain hose reels exist, which again, does not suffice as a reason supporting obviousness. See *Virtek Vision Int'l, supra*.

B. A POSITA would not have looked to Cable to modify Van Vliet.

Petitioner's reply to PO's argument mischaracterizes PO's argument and then rebuts that mischaracterization. Petitioner asserts that PO argues that Cable's teachings are inapplicable to Van Vliet. However, that is a mischaracterization. PO argued that a POSITA would have understood that the equipment in Cable's truck is configured for fast service in a roadside environment and that a mere presence of reels and hoses in both [Cable and Van Vliet] would not have motivated their combination. POR at 32-36.

Concerning a center walkway, Petitioner contends that an equally plausible interpretation of Cable is that distance 22 is sufficiently wide for both a walkway and storage area because Cable does not state that items in the storage area would block the walkway. Reply at 17. Petitioner's assertion is flawed for several reasons. First, it defies

common sense. Cable states that there is “a storage area and a walkway therebetween.” Ex. 1005, col. 1, ll. 42-48. Cable does not make a distinction that some of the space is reserved for the walkway and some of the space is reserved for storage as Petitioner seems to insinuate. That is, the space is both walkway and storage. That being the case, insofar as there are any items in the space, those items would block the space as a walkway, at least in part. Second, any such space would be inherently limited in size, as the trailer as in Van Vliet is 96 inches wide. The Coxreels 1125 Series reel that Dr. Durham contends would be used in refueling has a width of 41.5 inches. Arranging two reels across from each other on opposed sidewalls as Petitioner asserts, oriented as in Cable, would take up at least 83 inches and leave at most only 13 inches there between. Such a narrow width would violate OSHA standards and would not be an aisle *walkway* since it would be difficult or impossible to traverse at that size. Using that narrow space to also then store items would further impede use as a walkway. See POR at 39. A POSITA would understand that it is not plausible in a system like Van Vliet’s to have a space that is both a walkway and a storage area. PO further notes that its argument that the proposed arrangement of reels deployed on opposing sides of an aisle walkway would not be likely to make Van Vliet’s system more traversable was not disputed by Petitioner. POR at 37.

Petitioner also makes a blatant attempt to incorporate arguments from its expert’s supplemental declaration. Reply at 16. There, rather than stating the argument,

Petitioner in footnote 12 refers to Dr. Durham's rebuttal without stating the rebuttal arguments. This is completely improper and should be rejected. It is an obvious attempt to evade the word count limit, as Petitioner's Reply is close to the limit without the argument.

Petitioner also wrongly suggests that PO's argument concerning Cable imposes a bodily incorporation requirement. Reply at 18. However, the grounds purport to apply Cable's walkable reel deployment compartment with a central aisle walkway and Cable's reels deployed on opposing sides of the walkway adjacent to the sidewalls to Van Vliet (Petition at 34). The grounds rely on Cable's physical arrangement, explaining that "[a]lthough *Vliet* does not detail the ***physical arrangement*** of all components in its trailer, *Cable* does and describes a central walkway, reels arranged on opposed sides of the walkway adjacent to sidewalls, orientation of pumps and manifolds, use of stacked rows of reels arranged on racks, and the like" (emphasis added). Petition at 35. Even further, Petitioner asserts that the combination with Cable makes Van Vliet's system more "traversable" (Petition at 34). Such an allegation could only have meaning if it assumes a physical condition resulting from the combination that would be traversed. Accordingly, PO's arguments are not based on bodily incorporation and are merely commensurate in scope with the grounds. .

On reply, Petitioner also complains that PO's arguments concerning Cable's intended use are unsupported by evidence. However, this is not true. PO provided

numerous citations to Cable and to its expert that relied on those citations, most of which Petitioner did not even attempt to rebut other than with conclusory statements. For instance, Petitioner asserts that *Cable* does not even mention “roads,” “streets,” “highways,” or “shoulders,” yet Petitioner never addresses underlying facts upon which those conclusions were based (e.g., a drivable road vehicle, a driver compartment, service vehicle, etc.). Moreover, when it does attempt to controvert PO’s argument, Petitioner alleges that PO is rebutted by its own evidence but then neglects to explain how. Petitioner then falls back on its assertion that Cable is analogous, which even if true, does not itself establish motivation to combine the prior art features as claimed. Simply put, even if analogous, the prior art must be considered as a whole and there must be a reason to combine the prior art elements as claimed. See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550 (Fed. Cir. 1983) (“prior [art] must be considered in its entirety, i.e. as a whole.”); *In re Enhanced Security Research*, LLC, 739 F.3d 1347, 1360 (Fed. Cir. 2014) (citing *Panduit*, the Federal Circuit held that “[t]hus *Panduit* explains that section 103 does not permit a court to stitch together an obviousness finding from discrete portions of prior art references without considering the references as a whole.”).

C. Cable is not informative of a practical arrangement for Van Vliet.

In further effort to avoid PO’s arguments, Petitioner again resorts to accusations that PO is applying an improper bodily incorporation standard. Reply at 9-10. However,

this is a strawman that blatantly ignores PO's explicit argument. PO's argument is directed to what a POSITA would have understood from the prior art, i.e., Cable's teachings. POR at 32-36. Indeed, undermining its own point, Petitioner quotes PO's assertion that "Cable *teaches* that the walkway is also a storage area." Reply at 9. Clearly, PO is arguing the teachings, not bodily incorporation. Moreover, as discussed above, PO's arguments are commensurate in scope with the ground.

Petitioner further asserts that PO's argument does not address whether Cable's teachings can be applied to Van Vliet but instead targets physical incorporation. Reply at 10. However, the arrangement of equipment in Cable is part of its teachings, and consideration of those teachings relative to Van Vliet is thus fair for consideration. Indeed, a rebuttal of Petitioner's grounds requires as much since the ground is based on employing Cable's walkway and reels on opposed sides of the walkway to Van Vliet. Petition at 34. In other words, Petitioner has raised this issue and cannot fairly complain that PO has responded to the grounds it proposed.

Petitioner also points out that the '955 Patent claims do not require an aisle walkway of particular width. Reply at 18, FN13. Claim 3, however, does recite an aisle *walkway*, which at a minimum suggests that the aisle is of a size that reasonably permits use as a walkway in the context of a distribution station.

Moreover, the context of the prior art matters to a POSITA. In order to avoid aspects of the prior art that do not fit its conclusions, Petitioner argues that the '955

Patent claims do not recite certain features. But this is of no moment. The ‘955 Patent claims led Petitioners to attempt to combine Van Vliet and Cable. To support this combination, the entire disclosure of the prior art must support the combination. *Panduit Corp. v. Dennison MFG., Co.*, 810 F.2d 1561, 1577-78 (Fed. Cir. 1987) (“The district court ... treated no claim, nor the entire prior art, nor any prior patent ‘as a whole,’ but selected bits and pieces from prior patents that might be modified to fit its legally incorrect interpretation.”).

V. GROUNDS 3 AND 3A: PETITIONER FAILS TO ACCOUNT FOR THE CLAIMED REGISTER LOCATION AS TO CLAIM 19[d]

A. Petitioner does not provide sufficient support for the claimed location of the register.

Petitioner introduces another new basis for one of its grounds. This time, Petitioner attempts to introduce an annotated, blown-up figure that it never before showed or explained – not in the Petition and not in its expert’s declarations. Reply at 19. Despite its inclusion and reliance on other figures from Ex. 1007, the Petition did not include that particular annotated figure that introduces in its Reply, or any explanation of it. Simply put, Petitioner’s grounds did not rely on this annotated picture. Moreover, the features Petitioner now highlights in the image are ambiguous without being blown up and adding Petitioner’s new annotations. In fact, neither Petition or its expert apparently appreciated the presence of the features that Petitioner now alleges are present. Although the picture appears to be from Ex. 1007 at 3, the original picture

is much smaller than Petitioner's annotated version and lacks resolution. The features were not otherwise apparent from, or identified in, the picture alone until Petitioner added its annotations and explanation. Nor has Petitioner explained with any supporting evidence how or whether a POSITA would have appreciated those details that Petitioner now identifies. This is clearly a new basis for the ground that is based on new evidence, and the Board should reject it.

But even if the annotated, blown-up figure is considered, it is an unsupported attorney argument. It is based on counsel's annotations and is not supported by citation to its expert, as Dr. Durham did not apparently testify as to what the figure shows.

Petitioner then also argues that it would have been obvious to install the register directly downstream from Van Vliet's pump "to provide accurate flowrate measurements and invoice the total amount." Reply at 19-20. However, Petitioner fails to explain how installing the register directly downstream from Van Vliet's pump would provide "accurate flowrate measurements and invoice the total amount." Therefore, Petition has not established any tie between the proposed location and its alleged benefit.

Petitioner also newly asserts that it would have been an obvious design choice "to simplify the system," citing Petition at 55. The assertion "to simplify the system" is a conclusory statement, as Petitioner fails to explain in the Petition or on reply how the alleged choice would simplify the system or what such a simplification is even relative

to. Again, Petitioner has not established any tie between the proposed location and its alleged benefit. See POR at 42.

Petitioner next asserts that a POSITA would have been motivated by the “system’s cost and complexity” to use the smallest number of registers. Reply at 22-23. However, this conveniently ignores the benefit of having additional registers, which PO pointed out with support from Dr. Rodgers. Additional registers would be beneficial because it would allow flow measurement to each individual hose, such as for separate tracking of fuel provided to different customers. POR at 43; Ex. 2011 at ¶198. Petitioner has failed to address this.

In yet another new basis, Petitioner asserts that there is a finite number of design choices that achieve the aforementioned benefits and goals. Reply at 21. This basis was not advanced in the Petition and should be rejected. Even if there were a finite number, which PO does not concede, this does not relieve Petitioner of its obligation to explain a reason, with factual underpinnings, for its proposed location, which it has not done. Nor has Petitioner anywhere advanced or explained an “obvious to try” rationale.

Lastly, Petitioner seems to suggest that just because there is not a teaching away, that its proposed location would have been obvious. This, however, is not the law and seeks to improperly shift the burden of proof to PO. “It does not suffice to simply be known. A reason for combining must exist.” “The mere fact that these possible arrangements existed in the prior art does not provide a reason that a [POSITA] would

have substituted.” *Virtek Vision Int’l v. Assembly Guidance Sys.*, 97 F.4th 882, 887-888 (Fed. Cir. 2024). Petitioner fails to provide any reason that would have prompted the claimed location. See also *KSR*, *supra*. Its proposed location is an arbitrary choice in effort to reproduce the claims of the ‘955 Patent in hindsight.

VI. GROUNDS 4 AND 4A SHOULD BE DISMISSED BECAUSE THE RATIONALE IS INSUFFICIENT AND A POSITA WOULD NOT BE MOTIVATED TO COMBINE VAN VLIET AND DEFOSSE.

A. Petitioner's rationale and motivation for DeFosse is insufficient.

It appears as though the only way Petitioner is able to address many of PO’s arguments is either by retreating to new arguments/bases or by mischaracterizing PO’s argument. In this instance, Petitioner misrepresents PO’s argument as being based on Petitioner relying solely on Van Vliet and DeFosse being analogous art to establish a motivation to combine. This is demonstrably false, as PO discusses numerous reasons in rebuttal of Petitioner’s alleged motivation and rationale. POR at 44-48.

Petitioner also asserts that “[i]ncorporating *DeFosse*’s series pumping into *Vliet*’s fuel delivery system would merely involve combining prior art elements according to known methods to yield predictable results - that is, enabling *Vliet*’s system to utilize pumps in series.” Reply at 22. This does not relieve Petitioner from having to articulate a reason for combining. “A reason for combining must exist.” “*KSR* did not do away with the requirement that there must exist a motivation to combine various prior art references in order for a skilled artisan to make the claimed invention.” *Virtek Vision at*

887. “[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. . . . [I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR, supra*. Petitioner has failed to explain how any of its alleged “reasons” would have prompted a POSITA to combine the elements in the way claimed.

Petitioner contends that PO’s argument to distinguish DeFosse never explains why those differences would matter to combining DeFosse and Van Vliet. Reply at 23. However, this is an improper attempt to shift Petitioner’s burden of proof to PO. Petitioner asserted that the combination would have been obvious because Van Vliet discloses pumping fluids and DeFosse discloses pumps in a “related context.” PO’s arguments were, explicitly, that Petitioner’s characterization of Van Vliet is misplaced because Van Vliet is directed to fuel, not pumping fluids more generally as Petitioner alleged, and that DeFosse’s pumping is thus not in a “related context.” POR at 45-46. The issues which PO addressed were therefore significant to exposing Petitioner’s failure to support its assertions, which it did not do in the Petition or on reply.

Petitioner then contends that PO’s argument that Dr. Durham’s opinions on DeFosse lack a “factual basis” is unclear because he need not cite a literature source. PO agrees that he need not recite a literature source; however, there are consequences, as expert testimony that does not disclose the underlying facts or data on which the

opinion is based is entitled to little or no weight. 37 C.F.R. §42.65(a). As PO pointed out, Petitioner's expert provided no factual basis for any of the opinions in those cited paragraphs. See POR at 23; Ex. 2011 at ¶¶210-211. Petitioner's assertion that a POSITA would have been motivated to combine Van Vliet and DeFosse remains unsupported. Indeed, Petitioner did not dispute PO's argument that, given DeFosse's pumps function for mixing of hydraulic frac fluid and that Van Vliet's pumps handle fuel and have no need for mixing, a POSITA would not have looked to DeFosse's pumps to modify Van Vliet. POR at 49-50.

VII. SECONDARY CONSIDERATIONS

Concerning nexus, Dr. Durham conducted an in-person inspection of a representative one of PO Fuel Automation Station's refueling units on July 25, 2024, including taking pictures and observing operation of the unit, which was prior to the completion of Dr. Durham's supplemental declaration dated August 26, 2024 and the filing of Petitioner's Reply served on August 28, 2024. Ex. 1055 at 24; Reply at 28. Petitioner thus had opportunity to determine *in persona* whether Fuel Automation Station's refueling unit contained the novel features of the '118 Patent claims. Yet, Petitioner did not argue that its inspection revealed any claim features missing from PO's unit.

VIII. CONCLUSION

For the foregoing reasons and the reasons in the POR, PO respectfully submits that Petitioner has not established by preponderance of evidence that any claims of the '955 Patent are unpatentable.

Respectfully Submitted,

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Dated: October 9, 2024

STATEMENT OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(b)(1), the undersigned hereby certifies that the foregoing document is produced using a 14-point Times New Roman font and contains 4,885 words (excluding a table of contents, table of authorities, certificate of service, and appendix of exhibits), which is fewer than the 5,600 words permitted by PTAB rules. Counsel relies on the word count of the computer program used to prepare the document.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on October 9, 2024, a true and correct copy of the foregoing document was served electronically via e-mail in its entirety on counsel identified below by Petitioner for service at DLPermianIPR@bakerbotts.com.

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