

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PERMIAN GLOBAL INC., AND
MANTICORE FUELS, LLC,

Petitioners,

v.

FUEL AUTOMATION STATION, LLC,

Patent Owner.

Case IPR2023-01237

Patent No. 9,586,805

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

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TABLE OF EXHIBITS

Exhibit	Description
Ex. 2001	U.S. 9,346,662
Ex. 2002	13/028,991 Assignment Record
Ex. 2003	Waterman, "Better Safe Than Sorry"
Ex. 2004	Expert Report of John Roberts
Ex. 2005	FAS Virtual Marking page (https://fluidautomationstation.com/patents/)
Ex. 2006	US Patent 2,603,312
Ex. 2007	US Patent 1,829,173
Ex. 2008	US Patent 3,196,982
Ex. 2009	US Patent 3,430,730
Ex. 2010	US Patent 3,216,527
Ex. 2011	US Patent 2,425,848
Ex. 2012	Transcript of Deposition of Robert Durham
Ex. 2013	ASTM D975 Standard Specification for Diesel Fuel Oils
Ex. 2014	Intentionally Omitted
Ex. 2015	AFLAS TM Reg Serial 73310396
Ex. 2016	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. 2017	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. 2018	Intentionally Omitted

Ex. 2019	Brent Oil/Fuel Hose 3106 (http://web.archive.org/web/20160713193942/ http://www.desihose.com/viewproduct.aspx?pid=192)
Ex. 2020	Atlas Oil’s Rick Shock Named “Industry Leader” At Texas Oil and Gas Awards
Ex. 2021	<i>FAS v. Comanche Gas Solutions</i> Complaint
Ex. 2022	<i>FAS v. Permian Global, et al.</i> Complaint
Ex. 2023	Ortoleva Declaration
Ex. 2024	Rodger’s CV
Ex. 2025	Intelligencer article (digital print The Intelligencer, January 31, 2020)
Ex. 2026	Intentionally Omitted
Ex. 2027	Intentionally Omitted
Ex. 2028	Waterman, "Better Safe Than Sorry"
Ex. 2029	Information Disclosure Statement
Ex. 2030	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, in several instances Petitioner attempts to characterize PO's arguments as bodily incorporation. Yet, PO's arguments were commensurate in cope with Petitioner's grounds were based on physical incorporations. In other instances, unable to substantively address PO's arguments, Petitioner resorts to introducing new arguments that there are a finite number of solutions. However, Petitioner fails to identify those solutions. Finally, Petitioner all but abandons the AFD reference, as Petitioner did nothing to substantial its alleged factual findings concerning AFD. In all of these instances and more, the Board should reject Petitioner's arguments.

II. GROUNDS 1, 3, AND 4: THE CHALLENGED CLAIMS ARE NOT OBVIOUS OVER VAN VLIET IN VIEW OF CABLE

Petitioner asserts that the Petition describes in detail the rationale and motivation for combining Van Vliet with the teachings of Cable, including the desire to make *Van Vliet's* system more easily traversable by operators for repairs, maintenance, and/or physical inspection, and the similarities of the references. Reply at 2. PO has addressed each of these. Concerning traversability and inspection, reels deployed on opposing sides of an aisle walkway would be more likely to impede access and inspection, and a POSITA would find such a configuration to be unsafe.

POR at 14-16. As to the alleged similarities of the references, PO discussed at length ways in which Cable is different than Van Vliet. POR at 9-21. Moreover, merely being similar/analogous is insufficient to establish obviousness. 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).

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

Petitioner appears to suggest that it is immune from having to provide proper reason to combine the elements as claimed, mistaking PO's argument for an argument that Cable is inapplicable to Van Vliet, which PO did not argue. Reply at 3; POR at 9-13. 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., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (internal citations omitted).

Petitioner falsely characterizes PO's distinctions between Cable and Van Vliet as unsupported attorney argument. PO's argument is supported by numerous citations to Cable as well as the expert opinion of Dr. Rodgers, all of which would have discouraged a POSITA from looking to Cable for an arrangement of equipment in Van Vliet. POR at 9-13. Indeed, other than conclusory statements, Petitioner did not even attempt to rebut most of PO's citations to Cable and to its expert that relied on those citations. 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.). Petitioner further alleges that Cable is not limited because the USPTO viewed Cable's relevant field more broadly during prosecution. Reply at 11. This is to no avail though, as Petitioner does not explain how, if at all, this changes any of the facts upon which PO's argument was based. Moreover, the USPTO uses a different standard for examining claims during prosecution than under the Phillips standard applied in IPRs, which may have well led the USPTO to consider a wider field during prosecution. The prior art must be considered in its entirety, i.e. as a whole. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550 (Fed. Cir. 1983).

As PO argued, when the facts of Cable are taken together, a POSITA would have understood that the configuration of Cable's truck is predicated upon roadside

safety and rapid servicing of vehicles, which are not of concern in Van Vliet. Even though a POSITA is a person of ordinary creativity, not an automaton, the facts of Cable are pertinent to how a POSITA would understand Cable's teachings and are part of the "as a whole" inquiry.

Petitioner then complains that PO's arguments attempt to hold Petitioner to an improper bodily incorporation standard. Reply at 5. This is incorrect for several reasons. First, PO did not argue that Cable cannot be physically combined into Van Vliet, but instead argued based upon what the teachings would have suggested to a POSITA.

Second, Petitioner's grounds require incorporation of Cable's physical arrangement. The grounds purport to apply Cable's walkable reel deployment compartment with a central aisle walkway, Cable's reels deployed on opposing sides of the walkway adjacent to the sidewalls, and Cable's occupant compartment separated by an interior wall to Van Vliet (Petition at 21). 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." (emphasis added). The grounds also rely on "*Cable's* arrangement," and "locating equipment on both sides of the aisle to facilitate delivery of fluids to vehicles in multiple locations." Petition at 22. And most definitively, the grounds assert that a POSITA would have looked "to other references, such as *Cable*, ***for spatial configurations***"

and a POSITA “would have been motivated to modify *Vliet*’s system ***to include Cable’s aisle configuration***” (emphasis added). Petition at 23-25. Even further, Petitioner asserts that the combination with Cable makes Van Vliet’s system more “traversable” (Petition at 21). 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 merely commensurate in scope with the grounds.

Petitioner further complains that PO’s “practical arrangement” argument does not address the teachings but rather is directed to physical incorporation. Reply at 6. Again, Petitioner’s ground requires incorporation of Cable’s physical arrangement. And the prior art must be considered for all its teachings, not selectively. *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019). PO’s argument is directed to the teachings of Cable’s arrangement and what that would suggest to a POSITA.

Petitioner also asserts that PO misapprehends the Petition’s combination of Van Vliet and Cable to require that the reels in the combined system be oriented with the axes of the reels being perpendicular to the trailer walls. Reply at 7, FN3. However, the petition never articulates how the reels are oriented in the proposed combination, especially with regard to claims 17 and 18 under Ground 1. Van Vliet

does not teach hoses deployed out both sides of its trailer, and Cable only has hoses deploying from one side, the back. See POR at 17-18; Ex. 2012, 109:24-110:3.

Petitioner's assertion that PO's argument about Cable's walkway is an improper bodily incorporation is also misplaced. The walkway is part of the teachings of Cable, and the Petition did not address Cable's teaching of the walkway as a storage area, which would discourage a POSITA from modifying Van Vliet according to Cable. POR at 21-22. The prior art must be considered for all its teachings, not selectively. See *Henny Penny Corp, supra*.

Concerning an aisle 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 8. 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, to the extent 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. See POR at 16. 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.

On reply, Petitioner also leans into “design choice” in attempt to deny Cable's teachings. Reply at 9. However, Petitioner has improperly used “design choice” as a surrogate in place of explaining how and why a POSITA would arrive at the claimed arrangement from the prior art. PO's Response at 32; *Fanduel, Inc. v. Interactive Games LLC*, 966 F.3d 1334, 1343-1344 (Fed. Cir. 2020). See also MPEP § 2144 (“Simply stating the principle (e.g., ‘art recognized equivalent,’ ‘structural similarity’) without providing an explanation of its applicability to the facts of the case at hand is generally not sufficient to establish a *prima facie* case of obviousness.”). For instance, though Petitioner quotes Van Vliet, which states, “The spatial orientation . . . of the equipment . . . is a matter of design choice and will depend on space requirements,” this does not mean that any and every spatial

orientation would be obvious, as Petitioner seems to insinuate. The obviousness inquiry still must consider what Cable's teachings suggest to a POSITA and there still must be an explanation for how and why a POSITA would combine the prior art elements as claimed. Indeed, Petitioner provides no such explanation or analysis of how any particular "space requirements" would necessarily lead to the claimed arrangement. Accordingly, it is clear that Petitioner's analysis amounts to impermissible hindsight based on information gleaned only from the '805 Patent. See also POR at 18.

III. GROUND 2: VAN VLIET DOES NOT DISCLOSE OR RENDER OBVIOUS CLAIMS 17(h).

On reply, Petitioner attempts to materially shift a basis for its ground. The Petition asserts that the features of claim 17[h] would be the "most obvious" arrangement. Petition at 48; Ex. 1003 at ¶233. Now on reply, Petitioner abandons that assertion and instead alleges that hoses deployed from both sides is at least one of the limited number of arrangements that a POSITA would choose for Van Vliet. This argument is new and lacks support.

Petitioner asserts that this was shown in Dr. Durham's declaration, but Petitioner fails to provide any citation. Moreover, arguments must not be incorporated by reference from one document into another document. 37 CFR § 42.6(a)(3). Even if Petitioner had provided support, it failed to articulate how there

are a limited number of arrangements. In fact, Dr. Durham’s opinion at Ex. 1003 at ¶231 relies on an arbitrary and self-serving drawing that Dr. Durham apparently created himself. Of course, Dr. Durham’s drawing is not prior art, nor does the drawing demonstrate or conclude that there are a limited number of arrangements that a POSITA could choose for Van Vliet. See also POR at 23. Again, it is clear that Petitioner’s analysis is based on impermissible hindsight gleaned from only in the ‘805 Patent.

IV. **GROUND 4, 7, AND 8: A POSITA WOULD NOT MODIFY VAN VLIET WITH COXREELS**

A. **The Coxreels 1125 Series reel is not for fracking or automated fuel delivery.**

Contrary to law, Petitioner urges the Board to focus on selective features of Coxreels while discounting or ignoring Coxreels’ disadvantages. Reply at 11.

Notably, Petitioner’s rationale and motivation for these grounds is set forth in the Petition at 54-56. That section of the Petition stated:

- “**use *Coxreels*’ reel** in the system of *Vliet*” (emphasis added)
- “**using *Coxreels*’ reel** in *Vliet*’s mobile fuel delivery system” (emphasis added)
- “**using *Coxreels*’ reels** with *Vliet*’s system” (emphasis added)
- “a POSITA would have needed only to **select *Coxreels*’ reel** when choosing which reel to implement” (emphasis added)

- “combining a known **prior art reel**” (emphasis added)
- “would have expected that the *Coxreels* reel would work” (emphasis added)

These quotations confirm that the basis of the grounds is an incorporation of Coxreels’ reel into Van Vliet. Petitioner’s reply narrative - that PO argues an improper bodily incorporation - is inconsistent with the actual grounds it proposed. PO responded to the grounds articulated by the Petitioner. Petitioner has overlooked the quotes above and has not explained how its grounds can be understood as anything other than an assertion of using of Coxreels’ reel in Van Vliet.

PO's arguments also do not assert bodily incorporation, as PO has not asserted that Coxreels cannot be physically combined into Van Vliet. Rather, PO's arguments are commensurate in scope with the grounds. A POSITA would not have utilized the Coxreels reel in Van Vliet for the numerous reasons PO provided.

Petitioner believes that PO’s “unsuitability” argument is an improper bodily incorporation standard. However, PO’s argument is completely proper. First, as discussed above, incorporation of Coxreels’ reel into Van Vliet is what the grounds require. Second, Petitioner’s characterization of PO’s argument is misplaced. PO did not argue that Coxreels reel cannot be physically combined into Van Vliet, but is instead based upon what the teachings would have suggested to a POSITA.

Petitioner's assertion that PO's "unsuitability" argument is based on characteristics of specific models of reel discussed in the Coxreels reference as opposed to the teachings is also misplaced, as the models is based off of the prior art teachings. Coxreels must be considered for all its teachings, not selectively. See also *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 this regard, Petitioner's characterization of PO's argument as focusing on physical incorporation is wrong, PO's arguments are directed at features that are part of the teachings of Coxreels, and Petitioner has not explained why those teachings should be ignored, particularly since its grounds require incorporation of Coxreels reel. Even if Petitioner could change its grounds to be limited to Coxreels' flow passage, the brass inlet and AFLAS seal are part of that flow passage.

Petitioner next attacks Dr. Rodgers' analysis of operating configurations ("Dr. Rodgers' model"). As discussed above, Petitioner's grounds require *incorporating Coxreels' reel* into Van Vliet's mobile fuel delivery system. Incorporation of the reel implicates the hose on the reel, and thus also the size, length, and performance of the hose.

To perform any flow calculations such as in *Dr. Rodgers' model*, there must be assumptions about much fuel and the time period over which it is delivered. Dr. Rogers set forth expected fuel volumes for different "sizes" of jobs, with additional

reference to an underlying supporting document. Ex. 2004, ¶173. Dr. Rodgers also acknowledged that “particular job parameters varied quite a bit.” *Id.* On the other hand, Dr. Durham advocates a narrow, limiting amount of fuel, asserting that “fracturing jobs requiring even less fuel were routinely performed before the priority dates were [sic] Challenged Patents, and I have witnessed such smaller fracturing jobs in my experience in the field.” Ex. 1055 at ¶41. However, the job Dr. Durham witnessed did not even require refueling. Ex. 2030 at 86:5-87:9.

Moreover, the context of the prior art matters to a POSITA. In order to distance themselves from aspects of the prior art that do not fit its conclusions, such as the brass inlet, AFLAS seal, temperatures, and pressures, Petitioners argue that the grounds do not rely on these things. But this is of no moment. The ‘805 Patent claims have required Petitioners to attempt to modify Van Vliet with Coxreels. 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.”).

Indeed, the drawbacks of the brass inlet or AFLAS seal outweigh whatever (unidentified) benefits there are.¹ Brass can lead to fuel degradation and promote formation of gels and deposits that can plug lines, orifices, filter screens, and the like, causing injector malfunction or seizures. POR at 20. Thus, the brass inlet in Coxreels risks malfunction of downstream equipment. Even Dr. Durham acknowledges that such equipment is in the “red zone” and operates at high pressure and temperature, that safety is a “chief concern” on a well site, and that safety incidents can result in life-threatening injuries. Ex. 2030 at 20:17-23; 66:13-67:25. (“A red zone's an area around the high pressure pumping equipment and well heads, frac iron, things that contain high pressure” and “close proximity to the engines, the temperatures can be higher than the ambient temperature...[b]ecause the engines release heat.”). A POSITA would therefore conclude that use of brass in a refueling system risks serious malfunctions and possible injury. In view of such serious consequences, a POSITA would understand a brass fitting to be a substantial disadvantage.

¹ Petitioner asserted a POSITA “would have recognized the advantage” of Coxreels’ reel, but neither Petitioner nor its expert identify or explain what “the advantage” is. Petitioner is thus relegated to arguing, in hindsight, that features that were buried in its expert’s report are “the advantages” even though it never identified or relied on those as the advantages.

Dr. Durham's disagreement about brass lacks merit. First, his premise is false. He attests that there is no evidence that the application of a fueling system meets the criteria in PO's Ex. 2024 (exhibit from IPR2023-01236); Ex. 1055 at ¶11. Dr. Durham's interpretation of Ex. 2024, however, is misplaced. He asserts that Ex. 2024 deals with long term storage and high temperature and severe duty applications of diesel. Ex. 1055 at ¶11. However, Dr. Durham later acknowledged that his assertion misstates the explicit text of Ex. 2024, which states those conditions as alternatives. Ex. 2030 at 59:17-60:12; 62:8-63:13. Dr. Durham also acknowledged that the application of the refueling system involves high pressure and elevated temperatures in the "red zone" where the frac pumps are located. *supra* Ex. 2030. Thus, contrary to his own conclusion that "[t]here is no evidence to support that the application of a fueling system meets any of those criteria," Dr. Durham concedes the application of a fueling system does in fact involve high pressure and temperature, placing it squarely within the concerns in Ex. 2024.

Second, Dr. Durham's testimony concerning residual fuel is also to no avail. See Ex. 1055 at ¶12. It is immaterial what happens when there is no fuel in the system, because the concern occurs when there is fuel in the system, which Dr. Durham does not deny.

Third, Dr. Durham's additional assertion that there would be no substantial volume of fuel exposed to the brass for any extended period of time also lacks

relevance. Ex. 1055 at ¶12. As Dr. Durham acknowledged *supra*, Ex. 2024 is not directed to, and does not require, long term storage of fuel, as that was just one alternative condition of concern. Moreover, Ex. 2024 is not limited to any particular fuel volume, nor does Dr. Durham point to any such volumetric limitations. Given the risk of serious consequences discussed above, a POSITA would not risk using a brass fitting.

Dr. Durham also charges that Van Vliet and the challenged claims are not limited to diesel. Ex. 1055 at ¶13. However, as discussed above, prior art must be considered for all its teachings, not selectively. It is undisputed that Van Vliet is directed to fuel, which Dr. Durham does not deny diesel is. Van Vliet explicitly indicates its technical field is “Fuel delivery systems and methods,” which Petitioner also concedes in the petition. Petition at 21-22; Ex. 1004 at [0001]. Dr. Durham also refers to diesel in numerous instances in his declaration. Ex. 1003 at 32, 44, 48, 61, 162. Petitioner therefore considered diesel, and a POSITA would do the same.

Petitioner asserts brass fluid inlets might not be optimal, but that does not refute obviousness. Reply at 15. PO disagrees. Dr. Durham acknowledges that safety is a “chief concern” on a well site, and safety incidents can result in life-threatening injuries. *supra* Ex. 2030 at 20:17-23; 66:13-67: 25. Given the potential for life-threatening injuries, there is no reason a POSITA would choose to use brass and

increase a risk of equipment malfunction or seizure, which of course could pose a safety concern.

Insofar as Petitioner or its expert assert interchanging or swapping features between different models in Coxreels and seals or that are not in Coxreels, such assertions are immaterial because the basis of the grounds is incorporation of Coxreels' reel, not some previously unidentified amalgamation of features that Petitioner has now chosen in hindsight. Indeed, although Dr. Durham suggests other seals could be used, such as nitrile seals, he provides no support for any examples or properties of nitrile seals or any other seal. Ex. 2030 at 30:13-32:10.

Petitioner's understanding of Dr. Rodgers' model is also fundamentally flawed, as it is based on a different understanding of duty cycle and number of hoses open at once. Dr. Durham asserts that Dr. Rodgers' 50% "max duty cycle" means that only 3 hoses were available, and that those 3 hoses are only available for 50% of the time. This is demonstrably incorrect, as POR at 29 explicitly defines "duty cycle" and POR at 30 explains what a limit on the number of open hoses means.

Petitioner fails to appreciate that operation of a refueling system as in Van Vliet would inevitably require operating parameters and limitations, because operation at a "redline" configuration would be a safety risk. Ex. 2004 ¶183. Even Dr. Durham concedes that a designer would account for a safety factor or safety margin. Ex. 2030 at 21:6-23:3. Thus, while a system might be operated with more

than 3 hoses open simultaneously, doing so would increase safety risk. Ex. 2004 ¶178.

Similarly, pump pressure should be limited to limit the rate at which fuel would leak or spray if a hose or hoses is/are damaged. While Van Vliet might have shut-off valves or containment pans, Van Vliet does not teach that these features mitigate the type or severity of a spill or leak, such as fuel spraying into the air onto an operator or a hot surface. Dr. Durham agrees that the higher the hose pressure, the more fuel that would leak, all else being equal. Ex. 2030 at 90:7-18. In that case, shutting off the pump or closing a shut-off valve could not address fuel spray in the way that limiting system pressure would because shutting off the pump or closing a shut-off valve would only occur after the leak sprung (assuming the system or operators even timely detect it). In contrast, limiting the pressure in the system to begin with would limit leaking when the leak occurs.

V. GROUNDS 5-8: PETITIONER’S CHALLENGE FAILS BECAUSE VAN VLIET AND AFD DO NOT TEACH AN AISLE WALKWAY

First, Petitioner seems to believe that that it need not provide factual findings as an underpinning of its grounds, namely that AFD teaches an aisle walkway (Petition at 65). However, providing factual findings is a tenet of the law on obviousness (e.g., *Graham* factual findings). *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966); MPEP 2141. Thus, the alleged teachings must be

underpinned by facts, not speculation as to what a POSITA might understand of the prior art. PO's arguments are directed to factual findings and, in particular, gaps in Petitioner's alleged factual findings.

Petitioner complains that Dr. Rodgers' criticisms of AFD are merely unfounded speculation. Reply at 20. However, Dr. Rodgers' opinions are no more speculation than the opinions of Petitioner's expert. For instance, Petitioner alleges that Dr. Rodgers' assessment that it is plausible that there was another system or piece of equipment behind [AFD's] trailer that was removed when the photo was modified is lay opinion. Reply at 20; Ex. 2004 at ¶193. Yet Petitioner's own conclusion that there are hoses coming out of the far side of AFD's trailer is speculation, as that side of the trailer is not visible or described in AFD. Thus, as a factual finding, Petitioner does not have a sound basis. Petitioner has neither proven nor explained how AFD necessarily teaches hoses coming out of both sides or an aisle walkway down the middle.

Petitioner then newly asserts that deploying hoses from both sides of AFD's trailer is one of a limited number of possible arrangements that a POSITA would understand from the reference. Reply at 21. This new assertion should be rejected, as neither Petitioner nor its expert cite any evidence for this supposition, nor does Petitioner articulate what the possible arrangements are or how that supports obviousness.

Then, further back-peddling from its original ground, Petitioner offers the entirely new ground that designing AFD's trailer to have groups of hoses deployable from each side of the trailer would have been an obvious design choice for a POSITA to implement. Reply at 21. The proposal to modify AFD is materially different from Petitioner's original ground that did not assert design choice and that relied on alleged factual findings of AFD. Moreover, merely reciting "design choice" does not magically relieve Petitioner from having to articulate a reason for combining, nor does it supplant Petitioner's obligation to provide factual findings to undergird its conclusions. "A reason for combining must exist." *Virtek Vision Int'l v. Assembly Guidance Sys.*, 97 F.4th 882, 888 (Fed. Cir. 2024). Petitioner's new ground should be rejected, as it lacks basis in factual findings and a reason to modify to arrive at the elements as claimed.

Notably, Petitioner does not dispute a number of PO's further arguments against AFD. For instance, Petitioner does not dispute PO's arguments based on the hose guide "windows," PO's arguments concerning AFD's alleged aisle walkway, or PO's arguments directed to claims 7-10. And Dr. Durham admitted that one cannot see the reels in the AFD reference and that the hoses coming out both sides of the trailer does not necessitate an aisle walkway, which is required in claims 1-16 and 18-21. (EX. 2012, 56:16-18; 58:1-3).

VI. 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.

VII. CONCLUSION

For the foregoing reasons, Patent Owner respectfully submits that Petitioner has not established by preponderance of evidence that any claims of the '805 Patent are unpatentable.

Respectfully Submitted,

CARLSON, GASKEY & OLDS, P.C.

Dated: October 9, 2024

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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 4,704 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.

Respectfully Submitted,

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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

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