

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROBE LIGHTING S.R.O.,
Petitioner,

v.

GUANGZHOU HAOYANG ELECTRONIC CO., LTD.,
Patent Owner.

IPR2025-01016
Patent 11,988,373 B1

PATENT OWNER'S SUR-REPLY TO REPLY

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I. PRELIMINARY STATEMENT

Nothing in Petitioner's Reply cures the issues Patent Owner identified in its Response.

Regarding "synchronously," Petitioner vainly wrestles against a strawman argument that Patent Owner never made while insisting on starting with the wrong dictionary definition rather than with the specification. The remainder of Petitioner's arguments simply express disagreement rather than actually address Patent Owner's arguments. Petitioner's arguments attempt to disguise its failure to meet its burden of proving obviousness by arguing that Patent Owner failed to disprove the possibility that the combination would yield the claimed invention.

It is Petitioner that bears the burden of proving obviousness. Petitioner's choice to rely solely on conclusory expert testimony and the very motivations disclosed in the '373 patent rather than support its motivations with actual evidence from the prior art dooms its case. The Board should thus find Petitioner failed to meet its burden to demonstrate unpatentability of claims 5, 7, 8, 12, and 13 of the '373 patent.

II. CLAIM CONSTRUCTION: "SYNCHRONOUSLY"

Petitioner attempts a strawman argument for the term "synchronously." Reply at 2-7. Petitioner insists its construction is the "ordinary meaning" and

mischaracterizes Patent Owner's construction as a "special construction" (Reply at 2) requiring extraordinary justification or disavowal (Reply at 4).

But Patent Owner's construction **is** the plain and ordinary meaning of the term and **not** a "special" construction. In fact, Patent Owner specifically stated its construction "is also the plain and ordinary meaning" of the term. Patent Owner Response ("POR") at 5. Even Petitioner admits Patent Owner's construction is one definition from the dictionary for the actual¹ term "synchronously." Reply at 2 (admitting both dictionaries define "synchronously" as "at the same time **or** at the same speed") (emphasis in original). Petitioner's argument that Patent Owner's construction is somehow "special" is thus a strawman argument.

Petitioner presses its strawman argument by mischaracterizing Patent Owner's plain meaning construction as a "disavowal argument." Reply at 4. Patent Owner made no such argument.² Petitioner's own brief acknowledges disavowal is an "exception" to using the plain and ordinary meaning. *Id.* Patent Owner seeks no such exception because its construction **is** the plain and ordinary

¹ Petitioner's dictionary definitions are for the wrong term: synchronous.

² Even under the incorrect disavowal standard, Petitioner's construction would fail. The specification specifically states that an inconsistent temperature between the head and base housing is considered "asynchronous." See POR at 4.

meaning. Here, either “at the same time” or “at the same speed” is a potential plain and ordinary meaning for the term “synchronously.” Petitioner agrees because it admits the dictionary defines the term as “at the same time or at the same speed.” Reply at 3 (emphasis in original).³

Petitioner’s disavowal cases are inapplicable because none concern a dispute regarding multiple potential plain and ordinary meanings of a term. Instead, each case concerns whether to limit a term to something that was patently **not** the plain and ordinary meaning of the term. *See Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1367-68 (Fed. Cir. 2012) (seeking to limit “attached” to exterior attachment, excluding interior attachment); *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371-72 (Fed. Cir. 2014) (concerning whether “datalink” should be limited to only a physical datalink); *SSI Techs., LLC v. Dongguan Zhengyang Elec. Mech. LTD.*, 59 F.4th 1328, 1335-36 (Fed. Cir. 2023) (concerning whether “filter” was limited to filters with certain sized openings).

The Federal Circuit has recognized on multiple occasions, words “may have more than one plain and ordinary meaning.” *Kaneka Corp. v. Xiamen Kingdomway Grp. Co.*, 790 F.3d 1298, 1304-05 (Fed. Cir. 2015); *see also*

³ Despite emphasizing the disjunctive in its own brief, Petitioner nonetheless argues for the conjunctive. Reply at 2.

Ferguson Beauregard/Logic Controls, Div. of Dover Res., Inc. v. Mega Sys., LLC, 350 F.3d 1327, 1331 (Fed. Cir. 2003) (“Words often have different meanings . . . accounting for the multiple ordinary meanings found in dictionaries.”). In such situations, the proper approach is to begin with the specification because it “is ‘the single best guide to the meaning of a disputed term.’” *Kaneka*, 790 F.3d at 1304 (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc)). Dictionary definitions may be useful thereafter, but they may not “contradict any definition found in or *ascertained* by a reading of the patent documents.” *Id.* (internal quotation marks omitted, emphasis in original).

Here, “at the same speed” is the proper construction for “synchronously” if the analysis ***begins with the specification***. This is so because the specification states increasing the temperature inconsistently between the head and base housing is considered “asynchronous” and requires controlling the heating power of respective elements when synchronously increasing the temperature. See POR at 3-5. This concerns the core nature of the relationship: temperature rather than merely time. The specification requires temperature consistency—not merely a temporal overlap (i.e., at the same time). Consequently, “at the same speed” is the proper plain meaning construction of the term “*ascertained* by reading of the patent documents.” *Kaneka*, 790 F.3d at 1304 (emphasis in original).

Rather than begin with the specification, Petitioner appears to begin with the dictionary definition and work backwards. Petitioner selects the dictionary definition that might work for its invalidity position and then looks to see if it's expressly contradicted by the specification. Worse, Petitioner conveniently begins with the dictionary definition for the **wrong term** "synchronous." The Federal Circuit has explained that Petitioner uses the wrong approach. Petitioner's approach is backwards.

For example, in *Kaneka*, the Federal Circuit explained that dictionaries are not even needed when the meaning of a term is clear. There, the Court "disagree[d] that 'sealed' must be construed using a dictionary" because "the meaning of [the] claim term can be ascertained from the intrinsic record." *Kaneka*, 790 F.3d at 1305. Here, the scope of "synchronously" can be readily determined from the specification alone to require some type of temperature consistency because it defines temperature inconsistency as "asynchronous." Similarly, in *Ferguson*, the Federal Circuit quoted *Brookhill-Wilk 1*, which states that "the general meanings gleaned from references sources, such as dictionaries, must always be compared against the use of the terms in context, and the intrinsic record must always be consulted to identify which of the different possible dictionary meanings is most consistent with the use of the words by the inventor." *Ferguson*, 350 F.3d at 1338-39 (quoting *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334

F.3d 1294, 1300 (Fed. Cir. 2003)). Here, consulting the intrinsic record reveals Patent Owner’s construction is the dictionary meaning that is most consistent with the use of the word “synchronously” by the inventor.

Petitioner’s strawman argument that mischaracterizes Patent Owner’s construction as a “special” construction and choice to start with the (wrong) dictionary definition appears to be an attempt to anchor the Board to Petitioner’s construction. By proffering its construction as the only plain and ordinary construction, Petitioner seeks to root its construction as the default/standard (anchor) against which Patent Owner’s construction is judged. This strategy tends to shift the burden onto Patent Owner to justify an allegedly “special” construction through disavowal or otherwise.

The Board should resist Petitioner’s anchoring attempt. The proper starting point for construing “synchronously” is the specification—not the dictionary definition for the wrong word. Following the proper approach leads inevitably to Patent Owner’s construction.

III. PETITIONER FAILS TO ESTABLISH THAT CLAIMS 5, 7-8, AND 12-13 ARE UNPATENTABLE

A. Claim 5, 12, and 13 (Ground 2)

Petitioner attempts to disguise its failure to meet its burden of proving obviousness by arguing that Patent Owner failed to prove nonobviousness or failed

to disprove the possibility that the combination would yield the claimed invention.

But Petitioner bears the burden of proving obviousness.

For the reasons below, Petitioner has failed to demonstrate claim 5 is obvious over Jurik, or alternatively, obvious over Jurik in view of Johansen.

Petitioner's arguments for claims 12 and 13, which depend directly from claim 5, fail for the same reasons.

1. Petitioner ignores its burden to explain why one of skill would duplicate or remove huge drying tubes

Petitioner criticizes Patent Owner's arguments regarding Jurik's drying tubes, including both their size and existence and states that "there is no suggestion in either Jurik or the [']373 Patent that the membrane 210/410 of Jurik requires the use of drying tubes to function as recited by claim 5." Reply at 11. Put another way, Petitioner says nothing in Jurik states that Jurik's membrane and Jurik's drying tube—both of which are disclosed together and work together—must be used together. This amounts to nothing more than saying the combination is possible—*could* rather than *would*. It is not Patent Owner's burden to disprove obviousness.

Even at this late stage, it remains unclear whether Patent Owner's obviousness combination duplicates Jurik's membrane alone or duplicates both Jurik's membrane and its drying tubes. Patent Owner raised this issue directly.

See POR at 20-21. On the one hand, Petitioner states, seemingly unequivocally, that “drying tubes are not a part of Petitioner’s argument.” Reply at 11. On the other hand, Petitioner states that its combination adds “a second waterproof breathable valve as part of a second humidity and pressure control system,” implying a second set of tubes to control humidity. *Id.* at 15-16. Petitioner also cryptically says “with or without drying tubes” later in its Reply. Reply at 19. It is not clear from these arguments what exactly Petitioner’s modification is in connection with the drying tubes. Petitioner’s failure to explain what its combination actually includes is an additional reason Petitioner has failed to meet its burden of demonstrating obviousness.

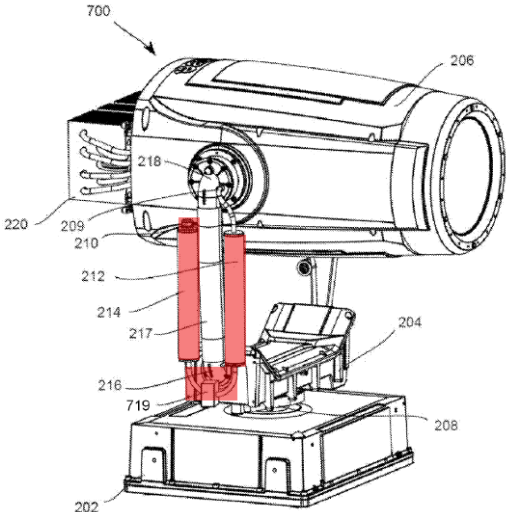
If Petitioner’s combination includes duplicated drying tubes, then the size of the drying tubes must play a role in whether a person of skill *would* duplicate them, in contrast to whether a person of skill *could* duplicate them. Petitioner argues that the size of the tubes is irrelevant merely because tubes “are n[ot] required by claim 5.” Reply at 10-11; *see also id.* (“Claim 5 does not expressly or impliedly require drying tubes . . .”). This takes the approach of starting with and working backwards from the claims, using them as a roadmap. The law says that is the wrong approach. *TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1361 (Fed. Cir. 2019) (criticizing “us[ing] the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art.”). Petitioner

cannot pick and choose disparate elements from Jurik and simply announce that anything unclaimed is irrelevant. If Petitioner is duplicating drying tubes, then it bears the burden of explaining why such duplication is obvious, even if tubes are unclaimed.

Petitioner complains that drawings cannot be relied upon for scale, citing *Nystrom* and *Hockerson-Halberstadt*. But both cases concern whether drawings may be used to show “precise proportions.” See *Nystrom v. TREX Co.*, 424 F.3d 1136, 1148 (Fed. Cir. 2005) (concerning relative thickness ratios of “1:39, 1:39, and 1:37, respectively”); *Hockerson-Halberstadt, Inc. v. Avia Grp. Int’l, Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000) (“concerning the quantitative relationship between the respective widths of the groove and fins”). The Federal Circuit has explained that “patent drawings may be useful in shedding light about the general shapes and relative sizes of elements of the claimed invention, as well as their spatial relations to one another.” *Regents of Univ. of California v. Satco Prods., Inc.*, No. 2023-1356, 2024 WL 4972639, at *3 (Fed. Cir. Dec. 4, 2024). Citing Petitioner’s cases, the Court stated that the limitation applies specifically to relying on drawings to “define the precise proportion of elements.” *Id.*

Here, Patent Owner does not rely on drawings to show any precise proportions. Rather, the drawings generally show the drying tubes are huge in relation to Jurik’s entire luminaire. Even if the tubes are doubled or halved in size,

their large size would still influence any decision to duplicate them. Moreover, unlike the rudimentary drawings in *Hockerson-Halberstadt*, the drawings in Jurik are highly detailed and provide at least some “indication that the proportions . . . are drawn to scale.” *Hockerson-Halberstadt*, 222 F.3d at 956. As shown below, this is not a case of rudimentary drawings.

<i>Hockerson-Halberstadt</i> , 222 F.3d at 954	Jurik (red annotations added)
	

Thus, if Petitioner’s combination includes duplicating the tubes, then Petitioner should have addressed why one of skill would have sought to duplicate huge drying tubes. As Patent Owner explained, no such duplication would have occurred because Jurik’s huge tubes, in combination with other disclosures (e.g.,

Jurik's focus on connected enclosures vented through a single tube), teach away from such duplication. POR at 12-22.

If, on the other hand, Petitioner seeks to omit the drying tubes, Petitioner still bears the burden to explain the omission. This burden includes explaining why one of skill would have used Jurik's membrane alone, and why it would have worked. Petitioner cannot simply announce that the drying tubes are wholly irrelevant simply because they are not claimed. That's hindsight. That approach selects disparate elements (Jurik's membrane) using the claim as a roadmap, without explaining how or why the prior art is modified.

Nor can Petitioner simply claim that "there is no suggestion in either Jurik or the [']373 patent that the membrane 210/410 of Jurik requires the use of drying tubes to function" because that constitutes simply claiming that the combination (duplicating Jurik's membrane without drying tubes) *could* work, not that it *would* work. It is not Patent Owner's burden to disprove a *possible* combination.⁴ In

⁴ Even if it were, Jurik contains many disclosures that discourage using a copy of its membrane by itself including (1) using connected enclosures all routed through a single set of drying tubes, (2) explaining that the membrane merely reduces the passage of water droplets in the air (Jurik at Abstract), and (3) explaining that

other words, it is not Patent Owner's burden to prove Jurik's membrane alone would not have worked. Rather, Petitioner must explain why a person of ordinary skill *would* have omitted the drying tubes and why the membrane alone *would* have worked in view of Jurik's contrary teachings. Petitioner's Reply thus attempts to shift the burden onto Patent Owner to disprove obviousness.

Petitioner's disregard of the drying tubes is even more problematic when considered in conjunction with its assertion that it would have been obvious to also duplicate Jurik's switch/valve. Reply at 13. Jurik explains on multiple occasions the need to provide a drying tube between the membrane and the switch to "reduce the likelihood that condensation will form within the valve." Jurik at 10:5-10, 10:38-42. Petitioner simply ignores whether drying tubes are even included in its own combination because they are not claimed. See Reply at 10 ("drying tubes' are neither required by claim 5 nor are they part of Petitioner's argument"), 11 ("Claim 5 does not expressly or impliedly require drying tubes"). Petitioner's approach here, again, uses claim 5 as a roadmap to select disparate elements from Jurik (here, the switch) while ignoring unclaimed elements that directly relate to and affect the combination (the drying tubes).

maintaining "a dry, controlled physical environment inside the automated luminaire is important for the continuing operation of the unit" (Jurik at 1:41-43).

Petitioner cannot simply ignore Jurik’s drying tubes merely because they are unclaimed. Petitioner’s Reply fails to show how the Petition meets the burden of explaining why a person of skill *would*—not *could*—have arrived at the proffered combination. Accordingly, the Board should find Petitioner has failed to demonstrate that claim 5 is unpatentable.

2. Petitioner ignores its burden to address Jurik’s contrary teachings

Petitioner disagrees that Jurik teaches away. Reply at 13. But Petitioner’s own citation to *Arctic Cat* demonstrates that Jurik teaches away: “Prior art teaches away when ‘a person of ordinary skill, upon reading the reference, . . . would be led in a direction divergent from the path that was taken by the applicant.’” Reply at 13 (citing *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1360 (Fed. Cir. 2017)). Here, a person of ordinary skill, upon reading Jurik, would be led in the direction of using “connected enclosures” (Jurik at 4:49-51) that rely on a “single water and humidity reducing system” (*id.* at 3:24-26), which provides the luminaire with the “ability to increase the number of enclosures [and] increas[e] the number of luminaire components that may be protected from damage or degradation” (*id.* at 4:43-49). *See also* POR at 16-17, 19-20. This direction is patently divergent from the path taken by Petitioner.

Regardless of whether Jurik amounts to a “teach away,” Petitioner bears the burden of demonstrating obviousness, including explaining why a person of ordinary skill *would* have modified the prior art in the manner asserted in view of the prior art’s teachings. *See, e.g., Samsung Display Co., Ltd. v. Polaris PowerLED Techs., LLC*, IPR2023-00771, Paper 40 at 57-60 (PTAB Oct. 11, 2024) (finding hindsight and explaining, “***the issue is not whether [the prior art] ‘teaches away’ from [the modification]*** The issue is whether a skilled artisan would have been motivated to do so based on teachings of the reference’”) (emphasis added).

Petitioner, however, does not address why a person of skill *would* have modified Jurik in view of Jurik’s contrary teachings, even on reply. *See* Reply at 13-14. Indeed, Petitioner does not confront the above teachings *at all*. While Petitioner may disagree that Jurik’s contrary teachings are a “teach away,” that does not automatically dispense with Petitioner’s burden to explain its combination in view of those teachings.

Here, again, Petitioner disguises its failure to prove obviousness by arguing Patent Owner has failed to show a teaching away. Petitioner looks to claim 5 and states that a combined enclosure is not excluded by claim 5. Reply at 13-14. Petitioner misses the point. The point is not whether claim 5 excludes a combined enclosure. The point is that Jurik—the prior art—excludes unconnected

enclosures. The claims of the challenged patent do not define the universe of relevance. Otherwise, a challenger can just select disparate elements from the prior art while ignoring all contrary evidence simply because the contrary evidence is unclaimed. Here, Petitioner seeks to modify Jurik in a manner divergent from Jurik's teachings without explaining why a person of ordinary skill *would* have done so.

For this reason, the Board should find Petitioner has failed to demonstrate that claim 5 is unpatentable.

3. Petitioner confirms that its Expert does not rely on the prior art for the proffered motivations

Conspicuously missing from Petitioner's Reply is any indication of ***where in the prior art*** the proffered motivations come from. Patent Owner squarely raised this issue. See POR at 18 ("Petitioner does not support these alleged motivations with any factual support . . ."), 20 (Petitioner cannot rely on conclusory expert testimony to conjure up a motivation . . ."). Petitioner's Reply fails to identify anything supporting motivation in the prior art, let alone point to where the Petition or the expert report originally relied on the prior art. This confirms the motivations spring forth—evidentiarily unsupported—from Petitioner's expert report.

Contrasted with Petitioner's showing, Patent Owner actually explained where Jurik—the prior art—teaches away from the proffered combination. See

POR at 16-19. Petitioner simply disagrees, citing no evidence from the prior art.

Reply at 13-15. This flips the parties' burdens upside down. Petitioner bears the burden of proving obviousness—based on evidence. It cannot simply invent motivations that are not only absent from—but antithetical to—the prior art and then declare Patent Owner has not disproved obviousness through evidence actually from the prior art.

Petitioner argues for the first time on Reply that “the necessity of testing each of the separate containers for a leak, and the benefit provided by independently testing each of multiple containers so as to isolate a leak are not inventive or unique to the [']373 Patent.” Reply at 16. It goes on to say “those principles or motivations are part of the common understanding of a person skilled in the art.” *Id.* The Board should entirely disregard these contentions because they are presented for the first time on Reply. Petitioner does not, and cannot, point to anywhere in the Petition where it argued that independent testing was a known problem. *See Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1367 (Fed. Cir. 2015) (finding no error in the Board's rejection of Petitioner's reliance on previously unidentified arguments).

Even if the Board were to consider these tardy contentions, they fare no better. Like Petitioner's other motivations, the motivation to separately test multiple containers is completely absent from the prior art of record. It is

undisputed that—evidentiarily—these motivations exist only in the challenged patent. The Board should not rely on a motivation existing only in the challenged patent raised solely⁵ on reply. As the Federal Circuit explained, defining the problem (here, separate testing) “represents a form of prohibited reliance on hindsight.” *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1377-78 (Fed. Cir. 2012) (“Often the inventive contribution lies in defining the problem in a new revelatory way.”). Here, Petitioner has proffered no evidence indicating separate testing was a known problem. *See, e.g., Emerson Elec. Co. v. Sipco, LLC*, IPR2015-01973, Paper 25 at 9-12 (PTAB Mar. 27, 2017) (“look[ing] to see if the Petitioner has provided evidence that this was a known problem in the art or just a problem defined by the patentee” and concluding Petitioner had failed to meet its burden of demonstrating obviousness).

Finally, the Board’s review for a reasoned basis to support Petitioner’s combination should be “searching” in degree. The Federal Circuit has explained that “[i]n cases in which ‘common sense’ is used to supply a missing limitation, as distinct from a motivation to combine, . . . our search for a reasoned basis for resort to common sense must be searching.” *DSS Tech. Mgmt., Inc. v. Apple Inc.*, 885 F.3d 1367, 1374–75 (Fed. Cir. 2018) (quoting *Arendi S.A.R.L. v. Apple Inc.*, 832

⁵ Even Petitioner’s expert does not say separate testing was a known problem.

F.3d 1355, 1363 (Fed. Cir. 2016). Here, Petitioner tardily uses common sense to supply a limitation absent from the prior art. See Reply at 15 (“motivations to add a second waterproof breathable valve”); 14 (“motivations to add a second valve”). Petitioner does not contend (nor could it) that the prior art includes examples of two waterproof breathable valves or two switches. Where common sense is invoked to supply the limitation itself, the Board’s examination should be searching.

Because Petitioner’s expert does not actually rely on the prior art for its motivations, the Board should find those motivations unpersuasive and confirm the patentability of claim 5.

4. Petitioner admits a duplicated valve satisfies claim 5 only when Jurik’s original valve is closed but ignores its burden to explain coordination between the valves

Petitioner effectively admits that merely duplicating Jurik’s valve would not “make the internal space of the base housing in air communication with the external space of the light fixture or not,” as required by claim 5. See Reply at 17-18. This is so because Petitioner only argues that a duplicated valve would satisfy claim 5 in a specific, narrow scenario: i.e., if “the existing valve 719/819 in Jurik prevents air from escaping the combined enclosure.” Reply at 18. In other words, some **coordination** between the valves is required to satisfy claim 5. This demonstrates Patent Owner’s point that Petitioner’s duplication argument is an

oversimplification and the analysis should instead begin with the claim as a whole.

See POR at 21-23

Petitioner's argument also (again) ignores its burden of showing obviousness. If **coordination** between the duplicated valve and the original valve is necessary, then Petitioner bears the burden to explain the reasons for such coordination. Petitioner provides no such explanation, even on reply. Amazingly, Petitioner does not even bother to assert that Jurik's existing valve *would* be closed during operation of the duplicated valve. Instead, Petitioner merely says the potential scenario of closing the existing valve could cause the second valve to satisfy the challenged claim. This—again—is just an assertion that the claim *could* be satisfied, not that it *would* be satisfied.

Petitioner's failure to even assert, let alone explain why Jurik's first valve *would* have closed to allow the duplicated valve to satisfy requirements of claim 5 is fatal to its case.

5. Petitioner's Johansen arguments are new and fail to demonstrate obviousness

Petitioner argues for the first time on Reply that it would have been obvious to include Johansen's dehumidifying device in Jurik rather than merely using Johansen to provide a motivation to duplicate Jurik's membrane. The Reply states that "[t]here is also no logical reason that the waterproof breathable valve on the

base enclosure of Johansen could not be used in Jurik.” Reply at 19. The Board should reject this argument for several reasons.

First, including Johansen’s dehumidifying device in Jurik is an entirely new argument. The Petition merely states that it would have been obvious to include a second breathable valve in Jurik in view of Johansen’s disclosure of the head and base having their own dehumidifying systems. Petition at 49-50. Nowhere does the Petition describe a combination that involves using Johansen’s dehumidifying device in Jurik’s luminaire. The Board should thus disregard this new argument. *See Ariosa Diagnostics*, 805 F.3d at 1367 (finding no error in the Board’s rejection of Petitioner’s reliance on previously unidentified arguments).

Second, even if the Board were to consider this new argument, it amounts to a *could*—not a *would*. Petitioner merely states that there is no reason Johansen’s dehumidifying system “***could*** not be used in Jurik.” Reply at 19 (emphasis added). Petitioner accuses Patent Owner of “effectively ignor[ing] Johansen” but forgets that the entirety of Petitioner’s remarks regarding Johansen exists in three short, cryptic paragraphs. Petition at 49-50. Nothing in those paragraphs indicates a combination that replaces Jurik’s membrane with Johansen’s dehumidifying system, let alone an explanation for why a person of ordinary skill *would*—not *could*—have made such a replacement.

Finally, there is no evidence that Johansen's dehumidifying device even qualifies as a "waterproof breathable valve," as recited in claim 5. The challenged patent states that a breathable valve allows "air communication" (Ex. 1001 at 2:3) to regulate "air pressure" (*id.* at 2:6-13). Nothing in Johansen, however, indicates that its dehumidifying system is capable of allowing air communication with the outside of the device. In fact, Johansen states that its membrane 12 only permits "hydrogen ions [to] pass through the membrane 12 to reach the environment B, [where] they combine with oxygen in the air." Ex. 1016 at 61-66. Oxygen and other parts of the air do not appear to be able to pass through Johansen's membrane.

Patent Owner respectfully reminds the Board that even if it were to consider Petitioner's new argument, it is not Patent Owner's burden to disprove obviousness. It is not Patent Owner's burden to show that Johansen's dehumidifying device is not a waterproof breathable valve. Instead, Petitioner bears the burden to show that Johansen's dehumidifying device is breathable and capable of air communication. It has not done so. Thus, Petitioner's newly introduced Johansen arguments fail.

6. Petitioner bears the burden of proving obviousness, even for unaddressed claims and limitations

Petitioner states that Patent Owner conceded unpatentability of several claims and limitations. Reply at 7,12. Patent Owner made no such concession. Patent Owner is not even required “to submit *any* response to the petition, either before or after institution.” *Fanduel, Inc. v. Interactive Games LLC*, 966 F.3d 1334, 1342 (Fed. Cir. 2020) (emphasis in original). Patent Owner’s choice to address only certain claims/limitations does not prevent the Board from finding Petitioner has failed to meet its burden of proving unpatentability, even for unaddressed claims and limitations. *See id.* (rejecting suggestion that lack of rebuttal evidence limited the “Board’s ability to decide for itself what the references would teach or suggest to a person of skill in the art.”).

B. Claim 7 (Ground 3)

It is difficult to respond to Petitioner’s bullet point arguments regarding claim 7 because they are as conclusory as Petitioner’s expert report. Reply at 21-22.

Petitioner declares that allowing independent testing and isolating leaks is based on a discussion of engineering common sense and does not involve impermissible hindsight. *Id.* at 21. Petitioner provides no reasoning beyond this bare statement. Petitioner also says its expert’s opinions are not merely conclusory

but are based on scientific principles. *Id.* at 22. Petitioner, however, cites no principles. Instead, Petitioner just repeats the proffered motivations of separate testing and isolating leaks copied from the challenged patent. *Id.* Apparently, the motivations themselves—without more—constitute the detailed scientific principles that support those same motivations. There are few better examples of conclusory opinions.

Patent Owner encourages the Board to review Petitioner’s expert report. It contains no “discussion” or even invocation of common sense. Rather, the report simply declares the motivation to “separately test the head enclosure and the base enclosure in order to isolate leaks.” Exhibit 1004 at ¶ 151. Nothing beyond this bare “I said so” assertion exists in the ensuing paragraphs, aside from a hindsight review of the challenged patent itself. *See id.* at ¶¶ 151-54. Again, the Board’s review for a reasoned basis here should be *searching* in degree, where alleged “common sense” is used to supply the missing limitation itself. *See DSS Tech.*, 885 F.3d at 1374–75 (quoting *Arendi*, 832 F.3d at 1363). Any such search will come up empty because Petitioner’s expert report contains only bare conclusions.

Petitioner’s teach away rebuttal arguments fares no better. Petitioner simply concludes, without any reasoning, that Jurik’s disclosure does not amount to a teaching away. As explained above, Jurik teaches away from separate enclosures.

But even if it did not, Petitioner still bears the burden of addressing Jurik’s contrary teachings. *See supra*, Section III.A.2.

For these reasons, the Board should find Petitioner has failed to demonstrate that claim 7 is unpatentable.

C. Claim 8 (Ground 3)

1. Petitioner concedes the patentability of claim 8 under Patent Owner’s construction for “synchronously”

Petitioner expressly “concedes that Jurik does not disclose or render obvious” claim 8 under Patent Owner’s construction for the term “synchronously.” Reply at 24. Therefore, under Patent Owner’s construction, the Board should confirm the patentability of claim 8.

2. Petitioner cannot point to anything to support obviousness beyond its expert’s *ipse dixit* statements

The Board should confirm the patentability of claim 8, even under Petitioner’s construction. The Reply shows that the underlying expert report contains nothing more than an *ipse dixit* recitation of motivations. Petitioner’s expert admits that Jurik “does not explicitly state that the control system 600 is configured to activate the heating elements . . . ‘at the same time’” but declares that it “would have [been] obvious to activate the heating elements at the same time.” Exhibit 1004 at ¶ 160. The **entirety** of Petitioner’s expert’s supporting rationale is contained at the end of paragraph 160 of his report, and reads:

It would have obvious to activate the heating elements at the same time in order to more evenly heat all internal areas of the connected enclosures (and avoid a hot spot caused by using only one element). In addition, it would have been obvious to activate the heating elements at the same time so as to reduce the time required to sufficiently increase the temperature inside the connected enclosures so as to adequately test the sealing performance.

Id. at ¶ 160.

That is it. He provides no further explanation. Nor does he cite the prior art. These conclusory statements, devoid of factual support, use the challenged patent as a roadmap and/or are simply the inherent logical results of activating multiple heating elements at the same time. *See* POR at 29-30.

Petitioner tries to puff up its expert's rationale as "carefully explain[ed]," citing to paragraphs 159 and 160 of the report. Patent Owner urges the Board to examine the cited paragraphs. No explanation exists beyond the conclusory statements reproduced above. Paragraph 159 concerns Jurik's disclosure and the beginning of paragraph 160 admits Jurik's disclosure does not teach activating elements at the same time. The *entirety* of the motivation to combine is reproduced above.

The reply again invokes common sense, citing “common knowledge or a scientific rationale.” Reply at 26. But even Petitioner’s expert is silent on this new reply argument and never mentions common sense. Pivotaly, Petitioner is invoking common sense, not to combine an element that exists in the prior art, but to supply the very limitation missing in the prior art. Petitioner’s expert admits that Jurik does not disclose the missing limitation. *See* Exhibit 1004 at ¶ 160 (“The Jurik reference does not explicitly state . . .”). Where common sense is used to supply a missing limitation, the Board’s search for a reasoned basis for resort to common sense must be *searching*. *DSS Tech.*, 885 F.3d at 1374–75 (quoting *Arendi*, 832 F.3d at 1363). Patent Owner respectfully submits that the above-quoted *ipse dixit* motivations, which represent the entirety of Petitioner’s rationale, fails to support obviousness whether under a searching standard, or otherwise.

Accordingly, the Board should find Petitioner has failed to demonstrate that claim 8 is unpatentable.

IV. CONCLUSION

For the foregoing reasons, Petitioner has failed to meet its burden of establishing the unpatentability of claims 5, 7, 8, 12, and 13 of the '373 patent.

Respectfully Submitted,

Dated: July 5, 2026

By: /P. Andrew Riley/
P. Andrew Riley
Lead Counsel

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the foregoing PATENT OWNER'S SUR-REPLY TO REPLY contains 5,569 words, excluding parts exempted under § 42.24(c), as measured by the word-processing system used to prepare this paper.

Date: July 5, 2026

Respectfully submitted,

By: /P. Andrew Riley/
P Andrew Riley
Lead Counsel

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), the undersigned certifies that on July 5, 2026, a copy of the foregoing **PATENT OWNER'S SUR-REPLY TO REPLY** was served by electronic mail on Petitioner at the following addresses:

HouPatMail@conleyrose.com
DallasPatents@dfw.conleyrose.com

Date: July 5, 2026

Respectfully submitted,

By: /P. Andrew Riley/
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