

2015-1177

---

IN THE  
**UNITED STATES COURT OF APPEALS**  
FOR THE FEDERAL CIRCUIT

---

IN RE: AQUA PRODUCTS, INC.

**Appeal from United States Patent and Trademark Office,  
Patent Trial and Appeal Board  
Case No. IPR2013-00159**

---

**REPLY BRIEF FOR APPELLANT  
AQUA PRODUCTS, INC.**

---

JAMES R. BARNEY  
TIMOTHY P. MCANULTY  
DAVID K. MROZ  
FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, LLP  
901 New York Avenue, NW  
Washington, DC 20001-4413  
(202) 408-4000

July 15, 2015

*Attorneys for Appellant  
Aqua Products, Inc.*

---

## CERTIFICATE OF INTEREST

Counsel for Appellant Aqua Products, Inc. certify the following:

1. The full name of every party represented by us is:

Aqua Products, Inc.

2. The name of the real party in interest represented by us is:

Fluidra, S.A.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party represented by us are:

Fluidra, S.A.

4. The names of all law firms and the partners or associates that appeared for the party now represented by us in the trial court or agency or are expected to appear in this Court are:

James R. Barney  
Timothy P. McAnulty  
David K. Mroz  
Michael A. Morin<sup>1</sup>  
FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, LLP

Jeffrey A. Schwab  
Anthony A. Coppola  
ABELMAN, FRAYNE & SCHWAB

---

<sup>1</sup> Mr. Morin is now with Latham & Watkins.

**Table of Contents**

	<b>Page</b>
I. INTRODUCTION .....	1
II. ARGUMENT IN REPLY .....	4
A. The Factual Bases for the Board’s Denial of Aqua’s Motion to Amend Are Reviewed for Substantial Evidence, Not Abuse of Discretion .....	4
B. Aqua Did Not Waive Its Arguments on the Controlled-Directional-Movement, Four-Wheels, and Filtered-Water-Jet Limitations.....	5
1. The Board Was on Notice of Aqua’s Controlled-Directional-Movement and Four-Wheels Arguments .....	5
2. The Board Was on Notice of Aqua’s Filtered-Water-Jet Argument .....	11
3. The PTO’s Unduly Restrictive 15-Page Limit for Motions to Amend Should Be Taken into Account.....	12
C. The Board’s Deficient Obviousness Analysis Warrants a Remand Regardless of Who Bears the Burden of Proof.....	13
1. Contrary to the PTO’s Argument, This Court’s Longstanding Obviousness Jurisprudence Applies Equally in the Context of a Motion to Amend During an IPR as It Does in Other Contexts.....	14
2. The Board’s One-Sentence Obviousness “Finding” Lacks Substantial Evidence .....	18
3. The Board’s Deficient Obviousness Analysis and Unsupported Findings Violate the APA .....	20
D. The PTO Fails to Address the Merits of Aqua’s Nonobviousness Arguments.....	21

E.	The Board Failed to Give Proper Consideration to the Objective Indicia of Nonobviousness .....	24
F.	The PTO's Interpretation of 35 U.S.C. § 316(e) Is Clearly Erroneous.....	26
III.	CONCLUSION.....	31

**TABLE OF AUTHORITIES**

	<b>Page(s)</b>
<b>Cases</b>	
<i>Abbvie Inc. v. Mathilda &amp; Terence Kennedy Inst. of Rheumatology Trust</i> , 764 F.3d 1366 (Fed. Cir. 2014) .....	28
<i>Allentown Mack Sales &amp; Serv., Inc. v. NLRB</i> , 522 U.S. 359 (1998).....	20
<i>Aro Mfg. Co. v. Convertible Top Replacement Co.</i> , 365 U.S. 336 (1961).....	15
<i>CFMT, Inc. v. Yeildup Int’l Corp.</i> , 349 F.3d 1333 (Fed. Cir. 2003) .....	14
<i>Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.</i> , 467 U.S. 837 (1984).....	30
<i>Eli Lilly &amp; Co. v. Teva Pharms. USA Inc.</i> , 557 F.3d 1346 (Fed. Cir. 2009) .....	19
<i>Ernst &amp; Ernst v. Hochfelder</i> , 425 U.S. 185 (1976).....	30, 31
<i>Fourco Glass Co. v. Transmirra Prods. Corp.</i> , 353 U.S. 222 (1957).....	29
<i>In re Gartside</i> , 203 F.3d 1305 (Fed. Cir. 2000) .....	7
<i>Gechter v. Davidson</i> , 116 F.3d 1454 (Fed. Cir. 1997) .....	19
<i>Idle Free Sys., Inc. v. Bergstrom, Inc.</i> , IPR2012-00027, 2014 WL 824156 (PTAB Jan. 7, 2014) .....	27
<i>In re Kahn</i> , 441 F.3d 977 (Fed. Cir. 2006) .....	26

*Lacks Indus., Inc. v. McKechnie Vehicle Components USA, Inc.*,  
 322 F.3d 1335 (Fed. Cir. 2003) .....28

*In re Lowry*,  
 32 F.3d 1579 (Fed. Cir. 1994) .....15

*Microsoft Corp. v. i4i Ltd. P’ship*,  
 131 S. Ct. 2238 (2011).....16, 17

*Microsoft Corp. v. Proxyconn, Inc.*,  
 No. 14-1542, 2015 WL 3747257 (Fed. Cir. June 16, 2015).....3, 4, 27

*Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*,  
 463 U.S. 29 (1983).....20

*N. Am. Container, Inc. v. Plastipak Packaging, Inc.*,  
 415 F.3d 1335 (Fed. Cir. 2005) .....24

*Nelson v. Adams USA, Inc.*,  
 529 U.S. 460 (2000).....9, 10, 12

*Rambus Inc. v. Rea*,  
 731 F.3d 1248 (Fed. Cir. 2013) .....26

*In re Sang-Su Lee*,  
 277 F.3d 1338 (Fed. Cir. 2002) .....20, 21

*Sanofi-Synthelabo v. Apotex, Inc.*,  
 550 F.3d 1075 (Fed. Cir. 2008) .....14, 23

*In re Sullivan*,  
 362 F.3d 1324 (Fed. Cir. 2004) .....4, 5, 20

*In re Sullivan*,  
 498 F.3d 1345 (Fed. Cir. 2007) .....25

*In re Thrift*,  
 298 F.3d 1357 (Fed. Cir. 2002) .....14

*W.L. Gore & Assocs., Inc. v. Garlock, Inc.*,  
 721 F.2d 1540 (Fed. Cir. 1983) .....15, 17

*Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*,  
683 F.3d 1356 (Fed. Cir. 2012) .....10

**Statutes**

35 U.S.C. § 42.20(c) .....27  
35 U.S.C. § 282(a) .....28  
35 U.S.C. § 316(a)(9).....30  
35 U.S.C. § 316(d) .....29, 30  
35 U.S.C. § 316(d)(3).....30  
35 U.S.C. § 316(e) .....*passim*

**Regulations**

37 CFR § 42.24(a)(1)(v) .....12  
80 Fed. Reg. 28561-66 (May 19, 2015).....13

**Other Authorities**

H.R. Rep. No. 112-98 (2011).....17

## I. INTRODUCTION

Of the various arguments presented in Aqua’s principal brief, the PTO focuses mainly on just one—the statutory-interpretation argument relating to the procedure for amending claims during an IPR. But Aqua only raised that argument as an alternative to its principal arguments, i.e., that (1) the Board’s obviousness analysis is *per se* deficient regardless of which party bears the burden of proof because the analysis fails to address all the claim limitations; (2) the Board’s one-sentence obviousness “finding” lacks substantial evidence; (3) the Board failed to consider Aqua’s secondary evidence of nonobviousness; and (4) the Board’s decision fails to satisfy the record-making requirements of the Administrative Procedure Act (“APA”). The PTO’s response to these arguments is anemic at best.

Regarding the first argument, the PTO responds that Aqua has made a “faulty presumption” by relying on decades of obviousness law holding that a proper obviousness analysis must address every limitation in a patent claim. PTO-Br. 16. According to the PTO, this longstanding obviousness jurisprudence no longer applies in the context of a motion to amend during an IPR because the patentee allegedly bears the burden to demonstrate patentability of the proposed claims. *Id.* at 17. But this is illogical.

Assuming *arguendo* that a patentee bears the burden of proving patentability over the prior art, the patentee must show by preponderance of the evidence that



the prior art fails to anticipate or render obvious the claimed invention. To determine whether the patentee has carried this burden, the Board must evaluate the claimed invention *as a whole*, including each limitation, to determine if the patentee has proven that the claimed invention as a whole is neither anticipated nor obvious. The Board cannot simply stop at the first limitation it believes the patentee has failed to show was missing in the prior art, because *any* missing limitation (or a lack of motivation to combine) will equally satisfy the patentee's burden. Thus, an obviousness analysis that fails to address all claim limitations, motivation to combine, and secondary evidence is *per se* deficient, regardless of which party bears the burden of proving invalidity or validity.

Perhaps recognizing this point, the PTO argues that Aqua waived any arguments concerning the “controlled-directional-movement” limitation, the “four-wheels” limitation, and the “filtered-water-jet” limitation. PTO-Br. 28-29. But this, too, is incorrect. All of these limitations were raised below as separate grounds for patentability. *See, e.g.*, A2285-93; A2396; A2400-02; A2803-06; A2479-80; A1033; A1055. Indeed, the four-wheels limitation was specifically discussed during oral argument *at the Board's urging*. A1055. The PTO fails to explain how a limitation that was specifically raised during oral argument can be deemed “waived.” Moreover, the PTO does not dispute that these three limitations are, in fact, missing from the *Henkin/Myers* combination.

The PTO has chosen not to respond to Aqua's APA argument at all. Aqua made this argument prominently in its principal brief, including in the Statement of Issues (Aqua-Br. 2) and in the Argument section (*id.* at 46-47 (arguing that the APA violation "independently warrants vacatur and remand of the Board's decision")). Yet the PTO has no response to it.

Regarding Aqua's statutory-interpretation argument, Aqua is mindful of this Court's recent decision in *Microsoft Corp. v. Proxyconn, Inc.*, No. 14-1542, 2015 WL 3747257 at \*12 (Fed. Cir. June 16, 2015), in which the Court declined to hold that "the Board's interpretation of § 42.20(c) in *Idle Free*—requiring the patentee to 'show patentable distinction [of the substitute claims] over the prior art of record,' . . . is plainly erroneous or inconsistent with the regulation or governing statutes." Aqua respectfully disagrees with that decision and submits that the PTO's interpretation of 35 U.S.C. § 316(e) is clearly erroneous. Nevertheless, as explained above, this appeal does not turn on that issue because the Board's defective obviousness analysis and unsupported findings independently warrant vacatur and remand regardless of who bears the burden of proof.

For the reasons explained below and in Aqua's principal brief, this Court should vacate the Board's denial of Aqua's motion to amend and remand for further proceedings consistent with this Court's obviousness jurisprudence and the APA.

## II. ARGUMENT IN REPLY

### A. The Factual Bases for the Board's Denial of Aqua's Motion to Amend Are Reviewed for Substantial Evidence, Not Abuse of Discretion

The PTO asserts that “[t]he Board’s decision to deny Aqua Products’ motion to amend, like other discretionary decisions on motions in such a proceeding, is reviewed for an abuse of discretion.” PTO-Br. 17. That is incorrect. This Court reviews Board decisions using the standards set forth in the APA. *In re Sullivan*, 362 F.3d 1324, 1326 (Fed. Cir. 2004). “Under that statute, [the Court will] set aside actions of the Board that are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, *and set aside factual findings that are unsupported by substantial evidence.*” *Id.* (emphasis added); *see also Proxycinn*, 2015 WL 3747257 at \*11 (applying this standard in reviewing the denial of a motion to amend during an IPR).

Here, Aqua challenges the Board’s conclusion that Aqua failed to demonstrate that substitute claims 22-24 are patentable over the *Henkin/Myers* combination. This conclusion was based on purported factual findings. *See, e.g.*, A51-52. (“Consequently, we *find* that with respect to the additional limitations recited in the substitute claims, there are a finite number of predictable solutions . . .”) (emphasis added). These purported factual findings should be

reviewed for substantial evidence, not for abuse of discretion. *Sullivan*, 362 F.3d at 1326.

**B. Aqua Did Not Waive Its Arguments on the Controlled-Directional-Movement, Four-Wheels, and Filtered-Water-Jet Limitations**

In a single paragraph at the end of its brief, the PTO argues that Aqua waived its arguments on the controlled-directional-movement limitation in claims 22-24, the four-wheels limitation in claim 23, and the filtered-water-jet limitation in claim 24 because Aqua allegedly did not raise these arguments before the Board. PTO-Br. 28-29. As explained below, however, Aqua *did* raise these arguments before the Board, and the Board was fully on notice of each of them.

**1. The Board Was on Notice of Aqua’s Controlled-Directional-Movement and Four-Wheels Arguments**

Aqua identified the amendments in its motion to amend by underlining the newly-added terms. A2280-83. Through these annotations, which included the controlled-directional-movement and four-wheels limitations, Aqua emphasized the specific features it was relying on to overcome the invalidity theories asserted by the Board in its institution decision. Thus, the Board had notice about which claim terms were relevant.

Then, in the first sentence of the argument section in its motion to amend, Aqua stated that “[t]he amended language relates to the directional positioning of the wheels; and the directional discharge which establishes a defined force vector.”

A2283. Focusing on the wheel-positioning concept, Aqua next explained that the newly-added limitations relating to the supports and wheels were designed to help “control the directional movement” of the pool cleaner, and that the “*pair of wheels/rotationally-mounted supports located at one/both ends* of [the] apparatus” help achieve this goal. *Id.* (emphases added). Thus, Aqua was clear in its motion to amend that the four-wheel design was an important feature in the amended claims and that this feature contributed to the cleaner’s newly-claimed controlled-directional-movement requirement.

Aqua distinguished its invention from prior-art suction-side cleaners and prior-art pressure-side cleaners (such as *Henkin*) by emphasizing that these particular prior-art cleaners moved randomly—the opposite of the controlled directional movement required in claims 22-24. A2285-86. Aqua also relied on the controlled-directional-movement limitation when arguing why its claims were patentable over *Myers*. A2289 (distinguishing *Myers* because *Myers* has “angled brushes,” whereas claims 22-24 require “wheels” that are “axially mounted transverse to the longitudinal axis . . . to *control the directional movement*” of the pool cleaner) (emphasis added). Thus, in its motion to amend, Aqua clearly relied on the controlled-directional-movement feature in claims 22-24 to distinguish both *Henkin* and *Myers*.

Aqua's arguments were reinforced by the Erlich Declaration filed in support of the motion to amend. In that declaration, Mr. Erlich emphasized the random movement of *Henkin* and *Myers* (A2782; A2784; A2789-90; A2797-98; A2803-04) and relied on the controlled-directional-movement feature to distinguish claims 22-24 from the *Henkin/Myers* combination (A2803-05).

Aqua's arguments on the controlled-directional-movement and four-wheels features were addressed again at the oral hearing. Aqua presented demonstrative exhibits emphasizing the random movement of *Myers* and *Henkin* (A2476-77; A2479-80) and explaining that the controlled-directional-movement feature distinguished the '183 patent from these references (A2477; 2480).<sup>1</sup>

At the oral hearing, Aqua's counsel explained "how the claims changed" with the amendments: "we no[] longer have this varying front because they're actually located rotational supports, approximate to front [and] the rear." A1038:18-A1039:2. Aqua's counsel reiterated that "these supports or wheels control the directional movement" of the pool cleaner. A1039:3-7. Aqua's counsel made additional statements emphasizing the controlled-directional-movement feature in the amended claims (including the four-wheels limitation), and also explained how such movement distinguished the claims from prior-art devices that moved randomly. *See, e.g.*, A1041:1-2 (stating that "the wheels are

---

<sup>1</sup> The oral hearing transcript and demonstrative exhibits are part of the appellate record. *See In re Gartside*, 203 F.3d 1305, 1314 (Fed. Cir. 2000).

the guiding elements to control the direction of movement” when discussing the amended claims); A1041:12-19 (explaining that the new limitations in claim 22 were not just intended to “control movement” but to “to control *directional* movement.”) (emphasis added); A1041:20-21 (stating that “the angular brushes of Myers enable erratic motion, but don’t control directional motion” when discussing amended claim 22).

Aqua also argued at the hearing that the “rotationally mounted axially mounted supports . . . located in front[] and the rear” of the pool cleaner (i.e., the four wheels) contribute to patentability over “the prior art raised” (i.e., *Henkin* and *Myers*). A1042:3-10. Notably, counsel for Petitioner objected during the hearing when he believed Aqua’s counsel had raised an argument that had not been briefed (*see, e.g.*, A1029:1-3; A1042:19-A1043:2; A1053:12-19)—but he never objected to any of the arguments described above.

Leaving no doubt that the Board was on notice of Aqua’s controlled-directional-movement and four-wheels arguments, the Board asked the following question of Petitioner’s counsel regarding amended claim 23: “Counselor, does it matter that Henkin and Pansini are three-wheeled devices and at least in Claim 23 of the substitute claim, patent owner is talking about first and second pairs of wheels?” A1055:13-16. In its response to this question, Petitioner’s counsel

admitted both that “Myers doesn’t disclose two sets of wheels” and that “Henkin doesn’t disclose two sets of wheels.” A1055:17-24.

The PTO argues that Aqua’s arguments on the controlled-directional-movement and four-wheels limitations are waived because “[t]he only asserted basis for the patentability of claims 22-24 over Henkin and Myers in Aqua Products’ Replacement Corrected Motion to Amend (or in the Reply in Support of the Motion to Amend) was the so-called ‘rearwardly-displaced-vector limitation.’” PTO-Br. 28.<sup>2</sup> The PTO then asserts, without any explanation, that the controlled-directional-movement and four-wheels limitations “were never presented to the Board.” PTO-Br. 29. This is simply untrue.

The principle of waiver “does not demand the incantation of particular words; rather, it requires that the lower court be fairly put on notice as to the substance of the issue.” *Nelson v. Adams USA, Inc.*, 529 U.S. 460, 469 (2000). Thus, the analysis is not, as the PTO implies, one of procedural rigidity requiring certain arguments to be made under certain headings in a 15-page motion to

---

<sup>2</sup> It appears the PTO is focusing only on the section of Aqua’s motion to amend titled “Substitute Claims are Not Obvious in View of Henkin and Myers,” which spans just over a page. But the *entire pleading* was titled “Patent Owner’s Replacement Corrected Motion to Amend Claims,” and all portions of that pleading should be considered, especially in view of the restrictive 15-page limit. It also appears the PTO has ignored the Erlich Declaration accompanying Aqua’s motion to amend as well as the oral argument.



amend. Instead, the analysis looks to whether the substance of an issue was presented such that the court was fairly put on notice. *Id.*

Here, the evidence is overwhelming that the Board was on notice of Aqua's controlled-directional-movement and four-wheels arguments. In its motion to amend, Aqua (1) underlined the controlled-directional-movement and four-wheels limitations, putting the Board on notice of their relevance; (2) explained how these limitations related to each other and allowed for controlled-directional movement; (3) explained the importance of controlled-directional movement; (4) described how this controlled-directional movement distinguished the substitute claims from the *Henkin* and *Myers* cleaners, which moved randomly; and (5) submitted a declaration reinforcing how the controlled-directional-movement feature distinguished the substitute claims from the *Henkin/Myers* combination. That Aqua raised these arguments again at the oral hearing only further supports a finding of no waiver, as does the Board's *sua sponte* question to Petitioner on whether the four-wheels limitation in claim 23 was disclosed in the prior art. Based on this record, there can be no waiver of Aqua's argument that the controlled-directional-movement and four-wheels limitations provide a basis for patentability over the *Myers/Henkin* combination. *See Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1360 n.3 (Fed. Cir. 2012) (finding no

waiver where party presented “the essence of its present arguments” to the trial court).

## **2. The Board Was on Notice of Aqua’s Filtered-Water-Jet Argument**

As with the controlled-directional-movement limitation and the four-wheels limitation, Aqua identified the filtered-water-jet limitation in its motion to amend through an underlined annotation. A2282. As described above, the entire purpose of the amended claims (including the filtered-water-jet limitation) was to add limitations making the substitute claims patentable over the invalidity theories in the Board’s institution decision, one of which was the *Henkin/Myers* obviousness combination. A95. Thus, the Board was on notice that Aqua was relying on the filtered-water-jet limitation to overcome all invalidity theories in the institution decision, including the *Henkin/Myers* theory.

Aqua also described how the “filtered-water-jet” feature distinguished the claimed invention from the *Henkin/Myers* combination in its demonstrative exhibits used at the oral hearing. In those exhibits, Aqua asserted that the “[d]irectional discharge conduit” in *Henkin* “does not discharge filtered water.” A2479.<sup>3</sup> At the oral hearing, Aqua stated that “if you look again at *Henkin*, you

---

<sup>3</sup> Aqua also made the same point for the *Pansini* reference, which is not at issue in this appeal. A2478.

will see that the pump doesn't—his little nozzle 90 [i.e., the jet] does not deal with filtered water.” A1033:18-22.

Relying in part on the fact that the *Henkin* nozzle does not discharge filtered water, Aqua's counsel concluded:

I suggest to you that on the factual record with the person of most great interest and knowledge of Henkin, it is and cannot be made obvious. It is and cannot be combined with Myers. It's totally different in terms of its concept, and it is simply not an appropriate reference to find that claim 21 or any of the claims are unpatentable, alone in combination or [] otherwise.

A1034:21-A1035:4. That the *Henkin* nozzle does not discharge filtered water is especially important in the *Henkin/Myers* combination relied on by the Board, because that combination uses *Henkin's* unfiltered nozzle. Aqua-Br. 51-52. Because the Board was on notice of Aqua's argument that the filtered-water-jet limitation of claim 24 distinguished this claim over the *Henkin/Myers* combination, this issue was not waived. *See Nelson*, 529 U.S. at 469.

### **3. The PTO's Unduly Restrictive 15-Page Limit for Motions to Amend Should Be Taken into Account**

In considering whether Aqua waived certain arguments in its motion to amend, the Court should take into account the unduly restrictive page limit imposed by the PTO for such motions. Under 37 CFR § 42.24(a)(1)(v), Aqua had only 15 pages to list its claims in annotated form (which consumed three pages alone) and then to argue that its substitute claims (1) did not enlarge the claim

scope; (2) were supported by the original disclosure in the '183 patent; and (3) were patentable over three different invalidity theories, two of which involved combinations of references. Applying a strict and unforgiving waiver standard to Aqua's motion under these circumstances, as the PTO now seeks to do, would be unreasonable and not in keeping with principles of due process and fair play.<sup>4</sup>

It also bears noting that the Board did not find these three limitations waived. Instead, the Board purported to address these limitations in its one-sentence finding that, "with respect to the additional limitations recited in the substitute claims [including these three limitations], there are a finite number of predictable solutions and . . . the subject matter of the substitute claims is not the product of innovation, but of ordinary skill and common sense." A51-52. In other words, the Board's opinion was not based on waiver but, rather, on a purported finding that these three limitations were merely "common sense." As will be explained below, that finding lacks substantial evidence.

**C. The Board's Deficient Obviousness Analysis Warrants a Remand Regardless of Who Bears the Burden of Proof**

Although Aqua believes the PTO's interpretation of 35 U.S.C. § 316(e) is incorrect, this appeal does not turn on that issue. Instead, as Aqua made clear in its principal brief, "regardless of which party had the burden to show unpatentability

---

<sup>4</sup> Indeed, the PTO recently proposed a rule change that would enlarge the page limit for motions to amend to 25 pages, excluding any annex listing the annotated claims. 80 Fed. Reg. 28561-66 (May 19, 2015).

or patentability, the PTAB's truncated analysis, which focused on just a *single* claim limitation, is insufficient to support either conclusion." Aqua-Br. 40. In other words, the Board's deficient obviousness analysis constitutes an independent ground for vacating and remanding the decision regardless of this Court's ruling on the burden-of-proof issue.

**1. Contrary to the PTO's Argument, This Court's Longstanding Obviousness Jurisprudence Applies Equally in the Context of a Motion to Amend During an IPR as It Does in Other Contexts**

In its principal brief, Aqua cited decades of obviousness law from this Court holding that an obviousness analysis must consider the claimed invention as a whole and therefore must consider all of the claimed limitations. *See, e.g., Sanofi-Synthelabo v. Apotex, Inc.*, 550 F.3d 1075, 1086 (Fed. Cir. 2008) ("The determination of obviousness is made with respect to the subject matter as a whole, not separate pieces of the claim."); *CFMT, Inc. v. Yeildup Int'l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) ("[O]bviousness requires a suggestion of all limitations in a claim.") (quoting *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)); *In re Thrift*, 298 F.3d 1357, 1366 (Fed. Cir. 2002) (vacating Board's obviousness decision because it failed to address all limitations and instead offered only a "very general and broad conclusion of obviousness").

In response, the PTO seeks to sweep aside this entire body of law on the ground that motions to amend during an IPR are different than patent examination.

According to the PTO, “[t]he fundamental flaw in Aqua Products’ argument is that it relies on obviousness jurisprudence applied during patent examination under the faulty presumption that a ‘motion to amend’ a patent during an inter partes review proceeding should be treated the same as an amendment submitted during examination.” PTO-Br. 16. But this is not a “faulty presumption” on Aqua’s part; it is a correct and logical application of existing law to the new IPR procedure.

This Court’s invalidity jurisprudence was developed over decades in part to prevent the tendency of some fact-finders to reduce patent claims to an overall “gist” or “heart” of the invention. As the Supreme Court held more than 50 years ago, “there is no legally recognizable or protected ‘essential,’ ‘gist,’ or ‘heart’ of the invention in a combination patent.” *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 344-45 (1961). Therefore, in evaluating invalidity or patentability, *all* claim limitations must be considered, i.e., the invention “must be considered as a whole.” *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1548 (Fed. Cir. 1983); *accord In re Lowry*, 32 F.3d 1579, 1582 (Fed. Cir. 1994) (the PTO “must consider *all claim limitations* when determining patentability of an invention over the prior art”) (emphasis added).

Contrary to the PTO’s assertion, this longstanding jurisprudence did not suddenly become irrelevant with the enactment of the America Invents Act. Assuming *arguendo* that patentees bear the burden of proving the patentability of

proposed substitute claims during an IPR, the same legal principles should apply. For instance, if a proposed substitute claim recites limitations A, B, C, and D, the patentee can meet its burden by showing that at least one of those limitations is missing in the relevant prior-art references or combinations, or that there existed no motivation to combine the references. If the patentee fails to carry this burden with respect to limitation A, that does not end the inquiry because the patentee still has an opportunity to meet its burden by showing the absence of limitations B, C, or D, a lack of motivation to combine the references, and/or compelling secondary indicia of nonobviousness.

The PTO contends that a patentee seeking to amend claims in an IPR bears the “burden of proof” to demonstrate patentability of the proposed claims. PTO-Br. 17 (citing *Idle Free Sys., Inc. v. Bergstrom, Inc.*, IPR2012-00027, 2014 WL 824156 at \*19 (PTAB Jan. 7, 2014)). A “burden” is an evidentiary concept, traditionally encompassing both a burden of production and a burden of persuasion. *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2245 n. 4 (2011). The burden of persuasion specifies “which party loses if the evidence is balanced,” while the burden of production dictates “which party must come forward with evidence at various stages in the litigation.” *Id.*

In the context of a motion to amend during an IPR, the patentee and the petitioner are the two parties presenting evidence, and the Board is the factfinder.

The Board must weigh the evidence presented by both sides and determine if the patentee has shown by preponderance of the evidence that the claimed invention *as a whole* is neither anticipated nor rendered obvious by the prior art. The Board cannot perform this adjudicatory function unless it considers the claimed invention *as a whole*, since that is a bedrock requirement of any proper obviousness analysis. *See W.L. Gore*, 721 F.2d at 1548. If the Board merely focuses on one limitation or improperly reduces the claimed invention to a “gist,” then it has failed in its fundamental duty to weigh both sides’ evidence and determine whether the patentee has carried its burden of showing patentability.

Put differently, since an IPR is an “adjudicative proceeding” (PTO-Br. 4) and the Board is serving an adjudicative function, the same invalidity jurisprudence that applies to district courts should also apply to the Board. *See* H.R. Rep. No. 112-98, pt. 1 at 8 (2011) (IPR proceedings are designed “to review the validity of a patent . . . in a court-like proceeding.”). It makes no difference which party bears the burden of proof because the only thing the burden dictates is “which party loses if the evidence is balanced.” *i4i*, 131 S. Ct. at 2245 n. 4.

Here, the Board’s obviousness analysis is *per se* deficient under this Court’s longstanding obviousness jurisprudence and should be vacated for this reason alone. This Court should reject the PTO’s invitation to abandon over 50 years of invalidity jurisprudence merely because the burden of proof (i.e., who wins in a



tie) has allegedly shifted from the challenger to the patentee in the context of IPR motions to amend.

## **2. The Board’s One-Sentence Obviousness “Finding” Lacks Substantial Evidence**

As explained in Aqua’s principal brief, the Board focused almost entirely on just one limitation in the substitute claims—the “rearwardly-displaced-vector” limitation. A50-52. For all the other limitations in the claims, including the controlled-directional-movement limitation, the four-wheels limitation, and the filtered-water-jet limitation, the Board issued a conclusory, one-sentence “finding” as follows:

Consequently, we find that with respect to the additional limitations recited in the substitute claims, there are a finite number of predictable solutions and that the subject matter of the substitute claims is not the product of innovation, but of ordinary skill and common sense.

A51-52 (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007)). This is the *sum total* of the Board’s analysis regarding all the other limitations of substitute claims 22-24. The Board cited no evidence to support this purported “finding.” For instance, it cited no testimony from a person of ordinary skill in the art and no documents in the record. *See* A51-52. Nor did the Board provide any additional explanation on where these additional limitations can be found in the prior art or why it would have been obvious to include them in the *Henkin/Myers* combination. *Id.* Thus, this purported “finding” lacks substantial evidence.

As the PTO emphasizes in its brief, an IPR is an “adjudicative proceeding.” PTO-Br. 4. Accordingly, the Board is bound by the same rules that apply to other adjudicative proceedings like district court litigations. In any adjudicative proceeding, irrespective of who has the burden of proof, this Court has emphasized that the fact-finder *must* provide reasoning so that this Court has something to review:

Necessary findings must be expressed with sufficient particularity to enable our court, without resort to speculation, to understand the reasoning of the Board, and to determine whether it applied the law correctly and whether the evidence supported the underlying and ultimate fact findings.

*Gechter v. Davidson*, 116 F.3d 1454, 1457 (Fed. Cir. 1997); *see also id.* at 1458 ([L]ike a district court opinion, a Board opinion must contain sufficient findings and reasoning to permit meaningful appellate scrutiny.”). This is true regardless of the standard of review on appeal. *See, e.g., Eli Lilly & Co. v. Teva Pharms. USA, Inc.*, 557 F.3d 1346, 1354 (Fed. Cir. 2009) (“[T]he district court here did not provide sufficient findings and reasoning to permit meaningful appellate scrutiny. Thus, regardless of whether we review the district court’s order de novo or for an abuse of discretion, the order should be vacated.”)

Here, the Board failed to provide “sufficient particularity” to support its finding that all the other limitations in substitute claims 22-24 would have been obvious to a person of ordinary skill in the art at the time of the claimed invention,

leaving this Court with no meaningful way to review that purported finding. For this reason alone, the Board's decision should be vacated and remanded. *Sullivan*, 362 F.3d at 1326 (in reviewing Board decisions, the Court must "set aside factual findings that are unsupported by substantial evidence").

### **3. The Board's Deficient Obviousness Analysis and Unsupported Findings Violate the APA**

The APA ensures that litigants before an agency tribunal will get a logical and rational explanation for the agency's action. *Allentown Mack Sales & Serv., Inc. v. NLRB*, 522 U.S. 359, 374 (1998). Accordingly, an agency action can only be upheld under the APA if the agency "articulate[d] a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'" *Motor Vehicle Mfrs. Ass'n of United States, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines, Inc. v. U.S.*, 371 U.S. 156, 168 (1962)). The "[d]eferential judicial review under the Administrative Procedure Act does not relieve the agency of its obligation to develop an evidentiary basis for its findings." *In re Sang-Su Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002).

Here, the Board failed to meaningfully address the controlled-directional-movement limitation in claims 22-24, the four-wheels limitation in claim 23, and the filtered-water-jet limitation in claim 24. And contrary to the requirements of the APA, the Board developed no evidentiary basis for its purported finding that

the “additional limitations recited in the substitute claims” (including the three limitations identified above) are “not the product of innovation, but of ordinary skill and common sense.” A51-52. This type of finding ordinarily requires evidence reflecting the understanding of a person of ordinary skill in the art at the time of the claimed invention, such as expert testimony or contemporaneous documentation. Yet the Board cited no such evidence. *See* A51-52 (citing nothing). This is clearly a violation of the APA’s record-making requirements. *See Sang-Su Lee*, 277 F.3d at 1345 (when the Board relies on “general knowledge” to support a finding of obviousness, “that knowledge must be articulated and placed on the record. The failure to do so is not consistent with either effective administrative procedure or effective judicial review. The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies.”).

The PTO apparently has no answer to this APA argument, having chosen not to address it in its principal brief. Accordingly, this issue is ripe for a decision and independently warrants vacatur of the Board’s decision. *See Id.* at 1346 (vacating and remanding Board’s decision for failure to comply with the APA).

**D. The PTO Fails to Address the Merits of Aqua’s Nonobviousness Arguments**

The reason Aqua incorporated the rearwardly-displaced-vector and the controlled-directional-movement limitations into claims 22-24, the four-wheels

limitation to claim 23, and the filtered-water-jet limitation to claim 24 was to distinguish the prior art asserted by the Board in the institution decision, including the *Henkin/Myers* combination. A2278-80; A95. Through these limitations, Aqua narrowed the claims to require controlled-directional movement driven by a uniquely positioned jet instead of a computerized drive motor. Aqua-Br. 14-15; A79-80 at 10:41-11:3; A83 at 18:11-20; A2778-79. No prior-art device operated in this manner. The prior-art cleaners with controlled-directional movement required computerized drive motors and were expensive to maintain and operate. Aqua-Br. 11. The prior-art cleaners with jet-drive propulsion (e.g., *Henkin*) moved randomly, increasing the time and electrical power needed to clean the pool. *Id.* at 9-11, 20-25.

The newly-added limitations in claims 22-24 resulted in a superior pool cleaner that had optimal features (i.e., controlled-directional movement driven by a jet that discharges filtered water) and eliminated major problems plaguing the prior art (i.e., random, inefficient movement and the need for expensive components such as computerized drive motors). Aqua-Br. 12-15; A79-80 at 10:41-11:3; A83 at 18:11-20; A2786.

In its brief, the PTO focuses only on the rearwardly-displaced-vector limitation and fails to address the claimed invention as a whole. PTO-Br 25-28. Thus, the PTO's analysis, like the Board's, is legally flawed. *Sanofi-Synthelabo*,

550 F.3d at 1086. The PTO fails to substantively address any of Aqua's arguments on the controlled-directional-movement limitation, the four-wheels limitation, and the filtered-water-jet limitation. The PTO does not attempt to show how the Board's one-sentence obviousness conclusion is supported by substantial evidence for these three limitations. Indeed, the PTO apparently does not dispute that these limitations are, in fact, missing from the *Henkin/Myers* combination.

Regarding the rearwardly-displaced-vector limitation, the PTO contends this limitation is met by *Henkin's* disclosure of a "directionally adjustable nozzle 90" that can be manually adjusted by the user. PTO-Br. 26. The PTO asserts that, because this nozzle facilitates climbing vertical surfaces and working out of corners, it is controlling the motion of the *Henkin* device around the pool. *Id.* The flaw in the PTO's argument is that while the *Henkin* nozzle can be used to generate motion, this motion is *random*. Aqua.-Br. 20-23. The *Henkin* device does not clean the pool in a *controlled directional* manner—it does so randomly. *Id.*

The jet in claims 22-24, in contrast, must promote controlled-directional movement. That is why it is positioned such that the vector is directed behind the cleaner's front supports (or wheels). Aqua-Br. 13-15, 52-55. Positioning the jet in this manner enhances the stability and control of the cleaner's directional movement. *Id.* *Henkin* says nothing about positioning the jet to increase stability and control in directional movement, which is not surprising given that *Henkin's*

jet is intended to facilitate *random* movement. As explained in Aqua's opening brief (at 52-55), adjusting the nozzle in *Henkin* such that the resultant force vector points behind the axis of the front wheels would inhibit the hypothetical *Henkin/Myers* device from operating as designed, i.e., with random movement. *See, e.g.*, A2520 at 1:45-51.

The PTO's contention that the rearwardly-displaced-vector limitation does not preclude random motion is flawed. PTO-Br. 26-27. The PTO relies on an embodiment of the '183 patent that is described as capable of moving in "controlled random motions with respect to the bottom surface of the pool or tank." PTO-Br. 27. Claims 22-24, however, were narrowed to exclude this embodiment. *See N. Am. Container, Inc. v. Plastipak Packaging, Inc.*, 415 F.3d 1335, 1346 (Fed. Cir. 2005) (explaining that claims can be narrowed to exclude embodiments). Whereas the original claims allowed *any* type of movement, which would have included random movement, substitute claims 22-24 were amended to require controlled-*directional* movement. A2280-83. Thus, these claims no longer cover the "controlled random motion" embodiment described in the '183 patent.

**E. The Board Failed to Give Proper Consideration to the Objective Indicia of Nonobviousness**

The PTO incorrectly asserts that "no secondary considerations were asserted with respect to substitute claims 22-24." PTO-Br. 27. In fact, as stated in Aqua's opening brief (at 56-57), an inventor declaration was submitted "in support of

Patent Owner's Replacement Corrected Motion *to Amend Claims* and Patent Owner's Response to the Petition for *Inter Partes* review." A2772 (emphasis added). Regardless of its merits or the weight to which it may be entitled, this declaration constitutes evidence that was submitted in support of substitute claims 22-24, and the Board erred in failing to consider it. *See In re Sullivan*, 498 F.3d 1345, 1352 (Fed. Cir. 2007) (finding that declarations are "relevant as evidence" and must be considered in the obviousness analysis).

Moreover, the inventor declaration targets the important controlled-directional-movement limitation of claims 22-24 and shows that this feature satisfied a long-felt need and contributed to commercial success. A2790-91 ("[T]he *efficient movement of the cleaner* saved time, energy and wear of the cleaner at a much lower cost than other commercially available robotic motor driven cleaners.") (emphasis added); A2780 ("Aqua Products' jet drive provided a less expensive, reliable and less complex robotic cleaner that would *clean the entire pool in a much faster and more thorough way* than any other robotic cleaner.") (emphasis added). Thus, a nexus exists between the evidence presented and the controlled-directional-movement limitation in substitute claims 22-24.

Relying on *In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006), the PTO argues the declaration was insufficient because "[s]tatements from the inventor of the patent, which generally discuss the benefits of the invention, without pointing to



specific claim limitations, do not amount to actual evidence of long-felt need.” PTO-Br. 28. But *In re Kahn* does not stand for this proposition. That case had nothing to do with declarations. An inventor, who proffered no evidence of objective indicia of nonobviousness, asked this Court to take judicial notice of a long-felt need. *Kahn*, 441 F.3d at 990. In rejecting this request, this Court stated that the applicant must “submit actual evidence of long-felt need, as opposed to argument.” *Id.* In this case, however, evidence has been provided in the form of a declaration.

It is true that the Board performed a secondary-factors analysis on original claim 21, and some of this analysis has relevance to claims 22-24. But the Board never addressed the secondary evidence related to the controlled-directional-movement limitation, which is not in claim 21. Thus, this issue remains unaddressed, and a remand is necessary to cure the error. *See Rambus Inc. v. Rea*, 731 F.3d 1248, 1256-57 (Fed. Cir. 2013) (vacating and remanding because the PTO failed to consider secondary evidence of nonobviousness).

**F. The PTO’s Interpretation of 35 U.S.C. § 316(e) Is Clearly Erroneous**

Aqua presents this statutory-interpretation argument only as an alternative to its principal arguments set forth above, each of which *independently* warrants vacatur and remand regardless of how this Court resolves the burden-of-proof question.

In *Proxycorn*, this Court declined to hold that “the Board’s interpretation of § 42.20(c) in *Idle Free*—requiring the patentee to ‘show patentable distinction [of the substitute claims] over the prior art of record,’ . . . is plainly erroneous or inconsistent with the regulation or governing statutes.” 2015 WL 3747257 at \*12. Aqua respectfully disagrees with this decision and submits that the PTO’s interpretation of 35 U.S.C. § 316(e) is clearly erroneous.

Section 316(e) states unambiguously that “the *petitioner* shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 316(e) (emphasis added). This language makes no distinction as to whether “a proposition of unpatentability” is asserted against an original claim or a proposed substitute claim. Indeed, “unpatentability” (as opposed to “invalidity”) is generally understood to pertain both to issued claims and claims that have not yet been allowed. Thus, “a proposition of *unpatentability*” is a broad phrase that covers both types of claims.

The PTO responds that “the statute providing for motions to amend in inter partes review proceedings places the burden of showing patentability on the patent owner when it states, ‘the patent owner may file one motion to amend the patent,’ as the movant bears the burden on a motion.” PTO-Br. 19 (citing 35 U.S.C. § 316(d)). Thus, the PTO contends that the “motion” language in § 316(d) trumps

the “burden” language in § 316(e). But the traditional principles of statutory construction strongly indicate otherwise.

First, the plain language of § 316(e) states that “petitioner *shall* have the burden of proving *a proposition of unpatentability*.” 35 U.S.C. § 316(e) (emphasis added). Contrary to the PTO’s argument, this provision is not limited to issued claims. Indeed, the term “unpatentability” is generally understood to apply both to issued claims and pending or proposed claims (i.e., claims under examination). *See, e.g., Abbvie Inc. v. Mathilda & Terence Kennedy Inst. of Rheumatology Trust*, 764 F.3d 1366, 1379 (Fed. Cir. 2014) (discussing whether claims in an issued patent were “patentable” or “unpatentable” under 35 U.S.C. § 103); *Lacks Indus., Inc. v. McKechnie Vehicle Components USA, Inc.*, 322 F.3d 1335, 1355 (Fed. Cir. 2003) (referring to patent application claims that were “reject[ed] for unpatentability”). In contrast, the narrower term “invalidity” generally pertains to already-issued claims that a challenger is seeking to invalidate. *See, e.g., 35 U.S.C. § 282(a)* (explaining that a “presumption of validity” attaches to issued patent claims).

The PTO attempts to rewrite § 316(e) when it states: “Aqua Products is correct that the AIA places a burden on petitioners: the burden of proving the unpatentability of *claims upon which review has been instituted*.” PTO-Br. 19-20 (emphasis added). Section 316(e) says nothing about “claims upon which review

has been instituted.” In fact, it does not even mention “claims.” Instead, it speaks broadly of “a proposition of unpatentability.” It is difficult to imagine how Congress could have used a broader phrase to express the notion that petitioners *shall* bear the burden of proving *any* proposition of unpatentability, regardless of whether it is asserted against an issued claim or a proposed substitute claim. Thus, the plain language of the statute strongly supports Aqua’s interpretation, not the PTO’s.

Second, the Supreme Court has long held that specific provisions in a statute trump more general provisions. *See Fourco Glass Co. v. Transmirra Prods. Corp.*, 353 U.S. 222, 228 (1957) (“However inclusive may be the general language of a statute, it will not be held to apply to a matter specifically dealt with in another part of the same enactment.”) (citations omitted). Here, there is a specific provision that deals with the burden of proving unpatentability and a more general provision that deals with how patent owners can amend claims. Of these two provisions, when it comes to the question of who bears the burden of proving a proposition of unpatentability, § 316(e) should control because it deals *specifically* with that concept, whereas § 316(d) does not. Put differently, there is no need to hunt through § 316(d) for inferences about who bears the burden of proving unpatentability or patentability when § 316(e) deals explicitly with that topic.

This same principle applies to § 316(a)(9), which grants authority to the PTO to prescribe regulations “setting forth standards and procedures for allowing the patent owner to move to amend the patent.” Obviously, this means only that the PTO can issue regulations *not in conflict with the statute*. See *Ernst & Ernst v. Hochfelder*, 425 U.S. 185, 213-14 (1976) (“The rulemaking power granted to an administrative agency charged with the administration of a federal statute is not the power to make law. Rather it is the power to adopt regulations to carry into effect the will of Congress as expressed by the statute.”) (citations omitted). Because there is a specific statutory requirement that a “petitioner shall have the burden of proving a proposition of unpatentability,” any implementing regulation that fails to reflect this Congressional intent is entitled to no deference. *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842-43 (1984) (regulations must “give effect to the unambiguously expressed intent of Congress.”).

As for the PTO’s policy argument that “[i]f a patent owner were not required to prove patentability, an amended patent could be put in place with untested claims” (PTO-Br. 23), this is simply untrue. By statute, amended claims must be narrower in scope than the issued claims and must have support in the specification. 35 U.S.C. § 316(d)(3). Since the issued claims were already examined and allowed by the PTO, any narrower claims with support in the specification are not “untested claims.” In any event, the PTO’s policy

considerations cannot trump the clearly expressed will of Congress that petitioners “*shall* have the burden of proving a proposition of unpatentability.” *Ernst & Ernst*, 425 U.S. at 213-14.

### III. CONCLUSION

For these reasons, this Court should vacate the Board’s denial of Aqua’s motion to amend and remand the case for further proceedings consistent with this Court’s obviousness jurisprudence and the APA.

Date: July 15, 2015

Respectfully submitted,

/s/ James R. Barney  
James R. Barney  
Timothy P. McAnulty  
David K. Mroz  
FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, LLP  
901 New York Avenue, NW  
Washington, DC 20001-4413  
(202) 408-4000

*Attorneys for Appellant  
Aqua Products, Inc.*

### **CERTIFICATE OF SERVICE**

I certify that on July 15, 2015, this REPLY BRIEF FOR APPELLANT AQUA PRODUCTS, INCORPORATED was filed electronically using the CM/ECF system and served via the CM/ECF system on counsel for the U.S. Patent and Trademark Office, as follows:

Nathan K. Kelley  
Farheena Rasheed  
Meredith Schoenfeld  
Scott C. Weidenfeller  
United States Patent and Trademark Office  
Office of the Solicitor  
P.O. Box 1450, Mail Stop 8  
Alexandria, VA 22313

/s/ John W. Kozikowski  
Litigation Legal Assistant  
Finnegan, Henderson, Farabow,  
Garrett & Dunner, LLP

**CERTIFICATE OF COMPLIANCE**

I certify that this BRIEF FOR APPELLANT AQUA PRODUCTS, INCORPORATED contains 6,973 words as measured by the word-processing software used to prepare this brief.

/s/ James R. Barney