2016-2321

United States Court of Appeals for the Federal Circuit

NIDEC MOTOR CORPORATION,

Appellant,

ν.

ZHONGSHAN BROAD OCEAN MOTOR CO., LTD., BROAD OCEAN MOTOR, LLC, and BROAD OCEAN TECHNOLOGIES, LLC,

Appellees.

Appeal from the United States Patent and Trademark Office Patent Trial and Appeal Board, IPR2014-01121, Sally C. Medley, Justin T. Arbes, Benjamin D. M. Wood, James A. Tartal, and Patrick M. Boucher, Administrative Patent Judges

REPLY BRIEF OF APPELLANT

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January 26, 2017

Case: 16-2321 Document: 55 Page: 2 Filed: 01/26/2017

CERTIFICATE OF INTEREST

Counsel for Patent Owner/Appellant certifies the following information in compliance with Federal Rule of Appellate Procedure 26.1 and Federal Circuit Rules 26.1 and 47.4:

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

Nidec Motor Corporation

2. The names of the real parties in interest (if the party named in the caption is not the real party in interest) represented by us is:

N/A

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of Nidec Motor Corporation are:

Nidec Americas Holding Corporation Nidec Corporation

4. The names of all law firms and the partners or associates that appeared for Nidec Motor Corporation before the Patent Trial and Appeal Board or are expected to appear in this Court are:

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TABLE OF CONTENTS

CERTIFIC	ATE C	F INT	ERESTi	
TABLE OF	F CON	TENT	Sii	
TABLE OF	FAUT	HORI'	ΓΙΕSiv	
LIST OF A	BBRE	VIAT	IONSvii	
I.	Intro	ntroduction1		
II.		Claims of the '349 Patent Are Not Obvious In View of the and Kocybik		
	A.	"HV	AC system" Should Be Afforded Patentable Weight1	
	В.	Cont	ler Teaches Elimination of the Claimed System roller and Bessler's Thermostat Cannot Correspond e Claimed "System Controller."	
	C.		ler Teaches Away from Incorporating Kocybik's rol Techniques into Bessler's HVAC System5	
III.	The (Claims	s of the '349 Patent Are Not Anticipated By Hideji8	
	A.		Board's Institution and Joinder Decision is ealable	
		1.	Cuozzo, not Achates, Controls8	
		2.	Alappat Does Not Hold that the Director Can Engage in Panel-Stacking to Advance Her Policy Positions	
		3.	The PTO's "Choice" of Adjudication is Unavailing	
		4.	The Board's Standard Operating Procedure Does Not Cure the Due Process Violation	

	В.		S.C. § 315(c) Precludes Joinder of a Party to its Proceeding.	19
	C.	Even	if Considered, Hideji Is Not Anticipatory	22
		1.	"Independent values of Q and d axis currents" Refers to Demand Currents.	22
		2.	Hideji Does Not Include Independent Q and d Axis Currents, As Properly Construed	25
		3.	Nor Does Hideji Include Independent Q and d Axis Currents, As Construed by the Board	26
CONCLUS	SION	•••••		31
CERTIFIC.	ATE C	F SER	RVICE	32
CERTIFIC	ATE C	F COI	MPLIANCE	33

TABLE OF AUTHORITIES

Cases

Achates Reference Publishing, Inc. v. Apple, Inc. 803 F.3d 625 (Fed. Cir. 2015)	, 18
Broadcom Corp. v. Qualcomm Inc. 543 F.3d 683 (Fed. Cir. 2004)	25
Cathedral Candle Co. v. ITC 400 F.3d 1352 (Fed. Cir. 2005)	22
Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc. 467 U.S. 837 (1984)	, 21
Click-to-Call Technologies, LP v. Oracle Corp. No. 2015-1242, 2016 WL 6803054 (Fed. Cir. Nov. 17, 2016)	10
Cuozzo Speed Technologies, LLC v. Lee 136 S. Ct. 2131 (2016) pas	sim
Deere & Co. v. Bush Hog, LLC 703 F.3d 1349 (Fed. Cir. 2012)	1
Husky Injection Molding Systems Ltd. v. Athena Automation Ltd. 838 F.3d 1236 (Fed. Cir. 2016)	10
<i>In re Alappat</i> 33 F.3d 1526 (Fed. Cir. 1994)	sim
<i>In re Beattie</i> 974 F.2d 1309 (Fed. Cir. 1992)	2
<i>In re Bilski</i> 545 F.3d 943 (Fed. Cir. 2008)	11
<i>In re DBC</i> 545 F.3d 1373 (Fed. Cir. 2008)	

In re Fine 837 F.2d 1071 (Fed. Cir. 1998)	7
Marks v. United States 430 U.S. 188 (1977)1	2
<i>Marmolejo-Campos v. Holder</i> 558 F.3d 903 (9th Cir. 2009)2	1
Michigan v. EPA 135 S. Ct. 2699 (2015)2	1
Morgan v. United States 304 U.S. 1 (1938)1	3
Pesquera Mares Australes Ltda. v. United States 266 F.3d 1372 (Fed. Cir. 2001)2	1
Promega Corp. v. Life Technologies Corp. 773 F.3d 1338 (Fed. Cir. 2014)	0
Regents of University of California v. Dakocytomation California, Inc. 517 F.3d 1364 (Fed. Cir. 2008)	5
SEC v. Chenery (Chenery I) 318 U.S. 80 (1943)	6
SEC v. Chenery (Chenery II) 332 U.S. 194 (1947)	8
Skidmore v. Swift & Co. 323 U.S. 134 (1944)2	2
Skyhawke Technologies v. L&H Concepts, LLC No. IPR2014-01485, 2015 WL 1306523 (P.T.A.B. Mar. 20, 2015)	2
United States v. Mead Corp. 533 U.S. 218, 230 (2001)2	.1

837 F.3d 1329 (Fed. Cir. 2016)
Winner International Royalty Corp. v. Wang 202 F.3d 1340 (Fed. Cir. 2000)2
Statutes
35 U.S.C. § 6(c)
35 U.S.C. § 7(b) (1988)
35 U.S.C. § 271(f)(1)
35 U.S.C. § 314(d)
35 U.S.C. § 315(b)
35 U.S.C. § 315(c)
Other Authorities
37 C.F.R. § 42.71(d)
Office Patent Trial Practice Guide 77 Fed. Reg. 48756 (Aug. 14, 2012)9
P.T.A.B. Standard Operating Procedure 1 (Revision 14)

LIST OF ABBREVIATIONS

Bessler U.S. Patent No. 5,410,230
BO BrBrief of Appellees, Broad Ocean
Broad Ocean Appellees Zhongshan Broad Ocean Motor Co., Ltd., Broad Ocean Motor, LLC, and Broad Ocean Technologies, LLC (collectively)
Hideji
KocybikPeter Franz Kocybik, <i>Electronic Control of Torque Ripple in Brushless Motors</i> (University of Plymouth, July 2000)
Nidec
PTO Intervenor Director of the U.S. Patent and Trademark Office
PTO Br Brief for Intervenor, PTO
SOP Standard Operating Procedures
The '349 Patent
The '379 Patent
The '449 Patent

I. INTRODUCTION

Broad Ocean's and the PTO's respective briefs do nothing to undermine the well-reasoned arguments raised in Nidec's opening brief. The Court should thus reverse and remand for the reasons stated therein and those discussed below.

II. THE CLAIMS OF THE '349 PATENT ARE NOT OBVIOUS IN VIEW OF BESSLER AND KOCYBIK

A. "HVAC system" Should Be Afforded Patentable Weight.

Under the analogous case *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1358 (Fed. Cir. 2012), the "HVAC system" limitation of the claims-at-issue should be afforded patentable weight, notwithstanding its location in the preamble. Nidec Br. 25-26. Broad Ocean does not dispute this construction, but merely asserts that the Court need not consider the issue at all. BO Br. 31-32.

But the "HVAC system" limitation further lends support to Nidec's teaching-away argument, because Kocybik nowhere suggests that its complex sinewave-commutated motors would have been suitable for use in an HVAC system, and the primary teaching of Bessler is away from complex control schemes in an HVAC system. This limitation should thus be given its proper patentable weight. *See Deere*, 703 F.3d at 1358.

Case: 16-2321 Document: 55 Page: 10 Filed: 01/26/2017

B. Bessler Teaches Elimination of the Claimed System Controller and Bessler's Thermostat Cannot Correspond to the Claimed "System Controller."

Despite Broad Ocean's bald assertion, BO Br. 29, Nidec does not concede there is a motivation to combine. Quite the contrary, Nidec plainly advanced that Bessler teaches away, establishing no motivation exists. See Winner Int'l Royalty Corp. v. Wang, 202 F.3d 1340, 1348 n.6 (Fed. Cir. 2000) (explaining that a lack of motivation to combine may be based on a reference teaching away from the proposed combination); In re Beattie, 974 F.2d 1309, 1315 (Fed. Cir. 1992) (Clevenger, J., dissenting) ("There can be no motivation or suggestion to combine when the prior art in fact teaches away from any combination."). Every challenged claim requires a system controller. And the '349 patent's specification and Dr. Blank's unrebutted testimony establish that such a controller develops system control signals, such as torque, speed, and airflow demand signals. Appx0768-0769, ¶ 35; Appx0052, Cols. 3:59-4:2; see also Appx0641-0642 (Dr. Ehsani's testimony agreeing with this interpretation); Appx0224, Col. 3:55-60 (Bessler confirming this interpretation). Meanwhile, the whole purpose of Bessler was to eliminate such a system controller from an HVAC system. See, e.g., Appx0222, Col. 2:3-5 ("It is an object of this invention to provide a central heating, air conditioning and ventilating system which

does not require a system controller."). Bessler thus teaches away from the claimed invention for this reason alone.

Broad Ocean counters by first arguing that the conventional thermostat 202 of Bessler "correlates with the recited 'system controller." BO Br. 43. But this argument fails to account for intrinsic (i.e., the '349 patent) and extrinsic (i.e., Drs. Ehsani's and Blank's testimony) evidence that the simple thermostat of Bessler is not a system controller within the meaning of the claims. That is, even though, as Broad Ocean asserts, in some embodiments the claimed system controller could be a thermostat, see, e.g., Appx0052, Col. 4:35-38, it does not follow that Bessler's thermostat is such a system controller, because the simple on/off signal that thermostat produces does not develop the types of signals required to qualify as a system controller of the claims, see Appx0223, Col. 4:41-45 (describing Bessler's thermostat 202 as merely "a mechanical switch generating a two state (on/off) signal"); see also Appx0769, ¶ 36 ("While the '349 specification states that the system controller may be 'a thermostat . . . ,' this does not eliminate the requirement that the system controller be developing the types of signals set forth above.").

Broad Ocean further asserts, for the first time, that the '349 patent's description of the control signals as analog signals in some embodiments reinforces that Bessler's thermostat can correspond to the claimed system controller. *See* BO

Case: 16-2321 Document: 55 Page: 12 Filed: 01/26/2017

Br. 9, 44 (citing Appx0052, Col. 3:59-62). But this argument was not before the Board, did not form part of its decision, and therefore cannot be used as a basis for affirmance. *See SEC v. Chenery (Chenery I)*, 318 U.S. 80, 87-88 (1943) (establishing the bedrock principle of administrative law—the *Chenery* doctrine—that an appellate court cannot affirm an agency decision on grounds other than those upon which the agency's action was based).

In any event, the portion of the '349 patent that Broad Ocean quotes comes from the same paragraph that establishes the nature of the system control signals (i.e., that they define demanded torque, speed, or airflow of the system), and the disclosure further defines the analog or digital signals as those variety of signals. *See* Appx0052, Cols. 3:66-4:2. No evidence supports Broad Ocean's contention that the system demand signals of this type cannot be analog. Indeed, *both* experts testified one of ordinary skill would understand a system controller produces the types of signals identified above—not merely the simple on/off cyclic signal of Bessler. *See* Appx0768-0770, ¶¶ 35-36; Appx0641-0642.

Broad Ocean incorrectly contends that Nidec argued the system control signals are limited to the signals specifically called for in the dependent claims, and relatedly that under the doctrine of claim differentiation, Nidec is improperly attempting to narrow the "one or more control signals" recited in independent claims

1, 16, and 19 to signals recited in dependent claims 11, 12, and 20. BO Br. 46. Those signals defined in the dependent claims *can* be control signals, but control signals are not so limited. And because the dependent claims 11, 12, and 20 in turn narrow the broader control signals of the independent claims, the doctrine of claim differentiation still applies. In any event, "the presumption created by the doctrine of claim differentiation is 'not a hard and fast rule and will be overcome [as here] by a contrary construction dictated by the written description or prosecution history." *Regents of Univ. of Cal. v. Dakocytomation Cal., Inc.*, 517 F.3d 1364, 1375 (Fed. Cir. 2008) (citation omitted).

C. Bessler Teaches Away from Incorporating Kocybik's Control Techniques into Bessler's HVAC System.

Moreover, there is no substantial evidence supporting the Board's rejection of Nidec's teaching away arguments. One of skill has to ignore the fundamental teaching of Bessler to reduce complexity and controllers in HVAC systems in order to then turn around and equip Bessler's HVAC with a digital signal processor (DSP) or the like necessary to effect sinewave commutation. *See* Nidec Br. 29-32. The Board suggested that Bessler's "integral microprocessor in its motor controller that can interpret, for example, the cycling on/off signal of the thermostat and *directly* create motor control signals without the need of a system controller developing

interim system demand signals" could be used to effect sinewave commutation. Appx0030 (citations omitted). But there is simply no evidence in the record establishing that Kocybik's teaching of a sinewave system can operate by using such a simplistic microprocessor without the system controller expressly eliminated by Bessler.

Broad Ocean instead suggests that sinewave commutation could be effected by "programming the microprocessor 302 [of Bessler] to use the sinewave commutation disclosed in Kocybik or replacing microprocessor 302 with a [DSP] that implements the sinewave commutation disclosed in Kocybik." BO Br. 48. These arguments, however, stray from the reasoning adopted by the Board, *see* Appx0030, and thus are barred by the *Chenery* doctrine, *see Chenery I*, 318 U.S. at 87-88. Moreover, this argument ignores that reprogramming Bessler's microprocessor 302 or upgrading to a DSP flies in the face of Bessler's main purpose: to simplify the prior-art systems by providing a primitive microprocessor that merely interprets cyclic on/off signals.

More fundamentally, the problem with Broad Ocean's and the Board's position is that it ignores the core teaching of Bessler in pure hindsight reconstruction of the claim. Bessler—indeed, even Broad Ocean's own expert, Dr. Ehsani—evidence that the common understanding shared among those skilled in the

art at the time of the '349 patent's invention was that HVAC systems required only simple drive systems, and thus improvements would come in the form of *reducing or eliminating* hardware therein. *See* Appx0225, Cols. 7:61-8:8; Appx0634 (opining that the inventors had "killed this fly with a sledge hammer"). To arrive at the proposed combination, Broad Ocean and the Board have to conveniently ignore this teaching. *See In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1998) (explaining that the Board "cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention").

Kocybik piles on by only referring to sinewave use in "high precision control tasks." Appx0262-0263, Appx0265-0266. Everyone here agrees HVAC is not such a high precision control task.

Broad Ocean offers a handful of other arguments which deserve short shrift. First, Broad Ocean accuses Nidec of "resurrect[ing]" its economic infeasibility argument, BO Br. 49-51. Nidec has not argued economic infeasibility on appeal, and this argument needs no further response.

Moreover, Broad Ocean cites to Hideji as allegedly "favorably disclos[ing] using sinewave commutation in an HVAC system motor," BO Br. 53-54, and cites to the '449 patent as evidence confirming the "motivation to combine" Bessler and Kocybik. Broad Ocean never argued either of these points below. Thus, Broad

Ocean's citation to Hideji and the '449 patent here is, once again, impermissible under *Chenery I. See* 318 U.S. at 87-88. Indeed, had Broad Ocean petitioned for IPR under § 103 in light of Hideji and/or the '449 patent, Nidec would have had the opportunity to develop a record demonstrating the flaws of these arguments at that time. Simply put, these arguments belong, if ever, at the outset of the IPR, not through this eleventh-hour argument.

In short, because the Board never found, nor does Appellee cite, any evidence that Kocybik's sinewave system could operate without the system controller eliminated by Bessler, the Court would have to ignore Bessler's teaching entirely to arrive at the claims.

III. THE CLAIMS OF THE '349 PATENT ARE NOT ANTICIPATED BY HIDEJI

A. The Board's Institution and Joinder Decision is Appealable.

1. Cuozzo, not Achates, Controls.

The Supreme Court recently explained that 35 U.S.C. § 314(d) does not categorically preclude review of "appeals that implicate constitutional questions, that depend on other less closely related statutes [to § 314], . . . that present other questions of interpretation that reach, in terms of scope and impact, well beyond 'this section' [, i.e., § 314]," or when the PTO has "act[ed] outside its statutory limits." *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2141-42 (2016). Nidec's

challenge to the institution decision falls squarely within *Cuozzo*'s exceptions because, among other reasons, the Board acted *ultra vires* by using 35 U.S.C. § 315(c) as an end-run around to institute IPR outside of 35 U.S.C. § 315(b)'s one-year window, and the PTO's use of a stacked panel to advance the Director's policy positions violates Nidec's due process rights. *See* Nidec Br. 38-43.

Broad Ocean and the PTO deflect this Supreme Court precedent by first relying on the pre-*Cuozzo* Federal Circuit case *Achates Reference Publishing, Inc. v. Apple, Inc.*, 803 F.3d 625 (Fed. Cir. 2015) for the proposition that the Board's \$ 315(b) and (c) decisions are unreviewable. *See* Broad Ocean Br. 59; PTO Br. 13-14.

Achates is distinguishable for at least the reasons provided in Nidec's opening brief—namely, Achates (1) did not involve a stacked panel on rehearing, (2) involved a discretionary question (privity) previously addressed by notice-and-comment rulemaking, and (3) turned on an inquiry the PTO itself has characterized as "fact-dependent," which should be handled on a "case-by-case basis." See Nidec Br. 43-45; Office Patent Trial Practice Guide, 77 Fed. Reg. 48756, 48759 (Aug. 14, 2012).

Moreover, *Achates* was issued pre-*Cuozzo* and thus must yield to the Supreme Court precedent. Although a panel of this Court previously held that *Achates*

remained good law, that decision has since been vacated and will be reheard en banc. See Wi-Fi One, LLC v. Broadcom Corp., 837 F.3d 1329 (Fed. Cir. 2016), vacated, Order on Pet. for Reh'g at 2 (Fed. Cir. Jan. 4, 2017). The continued viability of Achates is thus questionable at best. See Click-to-Call Techs., LP v. Oracle Corp., No. 2015-1242, 2016 WL 6803054, at *2 (Fed. Cir. Nov. 17, 2016) (O'Malley, J., concurring) (questioning continued viability of Achates after Cuozzo); id. at *9 (Taranto, J., concurring) (same).

The PTO also analogized the instant appeal to *Husky Injection Molding Systems Ltd. v. Athena Automation Ltd.*, 838 F.3d 1236 (Fed. Cir. 2016). *See* PTO Br. 14. That case relied heavily on *Achates*, and thus, too, is in jeopardy in light of *Wi-Fi. See Husky*, 838 F.3d at 1244-47. In any event, *Husky* did not involve § 315(b) or (c), and this is of limited value. *See id.* at 1241.

Finally, the forthcoming *en banc* opinion can only bolster Nidec's appealability argument. If the *Wi-Fi* Court concludes that *Achates* is no longer viable post-*Cuozzo*—i.e., that the Board's § 315(b) determinations are appealable—then the institution decision here would not only be reviewable under *Cuozzo* as argued in Nidec's opening brief, but also under *Wi-Fi* as well.

Case: 16-2321 Document: 55 Page: 19 Filed: 01/26/2017

2. Alappat Does Not Hold that the Director Can Engage in Panel-Stacking to Advance Her Policy Positions.

In an effort to further distance the institution decision from *Cuozzo*'s exceptions, Broad Ocean and the PTO point to allegedly "*en banc*" pronouncements from the Court's decision in *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994), *abrogated in-part by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008). Broad Ocean and the PTO assert that, under *Alappat*, the Director can stack panels to manufacture a desired outcome, and thus there are no due process implications here. *See*, *e.g.*, Broad Ocean Br. 62; PTO Br. 21-22.

There was no such "en banc" holding. To be sure, Alappat was heard by the full Court. But the quotations Broad Ocean and PTO repeatedly rely on garnered only four of the Court's eleven votes and thus are not precedential.

Namely, these quotations come from the portion of the plurality opinion addressing whether, under 35 U.S.C. § 7(b) (1988), 1 a decision of an expanded panel was "a valid decision over which this court may exercise subject matter jurisdiction." *Alappat*, 33 F.3d at 1530 (Rich, J., plurality opinion). Although this point was not contested on appeal, the *en banc* Court *sua sponte* raised the issue. *Id.* at 1530 (Rich, J., plurality opinion).

¹ A similarly worded provision now appears at 35 U.S.C. § 6(c), but now states that the Director, not the Commissioner, designates members of the panel.

In the plurality opinion authored by Judge Rich, *four* of the eleven judges held that the Commissioner's actions in expanding the panel were permissible, even if he did so with the goal of convening a "panel which he knows or hopes will render the decision he desires." *Id.* at 1535 (Rich, J., plurality opinion). This reasoning, *which did not receive a majority vote*, is not precedential. *See Marks v. United States*, 430 U.S. 188, 193 (1977). Three additional judges concurred in the result, but notably *not* the reasoning offered by Judge Rich. *Id.* at 1530 (Rich, J., plurality opinion).

For example, without joining Judge Rich's opinion, Chief Judge Archer, joined by Judge Nies, opined that the Court had jurisdiction because the validity of the Board's composition was a procedural matter waived by Alappat. *See, e.g., id.* at 1545-46, 1550 (Archer, C.J., concurring in part and dissenting in part) ("Where the parties have not challenged the agency's action, and when asked, both parties argue to support it, the court lacks the benefit of advocacy that a controversy otherwise engenders and should proceed with caution in setting out any very-broad rules."). Writing separately, Judge Plager believed that "Chief Judge Archer in his opinion comes closer to the answer in today's jurisdictional puzzle" and thus simply "concur[red] in the [C]ourt's decision to proceed to address the merits." *Id.* at 1581 (Plager, J., concurring).

To the extent Broad Ocean and the PTO are instead suggesting that the plurality opinion should be persuasive on the issue because it was entered in the context of an en banc hearing, the opinions of the four judges in dissent would seemingly carry a similar level of persuasiveness. And at least some of those judges were emphatic that the Commissioner *cannot* stack the panel as was done below. See id. at 1574, 1576-77 (Mayer, J., dissenting) (opining that it was "abundantly clear" that "the Commissioner 'stacked' the [B]oard," which is "illegal": "That courts and judges are to be free from outside influence in rendering decisions is unquestionably a basic concept of jurisprudence."); id. at 1574-75 (Mayer, J., dissenting) ("To allow the Commissioner to gerrymander the composition of the [B]oard to insure a preordained result directly conflicts with the concept 'that in administrative proceedings of a quasi-judicial character the liberty and property of the citizen shall be protected by the rudimentary requirements of fair play." (quoting Morgan v. *United States*, 304 U.S. 1, 14-15 (1938))).

Broad Ocean also cites Judge Rich's plurality opinion for the proposition that Nidec waived its due process argument by allegedly "acquiescing to Commissioner's actions in this case." Broad Ocean Br. 61 (quoting *Alappat*, 33 F.3d at 1536 (Rich, J., plurality opinion)). But the portion Broad Ocean cites is merely where Judge Rich explained that because the issue was raised *sua sponte*, the Court

was declining to address any due process implications. *See* 33 F.3d at 1536 (Rich, J., plurality opinion); *see also id.* at 1532 n.4 (Rich, J., plurality opinion). Importantly, each of the seven judges who agreed that the Court did have jurisdiction carefully noted that it would save the due process considerations for another day. *See id.* at 1532 n.4 (Rich, J., plurality opinion); *id.* at 1545, 1548 (Archer, C.J., concurring in part and dissenting in part); *id.* at 1581 (Plager, J., concurring) (noting that "*there remains opportunity for attack* should the Commissioner again reconstitute a board the way he did here," including whether there is "a due process question," but "that attack has not here been launched" (emphasis added)). In contrast, Nidec preserved this argument by opposing rehearing by an expanded panel below, *see*, *e.g.*, Appx1724-1727, and then by raising the due process implications of the ultimately configured panel in its opening brief, *see*, *e.g.*, Nidec Br. 40-43.

Broad Ocean additionally cites *In re DBC*, 545 F.3d 1373 (Fed. Cir. 2008), seemingly to assert that because the specific due process argument was not raised below, it is now waived. BO Br. 61. But unlike *DBC*, Nidec *did* oppose an expanded panel here, and it could not have anticipated the due process violation merely because an expanded panel was sought and granted.

It was not until the Solicitor's frank comments during oral argument in *Yissum*, see, e.g., Appx1004-1006, Appx1011-1012, Appx1017, that Nidec could

Case: 16-2321 Document: 55 Page: 23 Filed: 01/26/2017

have appreciated that the expanded panel was stacked in order to manufacture a decision on rehearing. And by that time, December 7, 2015, *see* http://www.cafc.uscourts.gov/node/19764, Nidec's opportunity to request rehearing of the October 5, 2015 institution decision by the expanded panel had passed, *see* Appx0932; 37 C.F.R. § 42.71(d) (setting time period for a request to rehear a decision to institute at 14 days). Instead, Nidec raised the due process question on appeal at the Federal Circuit.

Moreover, under *DBC*, this Court has discretion to hear even waived arguments. 545 F.3d at 1379-81. Because the PTO's practice of panel-stacking violates "a basic concept of jurisprudence," *see Alappat*, 33 F.3d at 1574, the Court should exercise their discretion to hear the issue.

Broad Ocean also cites *Alappat* as allegedly standing for the proposition that the *only* due process argument available to Nidec was that the "Acting Chief Judge instructed Judges Medley and Arbes how to vote." Broad Ocean Br. 63 (citing *Alappat*, 33 F.3d at 1535 (Rich, J., plurality opinion)). There is simply no reading of *Alappat* to support this contention, because, again, the Court reserved the due process question for another day. *See Alappat*, 33 F.3d at 1536 (Rich, J., plurality opinion); *id.* at 1548 (Archer, C.J., concurring in part and dissenting in part); *id.* at 1581 (Plager, J., concurring).

For its part, the PTO argues that this issue was fully before, and thus presumably considered by, the *Yissum* Court. *See* PTO Br. 31-32. That is not so. There, suggesting that the Board "arrived at a policy position through what might be considered panel stacking," Judge Taranto asked the patent owner's counsel, "You haven't challenged that, right, under either APA or statutory or due process grounds of the sort that were talked about a bit in the dissent in *Allapat* [sic]?" Appx0975-0976. The patent owner's counsel replied, "Right." Appx0976.

3. The PTO's "Choice" of Adjudication is Unavailing.

The PTO also argues that, even though its interpretation of § 315(c) has not been subjected to notice-and-comment rulemaking, Nidec's due process rights have not been violated because there is allegedly "a very definite place for the case-by-case evolution of statutory standards." PTO Br. 24-25 (quoting *SEC v. Chenery (Chenery II)*, 332 U.S. 194, 203 (1947)).

But *Chenery II* cuts against the PTO's arguments. There can be no "case-by-case evolution" here, because any Board decision advancing a different interpretation of § 315(c) may be simply reset by an expanded panel, which the PTO then shields from judicial review under § 314(d). The PTO ducks this issue by asserting that, "as shown in *Skyhawke*, in the absence of a rehearing request from a party, the agency has not taken further action." PTO Br. 23-24 (citing *Skyhawke*)

Techs. v. L&H Concepts, LLC, No. IPR2014-01485, 2015 WL 1306523 (P.T.A.B. Mar. 20, 2015)). However, there is nothing in the Board's standard operating procedures that would preclude rehearing absent a request from the parties. See P.T.A.B. Standard Operating Procedure 1 (Revision 14) [hereinafter, "SOP"], at 3-5.

Moreover, the PTO conspicuously omits that *Chenery II* couched the above-quoted passage by explaining that "[t]he function of filling in the interstices of the [the statutes at issue] *should be performed, as much as possible, through* [the] quasilegislative promulgation of rules to be applied in the future," and thus case-by-case adjudication is best saved for situations where (1) "problems . . . arise in a case which the administrative [sic] agency could not reasonably foresee," (2) situations where "the agency may not have had sufficient experience with a particular problem to warrant rigidifying its tentative judgment into a hard and fast rule," or (3) "the problem may be so specialized and varying in nature as to be impossible of capture within the boundaries of a general rule." 332 U.S. at 202-03 (emphasis added).

There are no such situations here. Whether § 315(c) permits a party to join issues to its own already pending IPR is a problem the PTO could reasonably foresee; indeed, it is one which the agency regularly encounters. Moreover, the issue

here is one that involves a straightforward issue of statutory interpretation, not a "specialized and varying" problem that must be resolved on a case-by-case basis.

4. The Board's Standard Operating Procedure Does Not Cure the Due Process Violation.

Finally, the PTO asserts that there was no due process violation here because the expanded panel was designated in line with the Board's Standard Operating Procedures. *See* PTO Br. 26-30 (citing SOP 2-4). This section of the PTO's brief is devoid of any evidence, and thus the Court simply has no way of knowing whether or not these procedures were followed. Conspicuously absent from this portion of the brief is a denial that the two additional panel members—Judges Medley and Arbes—were added for the sole purpose of achieving a known result; namely, reversal of the initial panel's § 315(c) interpretation. Because the PTO alleged that panel stacking is appropriate under *Alappat* and failed in any way to deny it had occurred despite making other factual allegations outside of the record regarding the procedure it followed, one can only conclude panel stacking did occur here.

Broad Ocean's and the PTO's attempt to remove the instant case from *Cuozzo*'s exceptions by relying on *Achates*, *Alappat*, *Chenery II*, and the Board's SOP is misplaced. Instead, the Court can and should review the Board's institution decision here.

B. 35 U.S.C. § 315(c) Precludes Joinder of a Party to its Own Proceeding.

And once the Board's institution decision is reviewed, it is clear the Board's interpretation of § 315(c) cannot stand. Section § 315(c) permits joinder of *a party* to an already pending IPR. *See* § 315(c) ("the Director, in his or her discretion, *may join as a party* to [an] inter partes review any person who properly files a petition under section 311..." (emphasis added)). There is no reasonable reading of that section supporting Broad Ocean's and the PTO's interpretation that a party to an already instituted IPR can use § 315(c) a vehicle for joining new, time-barred *issues*. Section 315(c) is unambiguous on this point, *see* Nidec Br. 47-51, and even if ambiguous, legislative history supports Nidec's interpretation, *see id.* at 52-54.

In response, Broad Ocean and the PTO essentially rehash the Board's argument that § 315(c)'s use of the term "any person" in connection with "who properly files a petition under section 311" somehow upends the plain and unambiguous meaning of what can be joined to a pending proceeding: "a party." The flaws of this argument are readily exposed in Nidec's opening brief.

The PTO also likens this case to *Promega Corp. v. Life Technologies Corp.*, 773 F.3d 1338 (Fed. Cir. 2014). PTO Br. 34-35. But there, the Federal Circuit interpreted 35 U.S.C. § 271(f)(1) as encompassing inducement of one's own self to

infringe a patent because § 271(f)(1) does not explicitly provide who may be induced. *See id.* at 1351 ("The statute is written such that an activity—'the combination'—is the object of 'induce,' not a person."). In contrast, the verb "join" in § 315(c) is immediately qualified by the phrase "as a party." Who is eligible for joinder here—a non-party—could not be clearer.

Remarkably, Broad Ocean and the PTO further assert that the expanded panel's interpretation of § 315(c) should be afforded deference under *Chevron*, *U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984). This is wrong for several reasons.

Most fundamentally, "[i]f the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Chevron*, 467 U.S. at 842-43. Here, the statute is clear: § 315(c) permits joinder of *a party*. "[T]hat is the end of the matter." *Id*.

Second, Broad Ocean's and the PTO's insistence that the Board's interpretation of a statute *in a nonprecedential decision* garners *Chevron* deference is truly a self-serving reading of *Chevron*. Broad Ocean and the PTO cite not a single case where a nonprecedential decision from the Board was granted *Chevron* deference. Indeed, this Court has made clear that *Chevron* deference is reserved for interpretations advanced in formal notice-and-comment rulemaking procedures or

Issued in connection with *precedential* decisions. See Pesquera Mares Australes Ltda. v. United States, 266 F.3d 1372, 1380 (Fed. Cir. 2001) (citing United States v. Mead Corp., 533 U.S. 218, 230 (2001)); see also Marmolejo-Campos v. Holder, 558 F.3d 903, 909 (9th Cir. 2009) ("Our cases applying Mead treat the precedential value of an agency action as *the* essential factor in determining whether Chevron deference is appropriate." (citation omitted)).

Third, *Chevron* deference cannot save the Board's flawed reading of § 315(c). At the most basic level, *Chevron* deference would leave the Court at square one, because the Board's unanimous decision in *Skyhawke*—which held that "[a] person cannot be joined *as a party* to a proceeding in which it is already a party"—would be due the same deference.

But beyond that, *Chevron* only "allows agencies to choose among competing *reasonable* interpretations of a statute; it does not license interpretive gerrymanders under which an agency keeps parts of statutory context it likes while throwing away parts it does not." *Michigan v. EPA*, 135 S. Ct. 2699, 2708 (2015) (emphasis added). Here, it is simply unreasonable to "throw[] away" the "as a party" limitation of § 315(c) in order to allow a petitioner an end-run around to join time-barred arguments to a pending IPR. *See id*.

Skyhawke also dooms the PTO's argument that some lesser amount of deference nonetheless applies under Cathedral Candle Co. v. ITC, 400 F.3d 1352 (Fed. Cir. 2005). See PTO Br. 37. Namely, Cathedral Candle—in which the Court granted the ITC deference under Skidmore v. Swift & Co., 323 U.S. 134 (1944)—made clear that such Skidmore deference requires, among other factors, that "the agency's position has been consistent and reflects agency-wide policy." 400 F.3d at 1366 (emphasis added). Skyhawke shows that panels are not consistent on this point.

C. Even if Considered, Hideji Is Not Anticipatory.

1. "Independent values of Q and d axis currents" Refers to Demand Currents.

Nidec demonstrated why the phrase "independent values of Q and d axis currents" must correspond to demand currents. Nidec Br. at 56-61. In response, Broad Ocean defends the Board's construction that this term instead refers to *actual* currents. BO Br. 33-42.

Broad Ocean does so by first attacking Dr. Blank's opinion that the independent Q and d axis currents must necessarily be demand currents, Appx0753-0754, ¶12, because, allegedly, his testimony is "devoid of citations to any supporting intrinsic evidence" and "fail[s] to identify any language in the challenged claims that require the independent values of Q and d axis currents be developed by

the motor controller in response to signals received from the system controller," BO Br. 36-37. These arguments are specious. Dr. Blank's testimony was entered in connection with the claims-at-issue, quoted directly the Board's initial construction, cited to the corresponding claim language itself and how that claim language interrelates, and concluded that the currents must necessarily be demand currents. *See* Appx0752-0754, ¶¶ 11-12.

Second, Broad Ocean's strained construction that nothing in the claims requires the added claim phrase "using independent values of Q and d axis currents" to refer to demand currents unnaturally divorces the language from the claim and undisputed operation of the technology. Broad Ocean does not dispute the claim requires the sinewave commutation be developed in response to system control signals. A motor controller of the claim does so by calculating demanded Q and d axis currents, which is what establishes the commutated wave forms. Therefore, for the controller to use independent values of Q and d axis currents to perform sinewave commutation, it must do so in the creation of those current demands, which is how it effects sinewave commutation.

Third, Broad Ocean states that Dr. Ehsani's testimony, when read in light of the '379 patent, Col. 6:1-7, represents the "substantial evidence supporting the Board's clarified construction," asserting that Dr. Ehsani testified that in "an ideal

PM motor, it is the *actual* I_d value that is assumed to be zero and only the *actual* I_q value would serve to produce torque in the motor." BO Br. 40. But Dr. Ehsani instead explained:

That d-axis flux (λd) , and the current that produces it (i_d) , serve to "magnetize" the machine. The quadrature axis flux (λq) , and the current that produces it (i_q) serve to produce torque in the machine. . . . In an ideal PMAC motor, if the q-axis current is set to a particular value, *and* the d-axis is set to zero, the motor would create an amount of torque proportional to the q-axis current.

Appx0481-0482, ¶¶ 17-18 (emphasis added).

Dr. Ehsani was thus merely testifying how an ideal PM motor behaves if the $demand~I_d$ is set to zero. Appx0483, ¶ 18. It defies logic to suggest that one could somehow "set" an actual (i.e., measured in feedback) current to zero. The actual current is a result of demand and motor conditions; i.e., it is a measurement, not a setting. Thus, this "substantial evidence" cuts against Broad Ocean's argument.

Finally, although Nidec pointed out that the paragraph from the '379 patent quoted by the Board (Col. 6:1-7) refers to demand, not actual, currents, *see* Nidec Br. 58-59, Broad Ocean asserts these arguments are waived, BO Br. 41 (citing

Broadcom Corp. v. Qualcomm Inc., 543 F.3d 683, 694 (Fed. Cir. 2004) ("A party may not introduce new claim construction arguments on appeal.")).

That case is inapposite. *Broadcom* dealt with waiver for failure to advance a proffered construction prior to appeal (there, that "network" meant "a plurality of network devices"). 543 F.3d at 694. Nidec proffers no new construction here—it still argues, as it did before the Board, that "independent values of Q and d axis currents" refers to demand, not actual, currents. *See, e.g.* Appx1542 (Nidec's demand-current argument); Appx0022 (Board acknowledging Nidec's construction).

Instead, Nidec's argument regarding the three preceding paragraphs of the '379 patent is offered in response to the Board's reasoning appearing *for the first time in its final decision*. *See* Appx0023. Broad Ocean's reading of *Broadcom*—i.e., that an aggrieved party cannot point out errors arising for the first time in the Board's final written decision—is a truly novel (and unworkable) view of waiver.

Accordingly, the Court should reverse the Board's erroneous constructions.

2. Hideji Does Not Include Independent Q and d Axis Currents, As Properly Construed.

Accordingly, the claims require that the *demand* Q and d axis currents must be independent. And it is indisputable that the demand d-axis current (I_d) in Hideji is dependent on some Q axis current (I_q). See, e.g., Appx0201, ¶¶ 0038-39 ("The

Case: 16-2321 Document: 55 Page: 34 Filed: 01/26/2017

flux current I_d target value is equal to $k \times I_q$.").² The Board's decision, which relied on the alleged independency of Hideji's *actual* I_d and I_q currents, *see* Appx0037-0039, should be reversed on this basis alone.

Broad Ocean attempts to save the Board's decision by arguing that Hideji nonetheless discloses independent values of *demand* Q and d axis values—namely, the target I_d value is allegedly derived from the *actual* I_q value, not a *demand* I_d. *See* BO Br. 73-76. The flaws of this argument notwithstanding (which will become apparent in light of the discussion below), this argument is impermissible under *Chenery I* because it simply was not the reasoning advanced by the Board. *See* 318 U.S. at 87-88; Appx0039 (explaining that Nidec's dependency argument "is irrelevant in light of our construction of 'using independent values of Q and d axis currents.'").

3. Nor Does Hideji Include Independent Q and d Axis Currents, As Construed by the Board.

Even if the Court disagrees with Nidec's construction, Hideji does not disclose independent actual currents. At the outset, Broad Ocean blatantly mischaracterizes Nidec's position as "not disput[ing] that the *actual* Iq and the *actual*

 $^{^2}$ As discussed below in response to Broad Ocean's argument, it's inconsequential whether this is the actual I_q or demand I_q , because in Hideji's continuous control loop, one is merely a measurement of the other.

I_d value, when output by Hideji's three-phase/two-phase coordinate conversion part 36, are independent of each other." BO Br. 71. The Court need not look any further than the second sentence of the section of Nidec's brief addressing this issue: "At the outset, Hideji's actual Iq and Id are simply not 'independent.'" Nidec Br. 64.

Moreover, Nidec continued by explaining that the actual currents, which are part of a feedback path of Hideji's driving device 50, are merely measured results of the current set by the *dependent* demand I_d and I_q . No evidence or argument has ever rebutted that the actual I_d and I_q currents are simply a transformation of measured currents being sent to the motor. Measuring a current does not create a current, much less create independent currents—i.e., currents that do not "rely[] on one to derive the other." *See* Appx0023. Thus whether the " I_q " in Hideji's equation ($I_d = k \times I_q^2$) is read as the target I_q , or, as Broad Ocean argues, the actual I_q , *see* BO Br. 72, is of no consequence. It is indisputable that "actual" I_q is a measured result of the current set by "demand" I_q , and, moreover, that I_d (demand or actual) is in turn dependent on I_q . *See* Appx0201. Thus, even under the Board's flawed construction, Hideji cannot anticipate for this reason.

Additionally, Nidec showed that there is no anticipation because there is no disclosure in Hideji regarding *how* the actual I_d and I_q currents are transformed in the three-phase/two-phase coordinate conversion part 36. Thus, there is no support

for the proposition that those currents are created "without relying on one to derive the other." *See* Appx0023. The *only* evidence the Board points to as supporting the assertion that the transformation in part 36 results in "independent" currents is the fact that there are two separate lines coming from part 36, coupled with Dr. Ehsani's assurance that these "separate" lines are "independent."

But the entirety of Dr. Ehsani's opinion on the matter was: "Hideji also discloses that the motor controller uses independent values of q- and d- axis currents." Appx0489, ¶ 38. This sparse evidence hardly provides a basis to conclude that the actual currents I_d and I_q are created without relying on one to derive the other. Indeed, *Dr. Ehsani's testimony was proffered in light of an erroneous construction of the term explicitly rejected by the Board. See* Appx0481-0482, ¶ 17 (Dr. Ehsani's proffered construction that "i_d and i_q are also independent of each other (orthogonal)"); Appx0178-0179 (rejecting Dr. Ehsani's construction, explaining: "Although we accept Dr. Ehsani's explanation that orthogonal magnetic fields are independent of each other, the claims refer specifically to scalar *values* of Q and d axis values, not to vector fields.").

Perhaps recognizing this deficiency, Broad Ocean contends that Dr. Blank testified that "motor controllers use the equations for calculating I_q and I_d presented in paragraph 26 of his IPR2014-01122 declaration, which would necessarily result

in independent values of Q and d axis currents." BO Br. 71 (citing Appx1321, *l.* 16 to Appx1324, *l.* 1). Dr. Blank's testimony, however, was simply that in a hypothetical situation where three-phase currents, I_A, I_B, and I_C are converted to two-phase currents I_d and I_q using specifically referenced equations that are nowhere disclosed in Hideji, the resulting I_d and I_q would be independent. Appx1322, *l.* 8 to Appx1324, *l.* 1. Notably, the hypothetical did not touch on whether Hideji's part 36 resulted in independent currents. Indeed, on redirect Dr. Blank clarified that Hideji *does not* "disclose that the motor controller is developing sinewave commutation using independent Q and d axis currents" and further expounded that the I_d and I_q coming from part 36 "have nothing to do with the I_q and I_d" of the '349 patent. Appx1357, *l.* 12 to Appx1358, *l.* 24.

In yet another questionable citation of Dr. Blank's testimony, Broad Ocean asserts that, according to him, "the fact that the I_d target value is equal to K x actual I_q²... does not detract from the independence of actual I_q and actual I_d values." BO Br. 72 (citing Appx1337, *l*. 21 to Appx1339, *l*. 3). What Broad Ocean fails to note, however, is that the entire stretch of Dr. Blank's testimony cited was preceded by Broad Ocean's counsel asking Dr. Blank to assume that the currents outputted from part 36 were independent. Appx1337, *l*. 24 to Appx1338, *l*. 2. Dr. Blank was thus merely testifying that under the assumption posited by Broad Ocean's counsel, the

actual I_d and I_q values would be independent. But, as discussed, he was *not* of the opinion that the currents leaving part 36 were, in fact, independent, Appx1357, *l.* 12 to Appx1358, *l.* 24, and thus his answer to counsel's hypothetical is simply irrelevant.

Case: 16-2321 Document: 55 Page: 39 Filed: 01/26/2017

CONCLUSION

For the reasons set forth above and in Nidec's opening brief, Nidec requests that the Board's determination that claims 1-3, 8, 9, 12, 16, and 19 of U.S. Patent No. 7,626,349 are unpatentable be reversed and the case remanded to the Board for further proceedings.

Respectfully submitted,

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United States Court of Appeals for the Federal Circuit

Nidec Motor Corporation v. Zhongshan Broad Ocean Motor Co. et al., 2016-2321

CERTIFICATE OF SERVICE

I, Justin Crawford, being duly sworn according to law and being over the age of 18, upon my oath depose and say that on **January 26, 2017**, counsel of record has authorized me to electronically file the foregoing **Reply Brief of Appellant** with the Clerk of Court using the CM/ECF System, which will serve via e-mail notice of such filing to all counsel registered as CM/ECF users, including any of the following principal counsel:

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January 26, 2017

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January 26, 2017

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